UNIVERSITY OF CINCINNATI
COURSE DESCRIPTIONS

REPORT TO
THE HIGHER LEARNING COMMISSION
OF THE NORTH CENTRAL ASSOCIATION
OF COLLEGES AND SCHOOLS
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Please note: Comprehensive college-specific bulletins can be found on the University of Cincinnati Web site (http://www.uc.edu/bulletins/).
COLLEGE OF ALLIED HEALTH SCIENCES

COURSE DESCRIPTIONS
Advanced Medical Imaging Technology

35AMIT301 Pathophysiology for Diagnostic Medical Imaging
The goal of this course is to familiarize students with normal human physiology, and to learn how alterations in function lead to disease. Emphasis will be placed upon pathologies altering diagnostic medical images. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35AMIT401 Human Sectional Anatomy
A regional survey of human anatomy in all sectional planes. It is primarily intended for Advanced Medical Imaging Technology students but may be taken by other College students to satisfy requirements or electives. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

35AMIT402 Sonography Seminar I
The first in a seminar series on professional development, clinical correlation, student presentations, current issues, and other miscellaneous topics in sonography. Case study presentations will be an integral part of this course. Guest speakers may be utilized on an occasional basis to enhance the presentation. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35AMIT403 Introduction to Diagnostic Medical Sonography
An introductory course to the health care field of sonography. History of ultrasound, medical terminology and professional organizations specific to the discipline, and introduction to the ultrasound system will be covered. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35AMIT404 Sonography Seminar II
The second course in a seminar series on professional development, clinical correlation, student presentations, current issues and other miscellaneous topics in sonography. Case study presentations will be an integral part of this course. Guest speakers may be utilized on an occasional basis to enhance the presentations. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35AMIT405 Sonography Seminar III
The third course in a seminar series on professional development, clinical correlation, student presentations, current issues, and other miscellaneous topics in sonography. Case study presentations will be an integral part of this course. Guest speakers may be utilized on an occasional basis to enhance the presentations. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35AMIT411 Gynecological Sonography
The study and the uses of transabdominal and transvaginal medical sonography and its application in the diagnosis of diseases of the female pelvis. The sono graphic appearance of the female reproductive organs, surrounding anatomy, and gynecological pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT412 Obstetrical Sonography I
An extensive study of the anatomy, physiology, pathology, and sonographic appearance of the developing fetus. Clinical presentation and maternal complications associated with pregnancy are also covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT413 Obstetrical Sonography II
An extensive study of the anatomy, physiology, pathology, and sonographic appearance of the developing fetus. Clinical presentation and maternal complications associated with pregnancy are also covered. This course will also thoroughly discuss malformations and congenital anomalies. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35AMIT421 Abdominal Sonography I
The study and uses of diagnostic medical sonography and its application in the diagnosis of diseases of the abdomen. General principles of medical sonography scanning procedures and ultrasonic characteristics of the various abdominal organs and pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT422 Abdominal Sonography II
This course is a continuation of Abdominal Sonography I and continues the study and uses of diagnostic medical sonography and its application in the diagnosis of diseases of the abdomen. General principles of medical sonography scanning procedures and ultrasound characteristics of the various abdominal organs and pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT423 Abdominal Sonography III
The study and uses of diagnostic medical sonography and its application in the diagnosis of diseases of the abdomen and small parts. General principles of medical sonography scanning procedures and ultrasonic characteristics of the various abdominal organs, small parts (breast, thyroid, scrotum, etc.), and pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35AMIT431 Sonographic Physics and Instrumentation I
The first course in sonographic principles covering basic principles of medical sonography. The basics of the ultrasound system instruments and controls, basic mathematical concepts, Doppler, and the basics of sound waves will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35AMIT432 Sonography Physics and Instrumentation II
The second course in sonographic principles covering basic principles of medical sonography. Acoustic variables, the interaction of sound with tissue, transducers, and instrumentation of machine controls will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT433 Sonographic Physics and Instrumentation III
The final course in sonographic principles covering basic principles of medical sonography. Pulsed echo instrumentation, displays and storage of images, Doppler, hemodynamics, artifacts, and quality assurance of ultrasound will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35AMIT441 Magnetic Resonance Imaging Directed Practice I
This is the first in a sequence of four classes that will stress practical laboratory experience, seminars, and case studies in magnetic resonance imaging technology. Students are provided the specialized instruction and experience to accomplish procedures normally performed in magnetic resonance imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine magnetic resonance imaging procedures. BoK: NS. Credit Level: U. Credit Hrs: 2.00

35AMIT442 MAGNETIC RESONANCE IMAGING DIRECTED PRACTICE II
This is the second in a sequence of four courses that will stress practical labaratory experience, seminars, and case studies in magnetic resonance imaging. Students are provided the specialized instruction...
Advanced Medical Imaging Technology

35AMIT442
MAGNETIC RESONANCE IMAGING DIRECTED PRACTICE II
and experience to accomplish procedures normally performed in MRI facilities. BoK: NS. Credit Level: U. Credit Hrs: 5.00

35AMIT443
Magnetic Resonance Directed Practice III
This is the third in a sequence of four courses that will stress practical laboratory experience, seminars, and case studies in magnetic resonance imaging. Students are provided the specialized instruction and experience to accomplish procedures normally performed in MRI facilities. Prereq: 35AMIT442. BoK: NS, SE. Credit Level: U. Credit Hrs: 6.00

35AMIT444
Magnetic Resonance Technical Evaluation
Clinical training associated with learning the practice of magnetic resonance imaging. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT446
Sonographic Directed Practice I
The study and the uses of transabdominal and transvaginal medical sonography and its application in the diagnosis of diseases of the female pelvis. The sonographic appearance of the female reproductive organs, surrounding anatomy, and gynecological pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35AMIT447
Sonographic Directed Practice II
The study and the uses of transabdominal and transvaginal medical sonography and its application in the diagnosis of diseases of the female pelvis. The sonographic appearance of the female reproductive organs, surrounding anatomy, and gynecological pathology will be covered. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35AMIT448
Sonographic Directed Practice III
This is the third in a sequence of four classes that will stress practical laboratory experience, seminars, and case studies in sonography. Students are provided the specialized instruction and experience to accomplish procedures normally performed in sonography facilities. Prereq: 35AMIT442. BoK: NS, SE. Credit Level: U. Credit Hrs: 6.00

35AMIT449
Sonographic Directed Practice IV
This is a final in a series of clinical experiences for sonography students. Students will apply learned techniques in the clinical setting under close supervision of clinical instructors at the designated clinical sites. BoK: NA. Credit Level: U. Credit Hrs: 6.00

35AMIT451
Medical Imagine Physics & Instrumentation
Explores the physics & instrumentation that underpins magnetic resonance scanning. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT452
Magnetic Resonance Physics & Instrumentation II
Discussion on MRI scanning principles, manipulation of MRI instrumentation, causes of image contrast and noise, principles of RF pulses, rapid scan techniques, fat and water signal separation methods, safety issues, and spectroscopy techniques. Prereq: 35AMIT451. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT453
Magnetic Resonance Imaging Physics & Instrumentation III
Physics that underpin the operation of the Magnet Taiwan Resonance Imaging scanner. Prereq: 35AMIT452. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT457
Sonography Physics and Instrumentation II
This course deals with the fundamental principles of sonographic physics. Topics such as the nature of waves, wave properties, interactions of ultrasound with tissue, Ultrasonic beam parameters and

Advanced Medical Imaging Technology

35AMIT457
Sonography Physics and Instrumentation II
basic Doppler principles are covered. Prereq: 35AMIT431. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT458
Sonography Physics and Instrumentation III
This course deals with the fundamental principles of sonographic physics. Topics such as the nature of waves, wave properties, interactions of ultrasound with tissue, ultrasonic beam parameters and basic Doppler principles are covered. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT461
Basic Elements of Magnetic Resonance Imaging Technology
An introductory course that presents basic concepts of the healthcare system and an introduction to magnetic resonance imaging procedures, applied magnetic resonance safety, anatomy, and magnetic resonance imaging systems. Course involves didactic and laboratory experiences. BoK: NS, QR. Credit Level: U. Credit Hrs: 6.00

35AMIT462
Medical Imaging Anatomy, Physiology, & Pathology I
Human anatomy & pathology as it appears on MRI images. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

35AMIT463
Magnetic Resonance Anatomy, Physiology & Pathology II
Anatomy, Physiology and Pathology as it relates to MRI identification. Prereq: 35AMIT462. BoK: NS, SE. Credit Level: U. Credit Hrs: 4.00

35AMIT464
Magnetic Resonance Anatomy Physiology & Pathology III
Anatomy, physiology & pathology in MRI. Joints & extremities of the human body with associated pathologic conditions. Prereq: 35NMT463. BoK: NS, SE. Credit Level: U. Credit Hrs: 4.00

35AMIT466
Basic Elements of Sonography
An introductory course that presents basic concept of the healthcare system and an introduction to sonography procedures, anatomy and physiology relevant to sonography and sonography safety concerns. BoK: NA. Credit Level: U. Credit Hrs: 6.00

35AMIT468
Sonography Anatomy, Physiology, and Pathology II
This course will familiarize the student with anatomical and physiological irregularities and common pathologies found in sonography imaging. The course sequence will be inclusive of all commonly imaged body systems and areas. Case studies and images of the pathologies will use Prereq: 35AMIT402. BoK: NS, SE. Credit Level: U. Credit Hrs: 4.00

35AMIT469
Sonography Anatomy Physiology & Pathology III
This course will familiarize the student with anatomical and physiological irregularities and common pathologies found in sonography imaging. The course sequence will be inclusive of all commonly imaged body systems and areas. Case studies and images of the pathologies will be used to reinforce the lectures. BoK: NS, SE. Credit Level: U. Credit Hrs: 4.00

35AMIT471
Nuclear Medicine Technology Directed Practice I
This is the first sequence of four classes that will stress practical laboratory experience, seminars, and case studies in nuclear medicine technology. Students are provided the specialized instruction and experience to accomplish procedures normally performed in nuclear medicine imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine nuclear medicine procedures. BoK: NS. Credit Level: U. Credit Hrs: 2.00

H=University Honors course.
35AMIT472 Nuclear Medicine Technology Directed Practice II
This is the second in a sequence of four classes that will stress practical laboratory experience, seminars, and case studies in nuclear medicine technology. Students are provided the specialized instruction and experience to accomplish procedures normally performed in nuclear medicine imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine nuclear medicine procedures. Prerequisite: 35AMIT471. BoK: NA, SE. Credit Level: U. Credit Hrs: 5.00

35AMIT473 Nuclear Medicine Technology Directed Practice III
This is the third in a sequence of four classes that will stress practical laboratory experience, seminars, and case studies in nuclear medicine technology. Students are provided the specialized instruction and experience to accomplish procedures normally performed in nuclear medicine imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine nuclear medicine procedures. Prerequisite: 35AMIT472. BoK: NS, SE, Credit Level: U. Credit Hrs: 6.00

35AMIT474 Technical Evaluation of Nuclear Medicine Procedures
This course stresses practical laboratory experience and case study presentation in nuclear medicine technology. Students are provided the specialized instruction and experience to accomplish procedures normally performed in nuclear medicine imaging facilities. Students are expected to demonstrate the skill, knowledge, and experience to proficiently perform routine nuclear medicine procedures and to present the results of their performance to supervising technologists, residents, and staff physicians. Prerequisite: 35NMT471, 35NMT472, 35NMT473. BoK: NS, SE, Credit Level: U. Credit Hrs: 6.00

35AMIT481 Nuclear Medicine Physics & Instrumentation
This course will cover the fundamental principles of physics, mathematics, and instrumentation as applied to nuclear medicine. Topics include principles of radiation detection, radiation measuring instruments, atomic and nuclear structure, radioactive decay, interaction of radiation with matter, and the detection and registering of radiation events. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT482 Nuclear Medicine Physics & Instrumentation II
This course will cover the fundamental principles of physics, mathematics, and instrumentation as applied to nuclear medicine. Topics include principles of radiation detection, radiation measuring instruments, atomic and nuclear structure, radioactive decay, interaction of radiation with matter, and the detection and registering of radiation events. Prerequisite: 35AMIT481. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT483 Nuclear Medicine Physics and Instrumentation
This course will cover the fundamental principles of physics, mathematics, and instrumentation as applied to nuclear medicine. Topics include principles of radiation detection, radiation measuring instruments, atomic and nuclear structure, radioactive decay, interaction of radiation with matter, and the detection and registering of radiation events. Prerequisite: 35NMT482. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

35AMIT490 Sonography Technical Assessment and Review
Students will demonstrate technical proficiency in performing abdomen, small parts, obstetrical, and gynecological procedures. Students will complete and pass comprehensive examinations in these areas as well as in Sonography physics and instrumentation. Strategies for passing nationally administered board examinations will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 5.00
Advanced Medical Imaging Technology

35AMIT501
Advanced Medical Imaging Practicum
This course is designed to incorporate service learning with the required AMIT curriculum. In this course, students will travel to a poverty ridden area and perform studies for patients who otherwise have no access to health care. BoK: NS., DC. Credit Level: U. Credit Hrs: 2.00

35AMIT588
Radiobiology and Radiation Protection
Safe handling of radioactive materials, units of radiation, exposure and dose, dose calculations, radiation protection guides, radiation protection instrumentation BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

Blood Transfusion Medicine

35BTM801
Foundations for Blood Transfusion Medicine I
Instruction on pretransfusion testing, serological methods, immunohematology, cellular therapies, transplantation immunology, blood groups, donor selection, infectious disease testing, blood component blood administration, apheresis, hazards of transfusion, clinical indications for blood trans. Credit Level: G. Credit Hrs: 3.00

35BTM802
Foundations for Blood Transfusion Medicine II
Instruction on pretransfusion testing, serological methods, immunohematology, cellular therapies, transplantation immunology, blood groups, blood collection, infectious disease testing, blood component manufacturing and storage, blood administrations apheresis, hazards and clinical indications of transfusion. Credit Level: G. Credit Hrs: 3.00

35BTM803
Foundations for Blood Transfusion Medicine III
Instruction on pretransfusion testing, serological methods, immunohematology, cellular therapies, transplantation immunology, blood groups, donor selection, infectious disease testing, blood component storage, administrations, apheresis, hazards of transfusions, clinical indications for blood transfusion. Credit Level: G. Credit Hrs: 3.00

35BTM804
Transfusion Medicine Seminar I
Literature review, written paper and oral presentation of blood transfusion medicine topic. Credit Level: G. Credit Hrs: 2.00

35BTM805
Transfusion Medicine Seminar II
literature review, written paper and oral presentation of blood transfusion medicine topic. Credit Level: G. Credit Hrs: 2.00

35BTM806
Transfusion Medicine Seminar III
Literature review, written paper and oral presentation of blood transfusion medicine topic. Credit Level: G. Credit Hrs: 2.00

35BTM811
Laboratory/Clinical Practicum I
Practical training in the laboratories, donor collection services, blood manufacturing, product management, supervision, administration, education and quality assurance. Credit Level: G. Credit Hrs: 4.00

35BTM812
Laboratory/Clinical Practicum II
Practical training in the laboratories, donor collection services, blood manufacturing, product management, supervision, administration, education and quality assurance. Credit Level: G. Credit Hrs: 4.00

35BTM813
Laboratory/Clinical Practicum III
Practical training in the laboratories, donor collection services, blood manufacturing, product management, supervision, administration, education and quality assurance. Credit Level: G. Credit Hrs: 4.00

Blood Transfusion Medicine

35BTM814
Laboratory/Clinical Practicum IV
Practical training in the laboratories, donor collection services, blood manufacturing, product management, supervision, administration, education and quality assurance. Credit Level: G. Credit Hrs: 4.00

35BTM821
Masters Thesis Research I
Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Investigative research in laboratory or clinical setting. Credit Level: G. Credit Hrs: 6.00-12.00

35BTM822
Masters Thesis Research II
Investigative research in a laboratory or clinical setting. Preparation of written thesis. Perm of Instructor. Credit Level: G. Credit Hrs: 6.00-12.00

35BTM831
Research Project
Introduction to research to include literature review, research plan, laboratory investigation data collection and statistical analysis. Credit Level: G. Credit Hrs: 3.00

35BTM841
Teaching Practicum in Transfusion Medicine
Curriculum development, preparation of laboratory specimens, preparation and presentation of didactic lectures, and test construction. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

35BTM851
Scientific Writing and Presentation
Research findings summarized and submitted for regional or national presentation. Submission of research findings to peer review journal. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

35BTM901
Human Blood Groups
Introduction to donor selection and blood collection; blood component manufacturing and storage; pretransfusion testing and blood administration; apheresis and transplantation; hazards of blood transfusion and disease transmission. Problem cases and research. Credit Level: G. Credit Hrs: 6.00

35BTM902
Human Blood Groups
See 35BTM901. Credit Level: G. Credit Hrs: 6.00

35BTM903
Human Blood Groups
See 35BTM901. Credit Level: G. Credit Hrs: 6.00

35BTM904
Immunohematology
Biochemistry, genetics, immunology and serology of blood group antigens and antibodies. Literature review, written paper, oral presentation. Credit Level: G. Credit Hrs: 6.00

35BTM905
Immunohematology
See 35BTM904. Credit Level: G. Credit Hrs: 6.00

35BTM906
Immunohematology
See 35BTM904. Credit Level: G. Credit Hrs: 6.00

H=University Honors course.
Blood Transfusion Medicine

35BTM907
Seminar -- Blood Group Serology
Introduction to research to include literature review, research plan, data collection techniques, and statistical analysis. Credit Level: G. Credit Hrs: 2.00

35BTM908
Seminar -- Blood Group Serology
See 35BTM907. Credit Level: G. Credit Hrs: 2.00

35BTM909
Seminar -- Blood Group Serology
See 35BTM907. Credit Level: G. Credit Hrs: 2.00

35BTM911
Laboratory I
Practical training relating to courses 901,2,3 and 904,5,6. Credit Level: G. Credit Hrs: 3.00

35BTM912
Laboratory II
See 35BTM911. Credit Level: G. Credit Hrs: 3.00

35BTM913
Laboratory III
See 35BTM911. Credit Level: G. Credit Hrs: 3.00

35BTM921
Thesis Laboratory I
Investigative research in partial fulfillment of requirements for the Master of Science degree. Credit Level: G. Credit Hrs: 6.00

35BTM922
Thesis Laboratory II
See 35BTM921. Credit Level: G. Credit Hrs: 6.00

35BTM923
Thesis Laboratory III
See 35BTM921. Credit Level: G. Credit Hrs: 6.00

35BTM961
Research I
Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Credit Level: G. Credit Hrs: 3.00

35BTM962
Research II
Preliminary presentation of investigative research findings. Credit Level: G. Credit Hrs: 3.00

35BTM963
Research III
See 35BTM962. Credit Level: G. Credit Hrs: 3.00

35BTM972
Advances in Immunohematology
Introduction to research to include literature review, research plan, data collection techniques, and statistical analysis. Credit Level: G. Credit Hrs: 2.00

35BTM973
Advances in Immunohematology
Research findings summarized and submitted for regional or national presentation. Submission of research findings to peer review journal. Credit Level: G. Credit Hrs: 2.00

35BTM974
Advances in Immunohematology
See 35BTM973. Credit Level: G. Credit Hrs: 2.00

Blood Transfusion Medicine

35BTM975
Advanced Techniques in Immunohematology
Advanced laboratory and didactic instruction in serological methods and pretransfusion testing. Case studies. Credit Level: G. Credit Hrs: 2.00

35BTM976
Advanced Techniques in Immunohematology
See 35BTM975. Credit Level: G. Credit Hrs: 2.00

35BTM981
Thesis Dissertation Research
Final presentation and defense of thesis research. Credit Level: G. Credit Hrs: 3.00

Clinical Laboratory Science

35CLSC201
Survey of Clinical Lab
An overview of routine clinical laboratory tests as they relate to human health and disease. Included are discussions describing the major areas of the laboratory, followed by demonstrations and hands-on experience in the student laboratory. Open to non-Medical Technology majors. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35CLSC301
Introduction To Forensic Science
This course is a survey in the medical laboratory aspects of forensic science. Each week a different discipline will be presented, with the focus on scientific techniques which constitute a crime solving tool. Experts will be used to impart under standing of the wide scope of Forensic Science. BoK: NS. Credit Level: U. Credit Hrs: 2.00

35CLSC305
Introduction to Biomedical Laboratory Science
Introductory course in Biomedical Laboratory Science covering general topics related to the biomedical research laboratory. Emphasis will be placed upon the role of a research laboratory associate in a research setting. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC340
Principles of Clinical Laboratory Practice
This course will provide the students with an introduction to the practice of clinical laboratory science. Topics include professionalism, professional ethics, laboratory organization and safety. Students will learn and perform fundamental laboratory techniques. Students will be introduced to the various departments of the clinical laboratory and will learn the use of basic laboratory equipment. BoK: NA. Credit Level: U. Credit Hrs: 10.00

35CLSC350
Special Topics in CLS
An objective look at the field of Clinical Laboratory Medicine from its inception, and leading up to current and future technologies with an emphasis on specialized and advanced technologies and the issues surrounding those. Topics will include microscopy, staining technologies, forensic medicine, gene therapy, and cytogenetics. BoK: HP., NS. Credit Level: U. Credit Hrs: 3.00

35CLSC351
Laboratory Operations: Management, QA/QC, and Continuing Education
A study of the basic principles of clinical laboratory management, including theory and practice. Topics will include personnel and financial management, regulation and accreditation, information management, quality assurance and quality control, and continuing education. BoK: QR., DC. Credit Level: U. Credit Hrs: 4.00

35CLSC352
Introductory Medical Biochemistry
The basic principles of the structure and function of organic compounds in the human system including amino acids, enzymes, lipids, carbohydrates, and nucleic acids. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
Clinical Laboratory Science

35CLSC353
Clinical Chemistry and Body Fluids
A study of serum and fluid chemistry in normal and pathological states. Topics will include the basic principles of the structure and function of organic compounds in the human system. Discussions emphasize the relationship between normal and abnormal laboratory results and organ system function. The study of body fluids is included, as well as a review of urinalysis and renal function. BoK: NS., QR. Credit Level: U. Credit Hrs: 10.00

35CLSC354
Statistics and Research in Clinical Laboratory Science
The statistics units will focus on the statistical principles that are pertinent to health care, and to the clinical laboratory. The research and methods units will focus on current research topics in laboratory medicine, and the development and verification of laboratory protocols. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35CLSC355
Ecology and Environmental Toxicology
The basic principles of ecology including ecosystem structure and function, and conservation biology. The environmental toxicology units will focus on the nature and the detection of toxic substances in the environment and their effects on humans. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC356
Clinical Hematology and Hemostasis
An advanced study of blood and blood cells in normal and pathological states. Discussions on normal and abnormal hematopoiesis are included. The hemostasis unit is a comprehensive study of the blood clotting system in normal and pathological states. Included are discussions regarding the correlation of the test results with disease states and therapies. BoK: NS., QR. Credit Level: U. Credit Hrs: 10.00

35CLSC357
Clinical Microbiology
Advanced study of microorganisms associated with human infectious processes. Discussions include the characteristics, isolation, identification, antimicrobial techniques, and clinical infections associated with pathogenic bacteria. BoK: NS. Credit Level: U. Credit Hrs: 10.00

35CLSC358
Clinical Immunohematology
A study of the theory, principles and procedures associated with transfusion medicine. Discussions cover routine and specialized procedures, blood donors, components, regulations, and quality assurance. BoK: NA. Credit Level: U. Credit Hrs: 10.00

35CLSC359
Human Genetics and Molecular Diagnostic Techniques
Overview of nucleic acid structure, gene expression and genetic disease. Principle of DNA and RNA isolation, cloning, amplification, hybridization, sequencing and analysis. Applications in microbiology, hematology and oncology, thrombosis risk testing, genetics disease, anthropology and forensic medicine. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35CLSC360
Clinical Mycology and Virology
The study of clinically relevant fungi and viruses and the laboratory diagnosis of the organisms involved. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35CLSC361
Advanced Clinical Practice I
A clinical practicum experience that will focus on advanced, applied clinical laboratory techniques and concepts. The practicum experience will be individually designed for each student. The student will participate in choosing the the practicum site. BoK: NS., QR. Credit Level: U. Credit Hrs: 1.00-10.00

Clinical Laboratory Science

35CLSC362
Clinical Parasitology
The study of clinically relevant parasites and the laboratory diagnosis of the organisms involved. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC363
Advanced Clinical Applications
The second of two clinical practicum courses. This course will focus on the project based study of advanced, applied clinical laboratory techniques and concepts BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC364
Clinical Laboratory Science Distance Learning Seminar
This seminar course will focus on building critical thinking and problem solving skills during clinical case study discussions. The course will include a comprehensive review of the major clinical laboratory science disciplines. Students will take a comprehensive examination at the end of the course. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

35CLSC365
Clinical Laboratory Science Distance Learning Capstone
A course in which students participate in a series of seminars culminating in the development and presentation of a fundamental research project involving an aspect of state-of-the-art clinical laboratory science practice. Under the direction of faculty, students prepare a written report and publicly present their findings. BoK: QR., SE. Credit Level: U. Credit Hrs: 3.00

35CLSC366
Immunology
This course is a focused study of clinical immunology concentrating on immune system functions, the response of the immune system to infection and disease, and current diagnostic methodologies and molecular applications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC400
Introduction to Clinical Laboratory Science
Introduction and orientation to the field of Clinical Laboratory Science. Includes discussions on professionalism, basic laboratory concepts and techniques, and phlebotomy. Microscopy and phlebotomy techniques are practiced in the student laboratory. BoK: NS., HP. Credit Level: U. Credit Hrs: 3.00

35CLSC401
Basic Lab Skills
Introduction and orientation to the field of Medical Technology. Includes discussions on professionalism, basic laboratory concepts and techniques, and phlebotomy. Microscopy and phlebotomy techniques are practiced in the student laboratory. BoK: NS., SS. Credit Level: U. Credit Hrs: 4.00

35CLSC402
Clinical Hematology I
The study of blood and blood cells in a normal state. Discussions on normal and abnormal hematopoiesis are included. Routine hematology procedures are performed in the student laboratory, with an emphasis on the microscopic evaluation of normal blood cell morphology and evaluation of complete blood count data. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35CLSC403
Coagulation
A comprehensive study of the blood clotting system in normal and pathological states. Included are discussions regarding the correlation of test results with disease states and therapies. Semi-automated and manual techniques are performed in student laboratory exercises. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC404
Clinical Immunology
A study of the structure and function of the immune system in health and disease as pertinent to the clinical laboratory. Includes discussions on autoimmune diseases, immuno-deficiency, and immunodiagnostic techniques. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Clinical Laboratory Science

35CLSC404
Clinical Immunology
A study of the structure and function of the immune system in health and disease as pertinent to the clinical laboratory. Includes discussions on autoimmune diseases, immuno-deficiency, and immunodiagnostic techniques. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC405
Immunohematology
A study of the theory, principles, and procedures associated with transfusion medicine. Discussions and laboratory exercises cover routine and specialized procedures, blood donors, components, regulations, and quality assurance. BoK: NS., QR. Credit Level: U. Credit Hrs: 6.00

35CLSC406
Urinalysis and Body Fluids
A study of urinalysis procedures, renal function, and body fluid examination. Manual and semi-automated laboratory procedures are performed in the student laboratory. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC407
Computer Applications
Overview of computer applications relevant to laboratory work. Discussions of Laboratory Information Systems are included. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35CLSC408
Issues in Medical Technology
Discussions of current and timely issues affecting the Medical Technology professional. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC409
Clinical Virology
Introduction to the study of clinical virology. Laboratory exercises and demonstrations illustrate culture and serologic techniques. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC410
Clinical Chemistry
A study of serum and fluid chemistry in the normal and pathological states. Discussions emphasize the relationship between normal and abnormal laboratory results and organ system function. Manual and automated procedures are performed in the student laboratory. BoK: NS., QR. Credit Level: U. Credit Hrs: 7.00

35CLSC411
Clinical Parasitology
The study of human parasitic diseases and the organisms involved. Lectures and laboratory exercises emphasize the detection and identification of diagnostic forms. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC412
Clinical Mycology
The study of clinically relevant fungi, with emphasis on diagnostic forms. Isolation and culture techniques are practiced in the laboratory. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC413
Survey of Management
A study of the basic principles of management theory and practice. Current clinical issues including daily operation, regulations, and accreditation are discussed. Basic educational theory and concepts are discussed in the education component. BoK: QR. Credit Level: U. Credit Hrs: 3.00

35CLSC414
Clinical Microbiology
A study of the microorganisms associated with human infectious processes. Discussion include the characteristics, isolation, identification, and antimicrobial techniques associated with pathogenic bacteria. Manual techniques used in diagnostic microbiology are

Clinical Laboratory Science

35CLSC414
Clinical Microbiology
practiced in the student laboratory. BoK: NS., QR. Credit Level: U. Credit Hrs: 8.00

35CLSC416
Clinical Toxicology
A study of the principles and techniques of toxicology relating to therapeutic drug monitoring, overdose, poisoning, and unknown substance analysis. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35CLSC417
Senior Seminar
A capstone experience including assessment of laboratory knowledge through guided & independent review and other activities related to certificate Additional research experience is provided through senior research projects that lead to poster presentations in the college PRaise Conference. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35CLSC418
Clinical Laboratory Science Elective
Opportunity for students to gain practical experience in a specialized clinical or research laboratory. Students participate in site selection for this experience. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35CLSC422
Clinical Experience III
Supervised clinical hospital laboratory experience in Chemistry, Urinalysis and Body Fluids. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

35CLSC423
Clinical Experience IV
Supervised clinical hospital laboratory experience in Immunohematology. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC424
Diagnostic Molecular Techniques
Introduction to molecular biology techniques and their application to laboratory diagnosis of disease. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

35CLSC425
Independent Study in Medical Technology
A course designed to allow students to pursue an individualized learning project with approval of an advisor and the supervision of a faculty member. BoK: NS., QR. Credit Level: U. Credit Hrs: 1.00-8.00

35CLSC430
Clinical Practicum I
This is the first of two courses that will stress practical laboratory experience, professional and performance and mastery of skills in Clinical Laboratory Sciences. Students are provided the specialized instruction and experience needed to accomplish procedures normally performed in a hospital laboratory. BoK: DC., SE. Credit Level: U. Credit Hrs: 6.00

35CLSC431
Clinical Practicum II
This is the second in a series of two courses that will stress practical laboratory experience, professional performance and case studies in Clinical Laboratory Sciences. Students are provided specialized instruction and experience to accomplish procedures normally performed in a Hosp/Diag. Lab. BoK: NA. Credit Level: U. Credit Hrs: 8.00

35CLSC432
Clinical Hematology II
The study of the blood and blood cells in an abnormal or malignant state. Discussions on Red Blood Cells and White Blood Cell Disorders are included. Specialized hematology procedures are performed in the student laboratory, with an emphasis on the microscopic evaluation of abnormal blood cell morphology, evaluation of complete blood count data along with cytochemical and molecular testing. BoK: NA. Credit
Clinical Laboratory Science

35CLSC432  
Clinical Hematology II  
Level: U. Credit Hrs: 4.00

35CLSC433  
Senior Seminar  
This course is designed to give senior students an introduction to scientific research. The purpose of this course is to provide students time to conduct research projects and present them at the PRAISE conference. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC434  
Senior Seminar II  
The course will serve to bring together all concepts covered throughout the clinical year via case studies and structured review. Its purpose is to prepare graduating CLS students for the final comprehensive exam and the national certifying exam. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CLSC435  
Clinical Microbiology I  
The study of microorganisms associated with human infections process. Discussions include the characteristics, isolation, identification and antimicrobials associated with pathogenic organisms. Techniques are practiced in the teaching laboratory BoK: NS., QR. Credit Level: U. Credit Hrs: 5.00

35CLSC436  
Clinical Microbiology II  
This course covers advanced topics in microbiology including antibiotics and antimicrobial susceptibility testing, mycobacteriology, anaerobic bacteriology, virology, and clinical aspects of micro-biology. The lecture and laboratory portions of the course train students to be well-prepared BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CLSC440  
Clinical Laboratory Science Capstone  
A course in which students participate in a series of seminars culminating in the development and presentation of a fundamental research project involving an aspect of state-of-the-art clinical laboratory science practice. Under direction of faculty, students prepare a written report and publically present their findings. BoK: QR., SE. Credit Level: U. Credit Hrs: 3.00

35CLSC500  
Independent Studies in Clinical Laboratory Sciences  
Independent study in area if focus based upon the student's interest or need. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

35CLSC501  
Independent Studies in Clinical Laboratory Sciences  
Independent study in area if focus based upon the student's interest or need. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

35CLSC502  
Independent Studies in Clinical Laboratory Sciences  
Independent study in area if focus based upon the student's interest or need. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

Communication Sciences and Disorders

35CSD171  
Communication Disorders in the Media and Literature  
An exploration of various communication disorders and how they are portrayed by the media and in literature. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35CSD212  
Survey of Communication Disorders  
A survey of the field of communication disorders: descriptions of speech, language and voice disorders. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

College of Allied Health Sciences

Communication Sciences and Disorders

35CSD309  
Anatomy and Physiology of Speech and Vocal Mechanisms for Speech-Language Pathology  
This course is an introduction to the anatomy and physiology of the speech/language mechanizations. The course will include learning unit on the anatomical systems of respiration, phonation, articulation and swallowing. We will also include an introduction to brain anatomy as it pertains to systems of speech, language and swallowing mechanisms. None of these human systems exist in isolation. We will learn how the systems interact to produce speech and language. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35CSD310  
Anatomy & Physiology of Voice and Speech Production  
Anatomy and physiology of the systems of respiration, phonation, articulation, and neurology for voice, speech and swallowing. Prereq: 35CSD171, 35CSD212. Prereq: 35CSD171, 35CSD212. BoK: NS. Credit Level: U. Credit Hrs: 4.00

35CSD311  
Speech and Language Development  

35CSD371  
Phonetics  

35CSD372  
Syntax for Language Assessment  
This course provides prospective SLP students with the basics of syntax that they can apply to language samples analysis and intervention. Prereq: 35CSD171, 35CSD212. Prereq: 35CSD171, 35CSD212. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35CSD512  
Neurological Foundations of Communication  

35CSD520  
Speech Science  

35CSD521  
Clinical Process I: Professional Issues  
Professional issues in speech-language pathology and audiology including observation of children and adults with communication disorders. Prereqs: 35CSD171, 35CSD212, 35CSD310, 35CSD311, 35CSD371 or permission of instructor. Prereq: 35CSD212, 35CSD311, 35CSD371, 35CSD372, 35CSD310. BoK: NA. Credit Level: U. G. Credit Hrs: 1.00-3.00

35CSD522  
Clinical Process II: Assessment  

35CSD523  
Clinical Process III: Intervention  

H=University Honors course.
Communication Sciences and Disorders

35CSD23
Clinical Process III: Intervention
Hrs: 3.00

35CSD24
Clinical Processes in CSD
Overview of professional issues and clinical processes used in assessment and intervention for speech-language disorders. Prereqs: 35CSD308, 35CSD371, Prereq: 35CSD395. Credit Hrs: 3.00

35CSD59
Anatomy of the Auditory and Vestibular Systems
Brief review of techniques for describing sound; study of the anatomy and physiology of the peripheral auditory and vestibular system; brief reference to central auditory nervous system; study of common diseases or pathologies of the auditory and vestibular system that effect children and adults. BoK: NA. Credit Level: U, G. Credit Hrs: 5.00

35CSD560
Basic Audiological Assessment
In depth introduction to basic audiological assessment techniques for both pediatric and adult populations. Specific emphasis on skills necessary to complete basic pure tone testing; interpretation of basic pure tone, speech, and immittance tests; and development of hearing screening program. Overview of more advanced audiological test procedures. Prereq: 35CSD59. Credit Hrs: 3.00

35CSD561
Audiology I
Anatomy, physiology, and pathology of the auditory systems; psychophysical procedures. Prereqs: 35CSD212, 35CSD310, Prereq: 35CSD308, 35CSD371. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

35CSD562
Audiology II

35CSD563
Audiology III

35CSD568H
Hearing and Sound Production Through the Ages: Jurassic Acoustics
This course is designed to familiarize students with the bioacoustics of human and animal communication and hearing including comparative terrestrial/marine mammal vocal anatomy, physiology and neuroanatomy, sound production mechanisms and acoustic behavior. The course documents the evolution of the hearing and vocal systems of humans and their relationship to animals. Prereq: Honor students only. BoK: HP., NS. Credit Level: U, G. Credit Hrs: 3.00

35CSD593
Individual Work in Speech Language & Hearing
Guided study in communication sciences and disorders. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

35CSD594
Honors Work in Speech Language & Hearing
Honors projects in Communication Sciences & Disorders. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

Communication Sciences and Disorders

35CSD595
Capstone Experience
The Capstone Experience will allow the students to demonstrate proficiency in the four Baccalaureate Competencies of the General Education Program as well as in the content of the B.S. Degree in CSD. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

35CSD619
Physical Bases of Audiology
Basic concepts in acoustics, electricity and electronics necessary for audiology. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

35CSD620
Biological Bases of Audiology
Biological foundation for future courses in audit- ory neurosciences, development, pathophysiology and clinical assessment of sensory systems. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35CSD622
Biomechanics of Hearing
Structure and function of the peripheral auditory system. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

35CSD623
Introductory Audiology Practicum I
First year clinical hands-on experience performing basic diagnostic testing and habilitative intervention in the on-campus clinic or at an off-campus site. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

35CSD624
Introductory Audiology Practicum II
First year clinical hands on experience performing basic diagnostic testing and habilitative intervention in the on-campus clinic or at an off-campus site. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

35CSD625
Introductory Audiology Practicum III
First year clinical hands-on experience performing basic diagnostic testing and habilitative intervention in the on-campus clinic or at an off-campus site. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

35CSD626
Audiology Clerkship I
Practicum following the first academic year with placement in the on-campus clinic or an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD650
Autism Spectrum Disorders: Assessment & Intervention
This course will provide information for assessment and development of communication intervention for individuals with Autism Spectrum Disorders. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

35CSD700
Counseling in Communication Disorders
Overview of the personal and family emotional toll and life impact of communication disorders. Examination and role playing will focus on building healthy patient/professional dynamics to facilitate rehabilitation. Credit Level: G. Credit Hrs: 3.00

35CSD702
Special Topics in Communication Disorders
Specialized information about current issues and techniques. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

35CSD706
Diagnostic Audiology I
Assessment of auditory function, emphasis on pure tone, speech and immittance measurements, interpretation of test results. Prereq: 35CSD562. Credit Level: G. Credit Hrs: 4.00

35CSD708
Management of the Hard of Hearing Child
Assessment and management of children with hearing loss in
Communication Sciences and Disorders

3SCD708
Management of the Hard of Hearing Child
Educational settings. Prereq: 3SCD563. Credit Level: G. Credit Hrs: 3.00

3SCD709
Cochlear Implantation: Theory and Practice
Overview of Cochlear Implantation. Cochlear implant technology and function. Patient criteria and determination. Pre and post-implant counseling, testing and mapping/coding strategies. Medical and surgical perspectives in cochlear implantation. Aural habilitation for the CI user. Understanding other professional roles in the CI process. Credit Level: G. Credit Hrs: 3.00

3SCD710
Speech Sound Disorders
Assessment and intervention for speech sound disorders in children. Credit Level: G. Credit Hrs: 3.00-5.00

3SCD711
Language Disorders in Early Childhood
Contemporary strategies for assessment and intervention for preschool and early school age children with language disorders. Prereq: 3SCD710. Credit Level: G. Credit Hrs: 3.00-5.00

3SCD712
Language Disorders in Later Childhood
Contemporary strategies for assessment and intervention for school age children with language disorders. Prereq: 3SCD711. Credit Level: G. Credit Hrs: 3.00-5.00

3SCD716
Pathophysiology of Audition
Overview of the biological bases of auditory dysfunction; anatomical and physiological studies associated with different categories of cochlear insult (eg. ototoxicity, acoustic trauma, presbycusis) and central auditory nervous system (eg. auditory neuropathy). Credit Level: G. Credit Hrs: 3.00

3SCD717
Diseases of the Ear
Survey of pathologies, medical and surgical management of diseases of the auditory system. Credit Level: G. Credit Hrs: 1.00-3.00

3SCD718
Pediatric Audiology: Assessment
Identification and evaluation of infants and children with hearing loss. Credit Level: G. Credit Hrs: 4.00

3SCD719
Amplification Systems I
Introduction to amplification systems for the hearing impaired. Topics: types of aids and their components, electroacoustic characteristics of hearing aids, coupler measurements, output limitation and earmolds. Credit Level: G. Credit Hrs: 1.00-3.00

3SCD720
Amplification Systems II
Selection and fitting of amplification for the hearing impaired. Topics include: hearing aid evaluation, prescription of electroacoustic characteristics, fitting procedures, and post- fitting counseling. Credit Level: G. Credit Hrs: 5.00

3SCD723
Graduate Audiologist I
Second year, first clinical practicum placement in the on-campus clinic or an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

3SCD724
Graduate Audiologist II
Second year, second clinical practicum placement in the on-campus clinic or an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-
Communication Sciences and Disorders

35CSD762
Speech Communication for the Hearing Impaired
Study of speech, voice and informal auditory evaluation procedures for students with impaired hearing. Case study development and reporting emphasized. Credit Level: G. Credit Hrs: 1.00-3.00

35CSD763
Speech Communication for the Hearing Impaired
Principles of assessment and modification of speech in deaf children and adolescents. Credit Level: G. Credit Hrs: 3.00

35CSD773
Reading and Literacy for SLP’s
This course provides in depth information concerning evidence based practice in all aspects of reading and literacy as it pertains to the knowledge needed by SLP’s to provide state of the art services to children. Credit Level: G. Credit Hrs: 3.00

35CSD774
Emergent Literacy for Speech-Language Pathologists
The course provides a connection between theory and practice in emergent literacy for speech-language. Credit Level: G. Credit Hrs: 3.00

35CSD777
Seminar in School Issues
Organization, management and administration of a school speech-language pathology and audiology program. Credit Level: G. Credit Hrs: 3.00

35CSD783
Collaborative Literacy Seminar I: Language and Literacy
Development of an understanding of issues related to language and literacy. Credit Level: G. Credit Hrs: 2.00

35CSD784
Collaborative Literacy Seminar II: Collaboration
A survey of the collaborative process in language and literacy intervention. Credit Level: G. Credit Hrs: 2.00

35CSD785
Collaborative Literacy Seminar III: Curriculum
The implementation of curriculum in language and literacy intervention. Credit Level: G. Credit Hrs: 2.00

35CSD786
Collaborative Literacy Seminar IV: Capstone Project
Synthesis and application of language and literacy modules to Providers, Activities, Contexts model. Credit Level: G. Credit Hrs: 2.00

35CSD811
Voice Disorders
Function and disorders of the larynx; evaluation and management. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD812
Craniofacial Anomalies
Cleft palate and associated orofacial anomalies. Evaluation and management. Credit Level: G. Credit Hrs: 3.00

35CSD813
Seminar in Stuttering
Theories of stuttering; therapeutic approaches. Taught concurrently with intensive therapy program. Credit Level: G. Credit Hrs: 1.00-5.00

35CSD816
Noise and Hearing
Concepts in hearing risk, personnel protection, noise measurement. Credit Level: G. Credit Hrs: 2.00

35CSD818
Audiologic Rehabilitation of the Adult
Discussion and study of the principles and methods of aural rehabilitation of the adult. Credit Level: G. Credit Hrs: 3.00

Communication Sciences and Disorders

35CSD819
Pediatric Audiology: Intervention and Management
Principles of hearing habilitation and hearing management counseling for families and their young children with mild to profound hearing loss. Credit Level: G. Credit Hrs: 5.00

35CSD822
Vestibular Assessment and Rehabilitation
Theory and practice in electrophysiologic assessment of normal and disordered vestibular systems. Credit Level: G. Credit Hrs: 3.00

35CSD823
Internship in Audiology I
Third year, first clinical practicum placement in an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD824
INTERNSHIP IN AUDIOLOGY II
Third year, second clinical practicum placement in an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD825
INTERNSHIP IN AUDIOLOGY III
Third year, third clinical practicum placement in an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD826
Audiology Clerkship III
Practicum following the third academic year with placement in an off-campus site such as a medical setting, school, private practice, or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD827
Vestibular Assessment and Rehabilitation II
Pedagogy and practical training in the advanced assessment of vestibular disorders, including advanced diagnostic procedures that include rotary chair, sway platform posturography, vestibular evoked myogenic potentials, electrocochleography, canalith repositioning. Prereq: 35CSD822. Credit Level: G. Credit Hrs: 3.00

35CSD830
Dysphagia
In depth instruction regarding anatomy and physiology of normal and disordered swallowing, assessment, treatment and research. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD831
Augmentative and Alternative Communication
Selection of communication systems for non- speaking clients and strategies for assessment intervention using augmentative/alternative systems. Prereq.: 18SPED714 Prereq: 18SPED714. Credit Level: G. Credit Hrs: 3.00-5.00

35CSD832
Early Intervention for Children with Communication Disorders
The speech language pathologists role in providing transdisciplinary services to infants and toddlers. Credit Level: G. Credit Hrs: 3.00

35CSD834
Advanced Dysphagia
To provide students with an in-depth understanding of the assessment and treatment of abnormal swallowing in medically complex children and adults. Included will be a review of pathophysiology, etiological correlates, evaluation and management techniques, and current research on swallowing disorders involving complex pulmonary, airway, systemic, or neurogenic disorders. This course assumes a prior knowledge of basic head and neck anatomy, physiology, neuroanatomy, normal and abnormal swallowing, clinical and instrumental assessment and basic treatment planning. Prereq: 35CSD830, 35CSD731, 35CSD310. Credit Level: G. Credit Hrs: 3.00
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>35CSD835</td>
<td>Pediatric Dysphagia</td>
<td>Necessary to effectively evaluate and treat feeding and swallowing disorders in medically complex infants and children in medical, school, and home settings. Normal and abnormal anatomy, changes in swallowing physiology from infancy to childhood, evaluation and management techniques, and pertinent research will be covered in the course. Knowledge of head and neck anatomy and physiology as well as basic neuroanatomy is assumed. This course is available to graduate students, doctoral students, and community speech language pathologists. Prereq: 35CSD830. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35CSD840</td>
<td>Seminar in Auditory Evoked Potentials (AEP)</td>
<td>Basic outcomes and effects of communication disorders on the late auditory evoked potentials and discussion, description of the use of AEP's for both research and applied purposes. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>35CSD841</td>
<td>Practice Management in Communication Disorders</td>
<td>Overview of business principles including planning, financing, operations and marketing. Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>35CSD842</td>
<td>Seminar in AEP II</td>
<td>This course covers the latest information on electrophysiology of the auditory system and the clinical application of auditory evoked potentials. Prereq: 35CSD840. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>35CSD863</td>
<td>Directed Problems in Speech/Language Pathology</td>
<td>Projects are designed and supervised by the faculty. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00</td>
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<tr>
<td>35CSD864</td>
<td>Directed Problems in Audiology</td>
<td>Projects are designed and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>35CSD865</td>
<td>Directed Problems in Speech and Hearing Science</td>
<td>Projects are designed and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>35CSD908</td>
<td>Special Topics in Clinical Practice in Audiology</td>
<td>The interactive clinical seminar designed to cover applications of specific theoretical audiological information to everyday clinical practice Credit Level: G. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>35CSD911</td>
<td>Clinical Practicum in Speech/Language Pathology</td>
<td>Diagnostic, therapeutic participation in speech/language pathology. Credit Level: G. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>35CSD913</td>
<td>Internship in Speech/Language Pathology</td>
<td>Off-campus experience in speech/language pathology. Credit Level: G. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>35CSD914</td>
<td>School Practicum in Audiology</td>
<td>Supervised experience in educational audiology in a school setting. Credit Level: G. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>35CSD915</td>
<td>School Practicum in Speech-Language Pathology</td>
<td>Supervised experience in providing speech-language services to children in a school setting. Credit Level: G. Credit Hrs: 1.00-15.00</td>
</tr>
</tbody>
</table>

**Communication Sciences and Disorders**

**35CSD916**

Advanced Clinical Methods in Communication Science

This course is directed toward graduate students in speech/language pathology who have had experience in practicum with persons with communication disorders. Students will review assessment and intervention processes to prepare their portfolios. Credit Level: G. Credit Hrs: 3.00

**35CSD920**

Clinical Externship in Speech-Language Path I

Full or part-time clinical practicum experience at an off-campus site such as a medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

**35CSD921**

Clinical Externship in Speech-Language Path III

Full or part-time clinical practicum experience at an off-campus site such as a medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

**35CSD923**

Clinical Externship in Audiology I

Full-time clinical practicum experience at an off-campus site such as a medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

**35CSD924**

Clinical Externship in Audiology II

Full-time clinical practicum experience at an off-campus site such as a medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

**35CSD925**

Clinical Externship in Audiology III

Full-time clinical practicum experience at an off-campus site such as a medical setting, school, private practice or non-profit organization. Credit Level: G. Credit Hrs: 1.00-15.00

**35CSD940**

Graduate Seminar in Speech Pathology and Audiology

Presentation of graduate student projects, publishable papers, theses or dissertation designs in seminar mode. Credit Level: G. Credit Hrs: 1.00-3.00

**35CSD943**

Graduate Research Project Communication Disorders I

Research project in Communication Disorders I. Completion of research proposal for thesis or publishable paper. Credit Level: G. Credit Hrs: 1.00-3.00

**35CSD944**

Graduate Research Project Communication Disorders II

Research Project in Communication Disorders II. Completion of data collection for thesis or publishable paper. Prereq: 35CSD943. Credit Level: G. Credit Hrs: 1.00-3.00

**35CSD945**

Graduate Research Project Communication Disorders III

Research project in Communication Disorders III. Completion of written document and oral defense of thesis or publishable paper. Prereq: CSD 943, 944. Credit Level: G. Credit Hrs: 1.00-3.00

**35CSD946**

Research Methods in Communication Disorders

Research project and lectures focus on application of design, analysis and short research report. Review MA thesis and published articles. Credit Level: G. Credit Hrs: 3.00

**35CSD983**

Doctoral Seminar Research in Communication Disorders I

Pre-dissertation research evaluation, planning and experience. Credit Level: G. Credit Hrs: 3.00-6.00

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H=University Honors course.
Communication Sciences and Disorders

35CSD984
Doctoral Seminar in Research in Communication Disorders II
Pre-dissertation research evaluation planning and experience. Prereq: 35CSD983. Credit Level: G. Credit Hrs: 3.00-6.00

35CSD985
Doctoral Seminar in Research in Communication Disorders III
Pre-dissertation research evaluation, planning and experience; professional writing emphasized. Prereq: 35CSD984. Credit Level: G. Credit Hrs: 3.00-6.00

35CSD986
Doctoral Seminar in Communication Disorders: Pedagogy
Discussion of issues related to teaching at the college level and guided experience in teaching. Credit Level: G. Credit Hrs: 3.00

35CSD987
Doctoral Seminar in Communication Disorders: Supervision
Discussion of issues related to supervision and guided experience on supervision of student practicum in Communication Disorders. Credit Level: G. Credit Hrs: 3.00

35CSD988
Doctoral Seminar in Communication Disorders: Grant Writing
Review of granting agencies, funding sources, grants and guided experience on grant writing. Credit Level: G. Credit Hrs: 3.00

35CSD989
Topics in Language, Speech and Hearing Disorders
This is a research seminar in which students present, defend and critique recent research articles on Hot Topics in Speech-Language Pathology and Audiology. Topics vary according to student interest. Credit Level: G. Credit Hrs: 1.00

35CSD991
Doctoral Dissertation Research
Degree candidates only. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD992
Doctoral Dissertation Research
Degree candidates only. Credit Level: G. Credit Hrs: 1.00-15.00

35CSD993
Doctoral Dissertation Research
Degree candidates only. Credit Level: G. Credit Hrs: 1.00-15.00

Cellular Therapies

35CT831
Foundations for Cellular Therapies I
Instruction on stem cell biology, stem cell collection and storage, positive and negative selection, genetic manipulation, clinical cell trans -plantation, blood groups, infectious disease test-ing, hazards of transplantations, regulatory issue and quality management. Credit Level: G. Credit Hrs: 2.00

35CT832
Foundations for Cellular Therapies II
Instruction on stem cell biology, stem cell collection and storage, positive and negative selection, genetic manipulation, clinical cell trans-plantation, blood groups, infectious disease test-ing, hazards of transplantations, regulatory issue and quality management. Credit Level: G. Credit Hrs: 2.00

35CT833
Foundations for Cellular Therapies III
Instruction on stem cell biology, stem cell collection and storage, positive and negative selection, genetic manipulation, clinical cell trans-plantation, blood groups, infectious disease test-ing, hazards of transplantations, regulatory issue and quality management. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

35CT834
Cellular Therapies Seminar I
Literature review, written paper and oral presentation of cellular therapies topic. Credit Level: G. Credit Hrs: 2.00

35CT835
Cellular Therapies Seminar II
Literature review, written paper and oral presentation of cellular therapies topic. Credit Level: G. Credit Hrs: 2.00

35CT836
Cellular Therapies Seminar III
Literature review, written paper and oral presentation of cellular therapies topic. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

35CT837
Cellular Therapies Laboratory/Clinical Prac I
This course provides the practical training and experience in cell processing including Plasma reduction, Red cell reduction, Buffy coat preparation, Controlled rate freezing, T cell depletion, CD34 selection and analysis, Donor Lymphocyte infusion, processing of stem cells for cryo-preservation, thawing frozen stem cells for infusion, cell counts using automated and manual equipment, record keeping systems for stem cell products and laboratory management training. Credit Level: G. Credit Hrs: 3.00

35CT838
Cellular Therapies Laboratory/Clinical Prac II
This course provides the practical training and experience in cell processing including Plasma reduction, Red cell reduction, Buffy coat preparation, Controlled rate freezing, T cell depletion, CD34 selection and analysis, Donor Lymphocyte infusion, processing of stem cells for cryo-preservation, thawing frozen stem cells for infusion, cell counts using automated and manual equipment, record keeping systems for stem cell products and laboratory management training. Credit Level: G. Credit Hrs: 3.00

35CT839
Cellular Therapies Laboratory/Clinical Prac III
This course provides the practical training and experience in cell processing including Plasma reduction, Red cell reduction, Buffy coat preparation, Controlled rate freezing, T cell depletion, CD34 selection and analysis, Donor Lymphocyte infusion, processing of stem cells for cryo-preservation, thawing frozen stem cells for infusion, cell counts using automated and manual equipment, record keeping systems for stem cell products and laboratory management training. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

35CT840
Cellular Therapies Thesis Research I
Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Investigative research in a laboratory or clinical setting. Final written thesis. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00-12.00

35CT841
Cellular Therapies Thesis Research II
Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Investigative research in a laboratory or clinical setting. Final written thesis. Credit Level: G. Credit Hrs: 4.00-12.00

35CT842
Cellular Therapies Thesis Research III
Preparation of written research proposal to include a literature review, research plan, materials and methods, data analysis, budget and bibliography. Investigative research in a laboratory or clinical setting. Final written thesis. Credit Level: G. Credit Hrs: 4.00-12.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>35GC600</td>
<td>Topics in Personalized Medicine Online</td>
<td>An asynchronous online only course focused on the science and applications of personalized medicine in health care.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BoK: NA. Credit Level: U. G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC828</td>
<td>Emerging Topics in Clinical Genomics</td>
<td>A series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular &amp; biochemical testing, treatment of genetic conditions and other areas. BoK: SE. Credit Level: G, U. Credit Hrs: 1.00-2.00</td>
</tr>
<tr>
<td>35GC829</td>
<td>Emerging Topics in Clinical Genomics</td>
<td>A series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular &amp; biochemical testing, treatment of genetic conditions and other areas. BoK: SE. Credit Level: G, U. Credit Hrs: 1.00-2.00</td>
</tr>
<tr>
<td>35GC830</td>
<td>Emerging Topics in Clinical Genomics</td>
<td>A series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular &amp; biochemical testing, treatment of genetic conditions and other areas. BoK: SE. Credit Level: G, U. Credit Hrs: 1.00-2.00</td>
</tr>
<tr>
<td>35GC606</td>
<td>Legal and Ethical Issues in Human Genetics</td>
<td>Issues and conflicts in the field of genetics are examined and discussed in the context of a systematic framework, employing principles and concepts of ethics with consideration of legal implications. Credit Level: G. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>35GC700</td>
<td>Providing Culturally Competent Care</td>
<td>Use case studies, journaling &amp; other methods of self-reflection, discourse with instructor and peers through a discussion board, readings taken from lay &amp; professional literature, videos and other electronic instructional materials, and group work. Credit Level: G. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>35GC701</td>
<td>Introduction to Public Health Genomics</td>
<td>An introduction to the role of genomics in public health. This course will explore the growing impact of the genomic revolution in relation to health and disease in populations. Credit Level: G. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>35GC734</td>
<td>Introduction to Genetic Counseling</td>
<td>Practical genetic counseling approaches and methods taught by means of hands-on activities, peer instruction, guest lectures, and role playing. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>35GC735</td>
<td>Introduction to Genetic Counseling</td>
<td>See 35-962-734. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>35GC736</td>
<td>Introduction to Genetic Counseling</td>
<td>See 35-962-734. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>35GC740</td>
<td>Clinical Practicum I</td>
<td>This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC741</td>
<td>Clinical Practicum II</td>
<td>This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC742</td>
<td>Clinical Practicum III</td>
<td>This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC743</td>
<td>Clinical Practicum Summer Internship</td>
<td>This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00-3.00</td>
</tr>
<tr>
<td>35GC750</td>
<td>Genetic Counseling Professional Development Series</td>
<td>Topics related to professional development in the field of genetic counseling are addressed. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC751</td>
<td>Clinical Genetics I</td>
<td>In-depth description of clinical aspects and genetic counseling issues of common genetic diseases. For first year GC students only. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC752</td>
<td>Clinical Genetics II</td>
<td>In-depth description of clinical aspects and genetic counseling issues of common genetic disorders. For first year GC students only. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC753</td>
<td>Clinical Genetics III</td>
<td>In-depth description of clinical aspects and genetic counseling issues of common genetic diseases. Geared for first year GC students only. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC754</td>
<td>Clinical Genetics IV</td>
<td>In-depth description of clinical aspects and genetic counseling issues of common genetic disorders. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC755</td>
<td>Clinical Genetics V</td>
<td>In-depth description of genetic aspects and genetic counseling issues of common genetic disorders. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>35GC766</td>
<td>Independent Study in Genetic Counseling</td>
<td>Independent study at the graduate level in genetic counseling, under the direction of G.C. Program faculty. Subject varies with student interests. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00</td>
</tr>
<tr>
<td>35GC767</td>
<td>Independent Study in Genetic Counseling</td>
<td>See 35-962-766. Credit Level: G. Credit Hrs: 1.00-6.00</td>
</tr>
<tr>
<td>35GC768</td>
<td>Independent Study in Genetic Counseling</td>
<td>See 35-962-766. Credit Level: G. Credit Hrs: 1.00-6.00</td>
</tr>
<tr>
<td>35GC777</td>
<td>Advanced Genetic Counseling Issues</td>
<td>Advanced clinical practice and professional issues in genetic counseling. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-3.00</td>
</tr>
<tr>
<td>35GC778</td>
<td>Advanced Genetic Counseling Issues</td>
<td>See 35-962-777. Credit Level: G. Credit Hrs: 1.00-3.00</td>
</tr>
<tr>
<td>35GC779</td>
<td>Advanced Genetic Counseling Issues</td>
<td>See 35-962-777. Credit Level: G. Credit Hrs: 1.00-3.00</td>
</tr>
</tbody>
</table>

H=University Honors course.
Genetic Counseling

35GC276
Research Design
This course provides genetic counseling students the skills and resources to develop their masters thesis research proposal and a protocol for submission to the IRB. Credit Level: G. Credit Hrs: 1.00

35GC871
Master's Thesis Research
Independent research towards master's degree. Credit Level: G. Credit Hrs: 1.00-15.00

35GC800
Community Education Experience
To develop educational interventions that accomplish the goals and meet the specific needs of the audience. Topics include: educational theory and pedagogy. Credit Level: G. Credit Hrs: 1.00-3.00

35GC826
Emerging Topics in Clinical Genomics
Series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular and biochemical testing, treatment of genetic conditions and other areas. Credit Level: G. Credit Hrs: 1.00-2.00

35GC827
Emerging Topics in Clinical Genomics
Series of invited speakers present lectures on diverse topics related to the spectrum of clinical genetics, genetic counseling, molecular and biochemical testing, treatment of genetic conditions and other areas. Credit Level: G. Credit Hrs: 1.00-2.00

35GC840
Clinical Practicum IV
This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00-3.00

35GC841
Clinical Practicum V
This course provides students with the opportunity to gain practical experience working with patients who are referred for genetic counseling. Credit Level: G. Credit Hrs: 1.00-3.00

35GC853
Genetic Counseling Case Conference
Review and discussion of cases seen for genetic counseling and medical genetic evaluation. Credit Level: G. Credit Hrs: 1.00

35GC854
Genetic Counseling Case Conference
See 35-962-853, Credit Level: G. Credit Hrs: 1.00

35GC855
Genetic Counseling Case Conference
See 35-962-853, Credit Level: G. Credit Hrs: 1.00

Genetic Counseling

35GC860
Teratology
Basic principles of teratology will be discussed. Topics include drug testing, pharmacokinetics, retinooids, thalidomide, environmental chemicals, anticonvulsants, diabetes, behavioral teratology, fetal alcohol syndrome, therapeutic drugs, infectious diseases, radiation, and hormones. Credit Level: G. Credit Hrs: 3.00

35GC881
Human Genetics
Introduction to basic human genetics including mitosis, meiosis, chromosome structure and mechanisms of rearrangement, inheritance, modes/mechanisms, mutational mechanism, population/quantitative genetics and biochemical genetics (polymorphisms). Credit Level: G. Credit Hrs: 3.00

35GC888
Cancer Genomics and Genetic Counseling
Study of genetic, environmental and epigenetic causes of cancer, syndromes and the related genetic counseling issues. Credit Level: G. Credit Hrs: 3.00

Health Information Management

35HIM504
Issues in Healthcare Delivery
This course provides an overview of US health care systems and their many components including organizational structures, mechanisms for health care delivery, health services financing, health policy, quality of health care and health information management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM506
Health Data Management
This course will provide the methods and technique to manage health care data, to develop documentation guidelines and understand compliance regulations and standards of AHIMA. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM508
Clinical Data Management
This course will focus on evaluating and analyzing clinical data. The course will address clinical classifications, terminologies, and future initiatives in coding. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM510
Applied Reimbursement Methods
This course will focus on analysis of reimbursement methods and the role of HIM professionals in revenue cycle management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM512
Computer Systems in Healthcare
Comprehensive study of computers in healthcare BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM514
Professional Computer Practicum
Supervised computer practicum in a healthcare facility. Emphasis on evaluation of computer applications and utilizing software applications. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM516
Legal and Ethical Issues in Healthcare
Study of legal and ethical issues in healthcare with a focus on practical applications in health information management BoK: NA. Credit Level: U. Credit Hrs: 5.00

H=University Honors course.
Health Information Management

35HIM520 Human Resource Management
Applications in managing health information management (HIM) departments in healthcare facilities. Students will apply theories and utilize best practices to the management of human resources. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM522 Professionalism and Leadership
Study of the management of change, team building, and leadership development related to practice in healthcare. Students will learn skills and outline effective strategies for communication. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM525 Clinical Terminologies and Classification Systems
Analysis of standard clinical terminologies including SNOMED, ICD-10-PCS, medical linguistics, medical vocabulary standards, natural language processing and the role of the healthcare vocabularies and clinical terminologies in the electronic health record. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM526 Financial and Resource Management
Financial aspects of healthcare and accounting principles. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM528 Strategic Planning and Organizational Development
Course will focus on strategic and operational plans in healthcare. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM530 Project and Operations Management
Application of project management techniques and implementing process engineering. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM532 Statistics and Research Methods
Analysis and presentation of data and introduction to research methods. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM534 Quality Management and Performance Improvement
Advanced study of the application of QI tools, evaluation of documentation standards, quality improvement, utilization and risk management, and credentialing. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM536 Capstone: Contemporary Issues in HIM
Discussion of emerging issues and trends in the health information management (HIM) field. Integrate studies and apply knowledge to problems and issues facing the HIM profession. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM538 Professional HIM Practicum
Professional practice course provides the student with the opportunity to integrate knowledge, behaviors, and professional attributes acquired throughout the curriculum that are necessary to the practice of HIM. The student will be involved in developing insight and skill in HIM management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HIM539 Medical Terminology
This course will cover medical terminology for health or allied health majors or anyone interested in learning medical terminology. The course will be formatted for online. Students will learn root words, combining forms, and application of learning via worksheets. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Health Sciences

35HLSC211 Musculoskeletal Anatomy
This course is designed to provide the student with a basic understanding of human movement. In order to allow the student to develop a sound working knowledge of surface musculature and bony landmarks, laboratory experience will be utilized throughout the course. Prereq: 15BIOL201. BoK: NS. Credit Level: U. Credit Hrs: 3.00
Health Sciences

35HLSC373
Health Care Ethics
This interdisciplinary course considers ethical theories and principles applicable to the allied health professions. Using scholarly inquiry, students will analyze ethical dilemmas that may occur in their professional roles. Students will address ethical issues across the lifespan in diverse socioeconomic and cultural situations. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35HLSC401
Recreation Across the Lifespan I
This course combines classroom study with service learning. Classroom study involves didactic information on aging and the effects of aging on physical activity. The service learning component provides students with weekly first-hand experience in implementing exercise programs for older adults. Students will utilize knowledge from previous coursework in anatomy, physiology, biomechanics, kinesiology, exercise testing, and strength and conditioning, and apply the principles to exercise and activity to the elderly population. This course is designed to contribute to the skills sets described by the ACSM and the NSCA as necessary components for entry level certifications. Prereq: 35HLSC345, 35HLSC340, 35HLSC360, 35HLSC332. Coreq: .. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC402
Recreation Across the Lifespan II
This course is designed to provide the student with the opportunity to apply previous course knowledge in a practical setting working with an adult population. The course will combine classroom activities with independent study and community engagement experiences. The students will apply the principles of exercise testing and prescription, kinesiology, biomechanics, and strength and conditioning in order to provide members of the community with guidance in matters of health and fitness. Prereq: 35HLSC401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC403
Recreation Across the Lifespan III
Combines on-line independent study with service learning. The on-line independent study portion of the course gives students the opportunity to design exercise programs for individuals of varying fitness levels. The service learning component provides students with weekly first hand experience in implementing exercise programs to members of the community who are between the ages of 5 and 20 years. Students will utilize knowledge from previous coursework in anatomy, physiology, biomechanics, kinesiology, exercise testing & strength & conditioning to the principles in the pediatric population. Prereq: 35HLSC402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC411
Physiology of Exercise I
Physiology of Exercise is the study of the human body’s short term responses and its long term adaptations to exercise. This is the first course in a sequence of three that will investigate the human body’s bio energy systems, the utilization during exercise and the application of these systems towards performance enhancement. Prereq: 15SCHEM103, 15BIOL103, 15BIOL203. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC412
Physiology of Exercise II
This course is an extension of Physiology of Exercise I. Cardiovascular physiology as it relates to exercise and ECG interpretation will be a major focus. In addition, special populations, environments, and supplemental aids will be addressed. Prereq: 35HLSC411. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35HLSC413
Physiology of Exercise III
This course is an extension of Physiology of Exercise II. The student will write an exercise prescription using work calculations and ECG data from a cardiorespiratory stress test and other fitness information. A lab...
Health Sciences

35HLSC522
Senior Project III
Year of the HLSC program. The course allows each student to work on his/her capstone experience which all Health Science students must complete prior to graduation. Prereq: 35HLSC521. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35HLSC523
Elective: Gait Analysis
Students will study the kinematic and kinetic aspects of normal and abnormal gait. Emphasis will be on the clinical analysis of gait and the development and completion of a project related to the biomechanics of walking and running. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

35HLSC567
Motor Learning for Performance
Online course with lectures, independent study, and guided lab activities that will focus on individual differences and information processing in the principles of motor control. The process of skill learning from preparation to feedback will be discussed. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

35HLSC570
Rational & Irrational Use of Drugs Abuse
Course will provide a basic understanding of how drugs that act on the brain produce their effects. The pharmacological, medical & social aspects of these drugs will be discussed. Emphasis will be placed on understanding how drugs act to produce desirable effects & undesirable or toxic effects. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

35HLSC600
Independent Study
Independent study into an area of interest (health sciences, biomechanics or rehabilitation sciences) to the student Perm of Instructor. BoK: NA. Credit Level: U. G. Credit Hrs: 1.00-4.00

Interdisciplinary Health Education

35HLTH101
Success in Allied Health I
A continuation of Freshman Orientation. Subjects to be covered include but are not limited to academic survival skills, interpersonal relationships, campus life outside the classroom and career decisions. BoK: HU. Credit Level: U. Credit Hrs: 2.00

35HLTH102
Success in Allied Health II
This course provides an overview and understanding of career development for CAHS students emphasizing academic preparation, career options, success and commitment to a career choice. BoK: HU. Credit Level: U. Credit Hrs: 1.00

35HLTH103
Success in Allied Health III
This course provides first-year students with hands-on experience in areas of career choice through service learning activities to further define their career goals. BoK: HU. Credit Level: U. Credit Hrs: 1.00

35HLTH373
Health Care Ethics
This interdisciplinary course considers ethical theories and principles applicable to nursing, pharmacology, and the allied health professions. Using scholarly inquiry, students will analyze ethical dilemmas that may occur in their professional roles. Students will address ethical issues across the lifespan in diverse socioeconomic and cultural situations. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35HLTH506
Health Data Management
This course will provide the methods and techniques to manage health care data, to develop documentation guidelines and understand compliance regulations and standards of AHIMA(accreditation organization). BoK: NA. Credit Level: U. Credit Hrs: 5.00

Interdisciplinary Health Education

35HLTH508
Clinical Data Management
This course will focus on evaluating and analyzing clinical data. The course will address clinical classifications, terminologies and future initiatives in coding. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HLTH510
Applied Reimbursement Methods
This course will focus on analysis of reimbursement methods and the role of HIM professionals in revenue cycle management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

35HLTH570
Integrative Therapies for Health Sciences
An interdisciplinary course introducing health science students to complimentary and alternative therapies. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

35HLTH650
Case Studies in Interdisciplinary Health Care
An interdisciplinary course designed to provide hands-on experience in the concepts and rationale or interdisciplinary care. Emphasis is placed on the essential need for interdisciplinary care and effective communication among the disciplines. BoK: DC., SE. Credit Level: U, G. Credit Hrs: 3.00

35HLTH660
Health Care Delivery Systems
This course is a broad overview of the U.S. health care system and its many components including organizational structures, mechanisms for health care delivery, health serves financing, determinants of health and health status, health policy, and quality of health care. BoK: HU. Credit Level: U, G. Credit Hrs: 2.00-5.00

35HLTH680
Legal Aspects of Health Care
This course explores the legal and regulatory environment within which health care providers and professional must operate. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

35HLTH673
Health Care Ethics
This interdisciplinary course considers ethical theories and principles applicable to nursing, pharmacology, and the allied health professions. Using scholarly inquiry, students will analyze ethical dilemmas that may occur in their professional roles. Students will address ethical issues across the lifespan in diverse socioeconomic situations. Credit Level: G. Credit Hrs: 2.00

Nutrition Sciences

35NUTR176
Food Science I
Basic culinary techniques, and menu planning; introduction to the study of the physical and chemical properties and sensory evaluation of food. Lecture and lab. BoK: NA. Credit Level: U. Credit Hrs: 4.00

35NUTR240
Personal Nutrition
This course is designed for majors and non-majors. The course will provide an overview of nutrient metabolism and review important functions of nutrients on life processes and the role of nutrients on health and disease. Tools to evaluate and analyze personal nutrition will be discussed. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35NUTR241
Principles of Nutrition
This course will review the scientific principles of nutrition with an emphasis on macronutrient and micronutrient metabolism and functions. The course includes an introduction to the basic methods of nutritional assessment. Prereq: 35NUTR240. BoK: NS. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Nutrition Sciences

35NUTR252
Lifecyle Nutrition
Nutritional needs to support growth and development from conception through adulthood and aging. Prereq: 35NUTR240. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35NUTR282
Explore Dietetics & Nutrition
Introduction to the field of Dietetics and Nutrition in relation to its history and practices in the health care system. An overview of policies, procedures and curricula in the Department of Nutritional Sciences will be provided. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35NUTR376
Food Science II
The study of the chemical and physical properties of food; the effects of processing on nutritive value; and sensory evaluation of foods. Prereq: 35NUTR176. BoK: QR. Credit Level: U. Credit Hrs: 4.00

35NUTR381
Communication Skills in Nutrition
Basic techniques of oral and written communication skills used in the field of nutrition. Includes oral presentations, interviewing and counseling techniques; development of lesson plans. Prereq: 35NUTR240. BoK: HU. Credit Level: U. Credit Hrs: 3.00

35NUTR382
Nutritional Assessment Methods
This course will provide students with an in-depth look at the major assessment techniques including dietary, anthropometric, physical and biochemical methods for assessing nutritional status. Students gain practical experience in applying specific assessment techniques to various disease states, including cardiovascular disease, diabetes gastrointestinal disease and renal disease. Prereq: 35NUTR252, 35NUTR603. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35NUTR476
Quantity Foods
Planning of institutional menus, including purchasing, preparation, and service of food. Lec. and lab. Prereq: 35NUTR376. BoK: QR. Credit Level: U. Credit Hrs: 4.00

35NUTR482
Professional Seminar
Discussion of goal setting, portfolio development, resume preparation, interviewing skills, and other topics related to professional development. Assist students in portfolio preparation to fulfill requirement for capstone experience for Dietetics and Food and Nutrition majors. BoK: NA. Credit Level: U. Credit Hrs: 2.00

35NUTR572
Projects and Problems in Nutrition
A course designed to allow students to pursue an individualized learning project with approval of and under supervision of a faculty member. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

35NUTR575
Community Nutrition
Nutrition programs in the community and fundamentals of nutrition care delivery. Includes nutrition assessment, nutrition education and design of programs. Prereq: 35NUTR240. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

35NUTR578
Institutional Management
Principles of management in institutional food service settings. Includes resource management, quality assurance, accounting and marketing. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

35NUTR580
Nutrition Practicum
Field experiences in areas of Nutrition, Nutrition and Business, Food Service, Management, or Nutrition and Exercise. Must be pre-arranged with instructor one quarter prior to enrollment. Senior standing. Majors H–University Honors course.


College of Allied Health Sciences   19
Nutrition Sciences

35NUTR692
Supervised Practice Experience II
Individually assigned site rotation that enable the student to demonstrate entry-level dietitian competence by attaining all of the Commission on Accreditation for Dietitians Education Core Competencies. Students work with, and are evaluated by a number of site preceptors. Participation is required in weekly programs designed to enhance the supervised practice experience. Prereq: 35NUTR691. BoK: NA. Credit Level: U, G. Credit Hrs: 15.00

35NUTR693
Supervised Practice Experience III
Individually assigned site rotations that enable the student to demonstrate entry-level dietitian competence by attaining all of the Commission on Accreditation for Dietitians Education Core Competencies. Students work with, and are evaluated by, a number of site preceptors. Participation is required in weekly programs designed to enhance the supervised practice experience Prereq: 35NUTR692. BoK: NA. Credit Level: U, G. Credit Hrs: 15.00

35NUTR694
Supervised Practice Experience IV
Individually assigned site rotations that enable the student to demonstrate entry-level dietitian competence by attaining all of the Commission on Accreditation for Dietitians Education Core Competencies. Students work with, and are evaluated by, a number of site preceptors. Participation is required in weekly programs designed to enhance the supervised practice experience Prereq: 35NUTR693. BoK: NA. Credit Level: U, G. Credit Hrs: 15.00

35NUTR782
Nutrition Strategies for Behavior Change
Understanding and application of theoretical frame works from the behavioral sciences to design nutrition intervention programs to various groups and to facilitate the adoption of healthful behaviors. Prereq: 35NUTR240. Credit Level: G. Credit Hrs: 3.00

35NUTR783
Macronutrients
An in-depth examination of energy and macronutrient metabolism. Prereq: 28CHEM206. Credit Level: G. Credit Hrs: 3.00

35NUTR784
Vitamin Nutrition
For each vitamin, consideration will be given to structure, sources, digestion, absorption, transport, functions and mechanisms of action, metabolism and excretion, recommended dietary allowance or dietary reference intake, deficiency, toxicity, and assessment of nutrition. Prereq: 28CHEM206. Credit Level: G. Credit Hrs: 3.00

35NUTR785
Mineral Nutrition
A course that will allow students to demonstrate a gain in knowledge related to the biochemical and physiological aspects of mineral nutrition. A discussion of current research related to mineral nutrition. Prereq: 28CHEM206. Credit Level: G. Credit Hrs: 3.00

35NUTR786
Advanced Clinical Nutrition
This course is based on a knowledge of macro- nutrient metabolism, physiology & biochemistry. Chronic and acute diseases that involve diet therapy will be examined from the standpoint of understanding the disease state and the current nutritional approaches to preventing and/or managing the disease. Prereq: 35NUTR783, 29NURS820. Credit Level: G. Credit Hrs: 3.00

35NUTR787
Topics in Nutrition Research
Students will learn the skills required to critically evaluate current nutrition research through reading research articles, interpreting results and conclusions, and searching for relevant literature. Prereq: 35NUTR240. Credit Level: G. Credit Hrs: 3.00

Nutrition Sciences

35NUTR788
Methods in Nutritional Assessment
The aims of this course are to provide the skills for understanding and evaluating the dietary, clinical, and biochemical components in the assessment of nutritional status of individuals and communities. Prereq: 35NUTR783, 35NUTR784. Coreq: 35NUTR785. Credit Level: G. Credit Hrs: 3.00

35NUTR871
Individual Study in Food and Nutrition
Individual research on a problem in the area of food and nutrition. Credit Level: G. Credit Hrs: 1.00-9.00

35NUTR872
Readings in Food and Nutrition
A selected program of readings regarding major research contributions in the area of food and nutrition when there is no opportunity in a regularly scheduled class to pursue such an investigation. Credit Level: G. Credit Hrs: 1.00-9.00

35NUTR874
Masters Thesis Guidance
A research investigation. Credit Level: G. Credit Hrs: 1.00-6.00

Physical Therapy

35PT500
Sports Medicine Seminar I
Lecture/Seminar/ Journal Club Series to bring new techniques, research and protocols to discussion in the sports medicine field. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

35PT501
Sports Medicine Seminar II
Seminar Course geared toward active discussion following formal presentations and journal article review 2X a quarter. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

35PT831
Physiology, Pathology and Pharmacology I
Part I focuses on the basic principles of cell physiology and histology, homeostasis, and general introduction to the physiology of musculoskeletal system. In addition, pathologies of inflammation, cell and tissue injury and healing, immunopathology, general principles of pharmacology are also included. Emphasis will be on understanding and application of information of the respective topics. Credit Level: G. Credit Hrs: 3.00

35PT832
Physiology, Pathology and Pharmacology II
Part II emphasis is on an in-depth study of physiology, pathophysiology, and pharmacology of the musculoskeletal and endocrine systems, and cancer. Credit Level: G. Credit Hrs: 3.00

35PT833
Physiology, Pathology & Pharmacology III
This course emphasizes the physiology, pathophysiology and pharmacology of the cardiopulmonary systems, blood, and digestive system. Credit Level: G. Credit Hrs: 3.00

35PT834
Physiology, Pathology and Pharmacology IV
This course emphasizes the physiology, pathology, and pharmacology of the nervous and renal systems and the skin. Credit Level: G. Credit Hrs: 3.00

35PT835
Physiology, Pathology and Pharmacology V
This section discusses selective topics and case studies of various medical conditions. Emphasis on recognizing and management of medical emergencies will be discussed thoroughly. Credit Level: G. Credit Hrs: 2.00
Physical Therapy

35PT841  Movement Science I
This course will introduce students to the concepts of motor learning and progress to the analysis of static and dynamic activities in the upper quarter. Students will use biomechanical principles to study joint motion and the forces involved in activities of the cervical spine and upper extremity. Credit Level: G. Credit Hrs: 2.00

35PT842  Movement Science II
Students will use biomechanical principles to study joint motion and the forces involved in activities of the thoracic and lumbar spine and lower extremity. The components of gait and posture, including deviations will be covered. Credit Level: G. Credit Hrs: 3.00

35PT843  Movement Science III
Theories and principles of motor control and motor learning, concepts related to recovery of function and plasticity, models of disablement will be covered. Conceptual frameworks for clinical practice, normal aging and abnormal postural control and balance, and an introduction of constraints on motor control in general neurological impairments will be covered. Applied neuroscience will be the focus of laboratory activities related to motor control and learning. Credit Level: G. Credit Hrs: 3.00

35PT844  Movement Science IV
This course will focus on motor development from conception through old age. The impact of age related changes, including social, psychological and physiological on functional movement will be discussed. Students will be introduced to some common abnormalities and pathologies. The material will be presented primarily in a lecture format although several laboratory sessions, primarily observation, such as observing typical infant development, will be included. Videos and computer assisted learning will also be utilized. Credit Level: G. Credit Hrs: 4.00

35PT845  Movement Science V
This course will focus on development from conception through old age. The impact of age related changes, including social, psychologic and physiologic, on functional movement will be discussed. Students will be introduced to some common abnormalities and pathologies, with an emphasis on the pediatric and geriatric populations, as well as appropriate PT intervention. The material will be presented primarily in a lecture format with one laboratory session on infant/child development. Videos and computer assisted learning will also be utilized. Credit Level: G. Credit Hrs: 2.00

35PT846  Patient Management I: Musculoskeletal Conditions
This course will focus on physical therapy evaluation and differential diagnosis in relationship to orthopedic problems of the upper extremity joints. Emphasis will be placed on differential diagnosis, imaging, conservative management and post surgical management of the shoulder, elbow and wrist/hand. Credit Level: G. Credit Hrs: 4.00

35PT847  Patient Management II: Musculoskeletal Conditions
This course will focus on physical therapy evaluation and differential diagnosis in relationship to orthopedic problems of the lower extremity joints. Emphasis will be placed on differential diagnosis, imaging, conservative management and post surgical management of the hip, knee, and ankle. Credit Level: G. Credit Hrs: 3.00

35PT848  Patient Management III: Musculoskeletal Conditions
This course will focus on the physical therapy examination, evaluation, diagnosis, prognosis, intervention, reexamination, outcomes, and criteria for discharge in patients with spinal and TMJ dysfunctions. Emphasis will be placed on differential diagnosis, imaging, common conservative/postoperative management and interventions of lumbosacral, sacroiliac, thoracic, cervical and temporomandibular

35PT849  Patient Management IV: Musculoskeletal Conditions
Disorders. Spinal joint mobilization will be mastered. Primary prevention/risk factor reduction strategies for the specific patient/client diagnostic groups will also be covered. Credit Level: G. Credit Hrs: 3.00

35PT856  Patient Management I: Neuromuscular Conditions
Techniques of examination (history, systems review, and tests and measures) and evaluation of patients and clients with impaired motor function and sensory integrity associated with congenital, acquired, and progressive disorders of the central nervous system throughout the life span will be covered. The theoretical and research basis for treatment approaches of the above patient/client problems will also be covered. The identification of problems and their possible solutions, the implementation of the solutions, and alternative treatments will be emphasized. Credit Level: G. Credit Hrs: 4.00

35PT857  Patient Management II: Neuromuscular Conditions
A continuation of Neuromuscular Conditions I. Topics covered will include rehabilitation concepts and the special needs of the patient, evaluation, utilization of imaging, and treatment planning of patients with neuromuscular disorders, including TIA, CVA, TBI, Parkinsons Disease, MS, ALS as well as acute or chronic polyneuropathies including Guillain-Barre syndrome and post-polio syndrome. Credit Level: G. Credit Hrs: 5.00

35PT858  Patient Management III: Neuromuscular Conditions
A continuation of Neuromuscular Conditions II. Topics covered will include rehabilitation concepts and the special needs of the patient, evaluation, utilization of imaging, and treatment planning of adults and children with neuromuscular disorders, including SCI, myelodysplasia and cerebral palsy. Additionally, wheelchair prescription and adaptations utilized with clients with neuromuscular dysfunction will be covered. Credit Level: G. Credit Hrs: 5.00

35PT860  Introduction to Applied Anatomy
This course is a two and one half week session designed as a prelude to the subsequent two quarters of Applied Anatomy. The student will be given an introduction to concepts fundamental to human anatomy including anatomical terminology, cross sectional anatomy, radiology and dissection skills. Student conducted cadaver dissections and prosections will be used to facilitate the student's understanding of structure, location and function of organs, muscles and other anatomic structures. The course will be taught using a regional approach. The regions to be covered in this session are the back, pectoral region and an introduction to the upper extremity. Case studies relating anatomy to clinical findings will be considered on a regular basis during student led discussions. Credit Level: G. Credit Hrs: 2.00

35PT861  Applied Anatomy I
During this course, the student will be given an introduction to concepts fundamental to human gross anatomy including anatomical terminology, cross sectional anatomy, radiology and dissection skills. Student-conducted cadaver dissections, prosections & anatomical models will be used to facilitate the student's understanding of structure, location & function of muscles, blood vessels, nerves & other anatomic structures. The course will be taught using a regional approach. The regions to be covered are vertebral column, upper extremity and thorax. Credit Level: G. Credit Hrs: 3.00

35PT862  Applied Anatomy II
This course follows Applied Anatomy I and continues an in-depth investigation into normal human anatomy. Student-conducted cadaver dissections, prosections and anatomical models will be used to facilitate the student's understanding of structure, location & function of muscles, blood vessels, nerves, organs & other anatomic structures. The regions
Policies will be examined as the student discovers the role of the “PT as center of care.” Organizational structure & behavior, public & health to reflect on & respond to the concept of “cultural competence & patient student practices active listening, interviewing & negotiation skills with dynamics of interpersonal communication will be explored as the theories/components of intentional change & learning styles. The student will examine & apply communication theories & learning to assess themselves in and develop a plan for professional concepts of professionalism, communication, applicable laws, ethics, issues, such as end of life issues, related to patient care. Credit Level: G. Credit Hrs: 3.00

This course will cover the basic functional anatomy of the human nervous system. Emphasis will be placed on the structure and function of the major components of the central, autonomic & peripheral nervous system diseases & dysfunctions. Student-conducted cadaver dissections, projections, brain sections & anatomical models will be used to facilitate the student's understanding of structure, location & function of organs, muscles & other anatomic structures. Credit Level: G. Credit Hrs: 4.00

Patient Management I: Medical Conditions (Integumentary) Topics covered will include rehabilitation concepts and the special needs of the patient with integumentary problems, including evaluation, documentation, and treatment planning of patients with wounds and burns. Peripheral Vascular disease examination and intervention will also be covered. Credit Level: G. Credit Hrs: 4.00

This course will cover the examination, evaluation, diagnosis, prognosis, and intervention of patients with acute medical conditions, co-morbidities, and other conditions, including the normal and abnormal function of the cardio-pulmonary system. Elements of patient management within the acute care setting will be addressed including elements of patient management with primary and secondary diagnosis involving the cardiopulmonary system. Credit Level: G. Credit Hrs: 4.00

Patient Management III: Medical Conditions (Rehabilitation) Topics covered will include rehabilitation concepts and the special needs of the patient with amputation, including evaluation, documentation, and treatment planning of this type of patient. Prosthetic management will also be covered. Credit Level: G. Credit Hrs: 3.00

Special Considerations in Clinical Management This course will cover the physical therapy management of patients: in unique clinical settings, such as the educational setting; with selected diagnoses, such as genitourinary dysfunction and other women’s health issues; and affected by specific cultural, legal and health care system issues, such as end of life issues, related to patient care. Credit Level: G. Credit Hrs: 3.00

Professional Roles I This course introduces students to the profession of physical therapy. Concepts of professionalism, communication, applicable laws, ethics, and the scope of practice are discussed. Students begin the process of learning to assess themselves in and develop a plan for professional development. Credit Level: G. Credit Hrs: 2.00

Professional Roles II The student will examine & apply communication theories & theories/components of intentional change & learning styles. The dynamics of interpersonal communication will be explored as the student practices active listening, interviewing & negotiation skills with a variety of health care system stakeholders. The student will continue to reflect on & respond to the concept of “cultural competence & patient centered care.” Organizational structure & behavior, public & health policies will be examined as the student discovers the role of the “PT as Consultant.” Credit Level: G. Credit Hrs: 2.00

Evidence Based Physical Therapy I The purpose of this course is to introduce the student to research methods and concepts with special emphasis on critically analyzing evidence. The course will focus on various aspects of clinical or epidemiological research in the field of physical therapy. Students in this course will be expected to: 1) critically analyze evidence, both current cumulative evidence and individual published articles; and 2) apply this evidence to clinical cases. Specific methods and concepts that will be introduced include epidemiological terms and concepts, study design, reliability and validity, and statistics (descriptive, analytical, parametric, and nonparametric). Credit Level: G. Credit Hrs: 3.00

Evidence Based Physical Therapy II This course will focus on various aspects of clinical or epidemiological research in the field of physical therapy. This class applies topics learned in EBPT I and integrates them into clinical decision making. The emphasis in EBPT II will be on interventions, tests and measures learned or being currently learned during the Patient Management series (Neuromuscular, Acute and Integumentary). Throughout this class, you may find it useful to refer to the notes and textbooks you used during these classes. The goals of this class are 1) to critically analyze evidence, both current cumulative evidence and individual published articles; and 2) apply this evidence to clinical cases. Credit Level: G. Credit Hrs: 2.00

Evidence Based Physical Therapy III The goal of this class is for you to critically analyze evidence from published articles and apply it to clinical case studies. The course will focus on various aspects of clinical or epidemiological research in the field of physical therapy. Emphasis will be on diagnosis, prognosis, interventions, and tests and measures learned in previous coursework. Credit Level: G. Credit Hrs: 2.00

Examination I This course introduces students to imaging and the examination process. Students assimilate the language of health care, demonstrating appropriate documentation skills, as they begin the review of the medical record, the interview process and the review of systems. PT related imaging techniques are introduced along with the objective measurements of range of motion and manual muscle testing. Adaptation of these skills to differing populations is included. Credit Level: G. Credit Hrs: 3.00

Examination II This course expands on the examination and evaluation skills of the upper quarter. Students continue to progress interviewing skills through the collection of pertinent medical history, the viewing of applicable imaging, & the gathering of subjective information. As part of the management of patients with upper quarter symptoms, students continue to conduct appropriate systems reviews & administer appropriate tests & measures. Implications for upper quarter evaluation, diagnosis & prognosis are included. Credit Level: G. Credit Hrs: 4.00

Examination III This course expands on the examination & evaluation skills of the lower quarter. Students continue to progress interviewing skills through the

H--University Honors course.
Physical Therapy

35PT883 Examination III
collection of pertinent medical history, the viewing of applicable
imaging, and the gathering of subjective information. As part of the
management of patients with lower quarter symptoms, students
continue to conduct appropriate systems reviews and administer
appropriate tests and measures. Implications for lower quarter
evaluation, diagnosis and prognosis are included. Credit Level: G.
Credit Hrs: 4.00

35PT884 Examination IV
This course expands on the examination and evaluation skills.
Emphasis is placed on patients with musculoskeletal systems involving
the trunk. Students will also integrate basic examination skills related to
posture, gait, spasticity, reflexes and development. Variations within
populations will be presented. Credit Level: G. Credit Hrs: 4.00

35PT885 Imaging I
This course covers basic principles and interpretation of diagnostic
imaging modalities as they apply to physical therapy. The emphasis is
on plain film radiography, including the basic physics of imaging
techniques, viewing, interpreting films, radiographic anatomy and
clinical correlation with orthopedic patient cases. Other types of
imaging, including contrast studies, MRI and CT will be examined.
Credit Level: G. Credit Hrs: 1.00

35PT886 Imaging II
This course covers basic principles and interpretation of diagnostic
imaging modalities as they apply to physical therapy. The emphasis is
on the basic physics of imaging techniques, viewing, interpreting films,
radiographic anatomy and clinical correlation with patient cases on the
chest, abdomen, genitourinary system, and the brain. Other types of
imaging including contrast studies, MRI, and CT will be studied.
Credit Level: G. Credit Hrs: 1.00

35PT887 Interventions I
An introduction to the basic skills required for physical therapists to
begin progressive mobility training. Patient problems, lecture and lab
will guide students through the development of good body mechanics,
the spectrum of mobility training, wheelchair skills, transfers, assistive
devices, positioning, draping, and active and passive ROM. Credit
Level: G. Credit Hrs: 3.00

35PT888 Interventions II
This course will introduce students to physical therapy interventions.
Patient problems, lecture & lab will guide students through the
development of appropriate positioning, draping & infection control
techniques needed for physical agents. Emphasis will be on the
physical principles, biophysical effects & clinical indications &
procedures associated with the implementation of electrical current,
electromagnetic heat, cold, light & acoustic energy & massage in the
prevention & treatment of dysfunction. Credit Level: G. Credit Hrs: 4.00

35PT889 Interventions III
Students will master the principles of exercise, strengthening,
stretching, & advanced therapeutic exercise techniques. The use of
basic evaluation techniques to select appropriate exercises will be
covered as well as the physiological response to exercise. Theories,
advantages, & indications of several approaches will be discussed.
Patient problems will be utilized for students to develop exercise
programs & become familiar with functional progression. Students will
utilize evaluation findings & literature to justify exercises in
treatment plan. Credit Level: G. Credit Hrs: 3.00

H—University Honors course.
The course will review research methodology with the focus of conducting a clinical case study. Students will be introduced to scientific writing techniques. In order to prepare the students for the research capstone project, they will be assigned a simulated clinical patient (written) and be asked to design a case study plan/ intervention via evaluation of effectiveness through ability to monitor outcomes. The PT Practice V is the final capstone experience the student will have in the program. The student should be at entry-level competence in the practice of physical therapy.

Credit Level: G. Credit Hrs: 10.00

35PT910 Research I

This course will provide an understanding of the skills required in conducting research in health related sciences with emphasis on the PT field. Students will be introduced to the basics of research: thinking processes, design approaches & statistical analysis of findings. They will also be familiarized with the rules & regulations for conducting basic & clinical research. In addition, students will be introduced to guidelines for writing research protocols. Finally, they will acquire skills necessary to conduct and present their findings for publications or presentations.

Credit Level: G. Credit Hrs: 3.00

35PT911 Clinical Research I

The goal of this class is to prepare students to conduct their research capstone project. The majority of students will conduct a case study as their capstone project. This course will review research methodology with the focus of conducting a clinical case study. Students will be introduced to scientific writing techniques. In order to prepare the students for the research capstone project, they will be assigned a simulated clinical patient (written) and be asked to design a case study for that patient including conducting a literature search. Finally, during this quarter students will be assigned a faculty advisor and begin to identify a possible capstone project. The faculty advisor will be the instructor through the Clinical Research II-V. The culmination of the Clinical Research series will be a research capstone project that the students will present (either poster or oral) at the annual College of Allied Health Sciences research day, PRaISE. Assignment of the faculty advisor and identification of a possible capstone project occurs during Clinical Research I. Credit Level: G. Credit Hrs: 1.00-3.00

35PT912 Clinical Research II

The goal is to guide the student's progress toward completion of the research capstone project. The faculty advisor is the instructor for the series of Clinical Research II-V. Students have the option of choosing to complete a case study or making a contribution to the American Physical Therapy "Hooked on Evidence" site. The capstone project is the culmination of the Clinical Research course series. Completion of the capstone will require students to search the literature in a specific area of physical therapy practice, analyze and critically evaluate the literature, and apply the knowledge gained from the literature in a scientific manner to the appropriate population. Results of the capstone project will be presented in a poster or oral format at the College of Allied Health Sciences annual student PRaISE conference. In addition, the faculty advisor may request that the student submit the capstone project for future dissemination in a peer reviewed journal or at a conference. Assignment of the faculty advisor and identification of a possible capstone project occurs during Clinical Research I. Credit Level: G. Credit Hrs: 1.00-3.00

35PT913 Clinical Research III

The goal is to guide the student's progress toward completion of the research capstone project. The faculty advisor is the instructor for the series of Clinical Research II-V. Students have the option of choosing to complete a case study or making a contribution to the American Physical Therapy "Hooked on Evidence" site. The capstone project is the culmination of the Clinical Research course series. Completion of the capstone will require students to search the literature in a specific area of physical therapy practice, analyze and critically evaluate the literature, and apply the knowledge gained from the literature in a scientific manner to the appropriate population. Results of the capstone project will be presented in a poster or oral format at the College of Allied Health Sciences annual student PRaISE conference. In addition, the faculty advisor may request that the student submit the capstone project for future dissemination in a peer reviewed journal or at a conference. Assignment of the faculty advisor and identification of a possible capstone project occurs during Clinical Research I. Credit Level: G. Credit Hrs: 1.00-3.00

35PT914 Clinical Research IV

The goal is to guide the student's progress toward completion of the research capstone project. The faculty advisor is the instructor for the series of Clinical Research II-V. Students have the option of choosing to complete a case study or making a contribution to the American Physical Therapy "Hooked on Evidence" site. The capstone project is the culmination of the Clinical Research course series. Completion of the capstone will require students to search the literature in a specific area of physical therapy practice, analyze and critically evaluate the literature, and apply the knowledge gained from the literature in a scientific manner to the appropriate population. Results of the capstone project will be presented in a poster or oral format at the College of Allied Health Sciences annual student PRaISE conference. In addition, the faculty advisor may request that the student submit the capstone project for future dissemination in a peer reviewed journal or at a conference. Assignment of the faculty advisor and identification of a possible capstone project occurs during Clinical Research I. Credit Level: G. Credit Hrs: 1.00-3.00

35PT915 Clinical Research V

The goal is to guide the student's progress toward completion of the research capstone project. The faculty advisor is the instructor for the series of Clinical Research II-V. Students have the option of choosing to complete a case study or making a contribution to the American Physical Therapy "Hooked on Evidence" site. The capstone project is the culmination of the Clinical Research course series. Completion of the capstone will require students to search the literature in a specific area of physical therapy practice, analyze and critically evaluate the literature, and apply the knowledge gained from the literature in a scientific manner to the appropriate population. Results of the capstone project will be presented in a poster or oral format at the College of Allied Health Sciences annual student PRaISE conference. In addition, the faculty advisor may request that the student submit the capstone project for future dissemination in a peer reviewed journal or at a conference. Assignment of the faculty advisor and identification of a possible capstone project occurs during Clinical Research I. Credit Level: G. Credit Hrs: 1.00-3.00

Physical Therapy Technology

35PTTN204 Physical Therapist Assisting Assessments

The student will learn how to measure joint range of motion and how to...
Physical Therapy Technology

35PTTN204
Physical Therapist Assisting Assessments
perform manual muscle testing. Normal range of motion and kinesiology are emphasized. Prereq: C or better in 35-PTTN-2 03 BoK: NS. Credit Level: U. Credit Hrs: 6.00

35PTTN205
Therapeutic Exercise
In-depth study of therapeutic exercise with emphasis on anatomy, kinesiology, and neurological principles. Prereq: C or better in 35-PTTN-204. Prereq: 35PTTN204. BoK: NS. Credit Level: U. Credit Hrs: 6.00

35PTTN211
Physical Therapist Assisting Sports Medicine Seminar
This course will cover treatment, care, rehabilitation and prevention of sports and common orthopedic injuries. These concepts will be presented through the use of lecture, discussion, demonstration, laboratory and visual media. Prereq: C or better in all previous Technical Core coursework. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35PTTN212
Physical Therapist Assisting Pediatric/Geriatric Seminar
A study of the special needs of the pediatric patient, the permanently disabled, and the geriatric patient with emphasis on functions related to activities of daily living. Prereq: 35PTTN211 & C or better in all previous Technical Core coursework. Prereq: 35PTTN211. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35PTTN213
Physical Therapy Seminar III
Course occurs during the Spring quarter of the technical core year. Review of content in preparation for the licensing exam occurs and information on preparing for employment is reviewed. Prereq: 35PTTN212 & C or better in all previous Technical Core coursework. BoK: NA. Credit Level: U. Credit Hrs: 1.00

35PTTN273
Physical Therapist Assisting Functional Anatomy
In-depth study of human anatomy with emphasis on muscles, ligaments, the peripheral neurological and vascular systems, and joint movement. Important kinesiological concepts are covered and correlated to the respective anatomy. Prereq: C or better in all previous Technical Core coursework. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN274
Applied Neuroanatomy
This course will cover the basic functional anatomy of the human nervous system. Emphasis will be placed on the structure and function of the major components of the central and peripheral nervous systems. This information will enable the student to explain and understand the basis of several nervous system diseases and dysfunctions. Additionally, treatment techniques for the neurologically involved client will be reviewed and discussed. Prereq: C or better in all previous Technical Core coursework. Prereq: 35 PTTN 273 & C or better in all previous Technical Core coursework. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN277
Physical Therapist Assisting Problems-Applications
Students will perform various exercise and rehabilitative programs in a clinical setting under the supervision of a PT. Students must have a current CPR certification in order to take this course. Prereq: C or better in all Technical Core Winter courses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35PTTN281
Physical Therapist Assisting Modalities
Students must have current CPR certification in order to take this course. Prereq: C or better in all Technical Core Winter courses. BoK: NA. Credit Level: U. Credit Hrs: 6.00

Physical Therapy Technology

35PTTN281
Physical Therapist Assisting Modalities
3.00

35PTTN283
Physical Therapist Asst Problems-Therapeutic Exercise
Student will develop and carry out exercise programs for patients in a clinical setting under the supervision of a PT. Students must have a current CPR certification in order to take this course. Prereq: C or better in all Technical Core Winter courses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

35PTTN285
Cardiopulmonary Function
Study of the relationship among the heart, lungs, and circulatory systems. Disease processes, cardiac rehabilitation, physical fitness, exercise, and wellness are studied. Prereq: C or better in all previous Technical Core coursework. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN287
Physical Rehabilitation
This course will cover rehabilitation concepts and the special needs of the rehabilitation patient. Collaboration with other health care professionals using a team approach is emphasized. The rehabilitation of patients with stroke, brain injury, spinal cord injury, amputations, and total joint replacement will be included. Specific treatment approaches will be offered. Lab time and patient interaction will be provided. Prereq: C or better in all previous Technical Core coursework. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN289
Clinical Integration
This course combines knowledge of the various aspects of muscle physiology and the mechanical principles of human movement with a study of human kinesiology and those injuries and diseases which limit normal function and movement. The course will be disease oriented. BoK: NS. Credit Level: U. Credit Hrs: 3.00

35PTTN294
Human Behavior in Health & Sickness for Health Related Programs
This course will discuss the various aspects of human behavior in response to illness. Emphasis will be on understanding normal versus abnormal reactions to illness, and therefore being able to apply the most effective therapy regimen. The course will consist of lectures, case studies, and observation of psychiatric evaluations. This course is available to all majors. BoK: SS. Credit Level: U. Credit Hrs: 3.00

35PTTN298
Clinical Internship
Student will prepare and perform PT treatments in a physical therapy facility under the supervision of a licensed physical therapist. Students must have a current CPR certification in order to take this course. Prereq: C or better in all Technical Core Winter courses. BoK: NA. Credit Level: U. Credit Hrs: 6.00

H=University Honors course.
COLLEGE OF APPLIED SCIENCE
COURSE DESCRIPTIONS
Accounting

32ACCT091
Fundamentals of Bookkeeping-Accountancy I
An introduction to the theory and principles of basic bookkeeping and contemporary accountancy. Students will learn how to collect, record, and present basic financial data. Candidates with 5 or more years of bookkeeping accountancy experience may petition to waive this course through an online examination. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT092
Fundamentals of Bookkeeping-Accountancy II
An examination of advanced transactions in bookkeeping accountancy. Students will explore bookkeeping-accountancy standards for assets, liabilities and equities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT093
Fundamentals of Bookkeeping-Accountancy III
An examination of specialized transactions in bookkeeping-accountancy. Students will explore the corporate accounts and fundamentals of statement preparation. Prereq.: Fund of Bkpg Acct II (32ACCT092). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT094
Fundamentals of Managerial Accounting
An examination of introductory topics in Managerial Accounting. Coverage will include contemporary issues in the application of bookkeeping-accountancy to the use and interpretation of data for managerial efficiency. Prereq.: Fund of Bkg-Acctg III (32ACCT093). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT095
Fundamentals of Financial Statement Analysis
An introduction to basis financial statement analysis. Students will prepare a formal analysis of a company using contemporary analytical standards. Prereq.: Fund of Bkpg-Acctg III (32ACCT093). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT096
Fundamentals of Desktop Computer Accounting
The use of contemporary accounting software designed for desktop computers. Student will complete all transactions of the bookkeeping accountancy cycle with proprietary bookkeeping-accountancy programs. Prereq.: Fund Bkpg Accts III (32ACCT093). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ACCT100
Seminar in Accounting Information Systems
The purpose of this course is to help students bridge the gap between the academic application of concepts learned in the Accounting Information Systems Program and its pragmatic utilization. As a result of the internship, students should develop greater appreciation for the efficacy of classroom learning and the importance of academic preparation. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ACCT101
Principles of Accounting I

32ACCT102
Principles of Accounting II
Asset, equity, and revenue measurement. Compound interest and present value, partnership accounting. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ACCT103
Principles of Accounting III
Stockholders' equity. Analysis of financial statements. Accounting for price level changes. BoK: QR. Credit Level: U. Credit Hrs: 3.00
### Architectural Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credit Level</th>
<th>Credit Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>32ARTN522</td>
<td>Senior Architectural Project I</td>
<td>Research, programming and schematic design of major senior project; mid-rise,</td>
<td>U</td>
<td>4.00</td>
</tr>
<tr>
<td>32ARTN523</td>
<td>Senior Architectural Project II</td>
<td>Preparation of contract documents for building design in Senior Architectural</td>
<td>U</td>
<td>4.00</td>
</tr>
<tr>
<td>32ARTN524</td>
<td>Photographics</td>
<td>Uses of photographic methods in the design and study of buildings. Darkroom</td>
<td>U</td>
<td>5.00</td>
</tr>
<tr>
<td>32ARTN571</td>
<td>Global Experience In Construction Science</td>
<td>A faculty guided, three-week study abroad experience in which students will</td>
<td>U</td>
<td>3.00</td>
</tr>
<tr>
<td>32ARTN573</td>
<td>Mechanical Systems</td>
<td>Study of environmental control equipment for buildings. Topics covered</td>
<td>U</td>
<td>4.00</td>
</tr>
<tr>
<td>32ARTN581</td>
<td>3 Dimension Computer Graphics</td>
<td>Develop graphic skills required to construct 3-dimensional computer models</td>
<td>U</td>
<td>4.00</td>
</tr>
</tbody>
</table>

### Electrical Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credit Level</th>
<th>Credit Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>32ARTN372</td>
<td>Electrical Systems</td>
<td>Power generation and transmission, equipment comparison and analysis. Design</td>
<td>U</td>
<td>3.00</td>
</tr>
</tbody>
</table>

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H=University Honors course.
Architectural Technology

32ARTN581
3 Dimension Computer Graphics
NA. Credit Level: U. Credit Hrs: 3.00

32ARTN582
3D COMPUTER RENDERING
Students will develop those graphic skills required to construct and render 3-Dimensional computer models using 3D Studio Viz R2. Students will also develop an understanding of 3-Dimensional principles and techniques utilized in solid rendering and surface mapping processes. 3-Dimensional modeling experience using AutoCAD software is required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ARTN583
Applied 3D Graphics & Rendering
Apply skills acquired in 3D Computer Rendering in a workplace scenario. Students will construct a complete model showing interior and exterior renderings as well as rendered cross sections. Prereq: 32ARTN582. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Business Administration

32BA171
Introduction to Business
A functional overview of business which includes major issues in business today and business career opportunities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BA215
Directed Study - Business Administration
This course is designed for students who require individualized instruction in Business Administration. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BA271
Introduction to Business: Study Abroad
A study abroad course comparing American and foreign management, marketing, finance, human resources and production practices. Cultural differences affecting business practices will also be analyzed. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Biological Sciences

32BIOL144
Principles of Cell Biology I
An introduction to the principles and laboratory techniques associated with contemporary cell biology. This course will examine the major biological, chemical, and structural components of eukaryotic cells. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32BIOL145
Principles of Cell Biology II
A continuation of Principles of Cell Biology I. Prereq: 32BIOL144. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32BIOL154
Principles of Cell Biology I Laboratory
Laboratory experiments, designed to complement lecture material in Prin of Cell Biology I. Coreq: 32BIOL144. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32BIOL155
Principles of Cell Biology II Laboratory
Laboratory experiments - design to complement lecture materials in Prin of Cell Biology II. Prereq: 32BIOL154. Coreq: 32BIOL145. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Business Law

32BLAW215
Directed Study - Business Law
This course is designed for students who require individualized instruction in Business Law. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Business Law

32BLAW271
Business Law I
A study of the legal environment of business, including the principles of dispute resolution, tort, consumer protection, antitrust and employment law. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

32BLAW272
Business Law II
Contract and property law. The law of negotiated obligations, with emphasis on economic and social reasons for contract rules. Introduction to the Uniform Commercial Code. Survey of the law of real and personal property. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

Building Trades Technology

32BLTN001
Blueprint Reading for Building Trades
Introductory course in reading building drawings to understand the several branches of work and their relation to each other; examination of contracts, documents, calculations. Knowledge of basic arithmetic required. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32BLTN010
Occupational Safety & Health Standards for the Construction Industry
This course covers OSHA policies, procedures and standards, as well as construction safety and health principles. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN015
Trainer Course for the Construction Industry Standard
This course is designed for the students in the private sector who are interested in teaching the 10- and 30-hour construction safety and health outreach program to their employees and other interested groups. Special emphasis is on those topics that are required in the 10- and 30-hour program and the most hazardous, using OSHA standards as a guide. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN107
Construction Materials
Investigation and laboratory experimentation with a wide range of materials and methods. Emphasis on soils, masonry, concrete, and light framing with steel and wood. Group lab projects, films, guest speakers, and field trips. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN310
Construction Equipment
Horizontal and vertical materials handling. Earthmoving, excavation, cranes. Comparative economics of equipment; depreciation. Concrete forming and placement. Prereq: 32BLTN107, 32ARTN289, 32CVTN242, 32IET121. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN318
Construction Methods
Investigation of perimeter enclosure systems and interior finishes. Building code review and applications. Group lab projects, film, guest speakers, and field trips. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32BLTN351
Building Systems I
Analysis and design of advanced mechanical systems for buildings, Passive and Active Solar heating systems. Solar powered cooling systems. Direct heating and cooling systems. District heating and cooling systems, Ice storage systems, Cogeneration systems. Prereq: 32ARTN572. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32BLTN531
Building Systems II

H=University Honors course.
Building Trades Technology

32BLTN533  Building Systems III
Cost estimation and economic evaluation of building systems. Estimation of seasonal energy consumption. Life cycle costing. An analysis of the factors effecting the selection of Mechanical, Electrical and Plumbing systems for buildings. Prereq: 32BLTN532. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Cabinet and Furniture Making

32CBMK001  Cabinet/Furniture Construction IA
Introduction to basic construction techniques and woodworking tools, applying this knowledge to construct a Shaker side stand table measuring 18"x18"x27". The student then constructs another table project from the Pembroke, coffee or occasional category learning leg and frame construction and edging techniques. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK002  Cabinet/Furniture Construction IB
Continuation of Furniture Construction I. Prereq: 32CBMK001. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK003  Cabinet/Furniture Construction IC
Continuation of Furniture Construction I. Prereq: 32CBMK002. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK004  Cabinet/Furniture Construction IIA
The student constructs two projects from the following furniture categories: bookcases, display and corner cabinets, and sideboard cabinets, learning joint and door construction techniques. Students must repeat this course for a total of 12 cr. hrs. before registering for Cabinet/Furniture Construction III. Prereq: 32CBMK003. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

32CBMK005  Cabinet/Furniture Construction IIB
Continuation of Furniture Construction II. Prereq: 32CBMK004. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

32CBMK006  Cabinet/Furniture Construction IIC
Continuation of Furniture Construction II. Prereq: 32CBMK005. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

32CBMK007  Cabinet/Furniture Construction IIIA
The student constructs two projects from the following furniture categories: chest of drawers and desk, office, writing and lectern, learning drawer construction and hardware installation. This series must be repeated for a total of 18 cr. hrs. before registering for Cabinet/Furniture Construction IV. Prereq: 32CBMK006. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK008  Cabinet/Furniture Construction IIIB
Continuation of Furniture Construction III-A. Prereq: 32CBMK007. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK009  Cabinet/Furniture Construction IIIC
Continuation of Furniture Construction III-A. Prereq: 32CBMK008. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK010  Cabinet/Furniture Construction Drawing I
Beginning drawing (use of drafting tools, orthographic projection, sections, dimensioning, and lettering), construction details and embellishments, joinery considerations, furniture proportions, laying out patterns (actual patterns to be made in wood shop), complete furniture drawing. BoK: NA. Credit Level: U. Credit Hrs: 2.00

Cabinet and Furniture Drawing

32CBMK011  Cabinet/Furniture Construction Drawing I
Continuation of Furniture Construction Drawing I. Prereq: 32CBMK010. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK012  Cabinet/Furniture Construction Drawing I
Continuation of Furniture Construction Drawing. Prereq: 32CBMK011. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK021  Cabinet/Furniture Construction IVA
The student constructs two projects from the following furniture categories: blanket chest, pedestal tables and pencil post beds, learning dovetail and box joint construction and lathe turning. This series must be repeated for a total of 18 cr. hrs. Prereq: 32CBMK009. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK022  Cabinet/Furniture Construction IVB
Continuation of Furniture Construction IV. Prereq: 32CBMK021. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK023  Cabinet/Furniture Construction IVC
A continuation of Cabinet/Furniture Construction IV-A & B. The student constructs two projects from the following furniture categories: blanket chest, pedestal tables and pencil post beds, learning dovetail and box joint construction and lathe turning. Prereq: 32CBMK022. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

32CBMK030  Wood Working for Crafters I
This course is for beginners and experienced woodworkers. Building projects for personal use, gifts or to sell. The first class project, a set of shaker boxes. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK031  Woodworking for Crafters II
Continuation of Woodworking for Crafters I. Prereq: 32CBMK030. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK032  Woodworking for Crafters III
Continuation of Woodworking for Crafters II. Prereq: 32CBMK031. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK040  Windsor Chair Construction I
This course is devoted to building one project, a family heirloom, the Windsor Chair. Intermediate skill level required. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK041  Windsor Chair Construction II
Continuation to Windsor Chair I. Prereq: 32CBMK040. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK042  Windsor Chair Construction III
Continuation of Windsor Chair II. Prereq: 32CBMK041. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK070  Wood Technology: Understanding Wood
Wood anatomy (also basic forestry and tree framing), wood species and uses, lumbering (self and industrial), drying (self and industrial), lumber grading and wood products, glues, wood coloration and color shifts, joinery theory, shop safety (dust collection, toxic woods, hearing protection), fasteners and hardware. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK071  Woodworking Techniques
Machinery alignment and adjustment, sharpening, clamping and

H=University Honors course.
Cabinet and Furniture Making

32CBMK071 Woodworking Techniques
clamping jigs, wood bending, veneering and lamination, lathe turning basics, shaping and molding, blades, cutters, and bits. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK072 Wood Finishing
Surface preparation (sanding and scraping), staining (oil, alcohol, water, gel, dye chemicals), wipe-on finishes, brush-on finishes, spray-on finishes, waxes, and finish care. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK073 Wood Turning
This class is for the beginner interested in wood turning. The student will be introduced to the basics with a discussion of lathes, tools and tool sharpening. Then learning techniques needed by the furniture maker to produce table legs and chair parts and art wood turning such as bowls. The student will make a small project incorporating the skills and knowledge learned. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK074 Wood Turning I-B
Continuation of Wood Turning I (32CBMK073). BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK075 Wood Carving I
A complete overview of wood carving. Student will learn everything from sharpening techniques, use and function of carving tools, proper layout of projects, to physically carving projects in relief and in the round. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK076 Wood Carving II
Continuation of Wood Carving I. Prereq: 32CBMK075. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK077 Wood Carving III
A continuation of Woodcarving I, II. A complete overview of wood carving. Student will learn everything from sharpening techniques, use and function of carving tools, proper layout of projects to physically carving projects in relief and in the round. Prereq: 32CBMK076. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CBMK078 Wood Turning I-C
Continuation of Wood Turning I-A (32CBMK073). BoK: NA. Credit Level: U. Credit Hrs: 2.00

Civil Engineering

32CE121 Surveying I
Introduction to surveying. Determining distances, elevations, bearing and azimuths; systematic and random errors in measurements. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE122 Surveying II
Continuation of 30CE121. Concept of traverse and related calculations. Adjustment of traverses by compass rule and method of least squares. Area calculations. Introduction to the theory and practical applications of the State Plan Coordinate systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE223 Surveying III
Methods and computations of route surveys; topographic surveys; circular, spiral and vertical curves. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Environmental Engineering

32CE304 Environmental Engineering I
Analysis of precipitation data and stream flow records for water supply purposes and storm sewer design. Application of principles of hydraulics, hydrology, chemistry, biology, and engineering to the designing of water supply and waste-water disposal systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE305 Environmental Engineering II
Continuation of 30CE304. Offered every third year. An introductory water quality modeling course is given. It begins with material related to the student's gained knowledge from Environmental Engineering I. An introduction to air quality, and solid waste management is also provided. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE311 Construction Materials and Soils I
General characteristics, physical properties, methods of manufacturing and mixing, and uses of construction materials. Concepts of soils as they apply to engineering problems. Subsurface investigations, classifications, permeability, consolidation, and shear strength. BoK: NA., QR. Credit Level: U. Credit Hrs: 3.00

32CE312 Construction Materials and Soils II
Continuation of 30CE311. Concepts of soils as they apply to engineering problems. Subsurface investigations, classifications, permeability, consolidation and shear strength. BoK: NA., QR. Credit Level: U. Credit Hrs: 3.00

32CE313 Construction Materials and Soils III
Continuation of 30CE312. Soil structure and clay minerals, soil hydraulics, lateral earth pressures, bearing capacity and slope stability, design of retaining walls and footings. BoK: NA., QR. Credit Level: U. Credit Hrs: 3.00

32CE341 Applied Strength of Materials I

32CE342 Applied Strength of Materials II
Continuation of 30CE341. Laboratory tests of metals, timber, plastics, ceramics, and other structural materials. Measurement and experimental techniques. BoK: NA., QR. Credit Level: U. Credit Hrs: 3.00

32CE343 Hydraulic Engineering I
Applications of fluid mechanics. Fluid force and velocity measurement. Design and operation of closed conduit systems. Pumps and turbomachinery. BoK: NA., QR. Credit Level: U. Credit Hrs: 3.00

32CE344 Hydraulic Engineering II
Continuation of 30CE343. Open channel hydraulics. General theory and practical applications of uniform and gradually varied flow. Selected unsteady flow problems. Laboratory demonstration of open channel flow. Discussion of principles of turbomachinery. BoK: NA., QR. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Civil Engineering

32CE344
Hydraulic Engineering II
Continuation of 30CE343. Open channel hydraulics. General theory and practical applications of uniform and gradually varied flow. Selected unsteady flow problems. Laboratory demonstration of open channel flow. Discussion of principles of turbomachinery. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE414
Introduction to Transportation Engineering
Planning, building, and operating a transportation system that best serves the community. What community leaders and planners need to know about traffic and transportation to make good decisions. Transportation financing, Environmental considerations. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE415
Highway Transportation
Traffic engineering operations, safety, laws and ordinances. Proper design of roads and streets for safety and capacity. Managing a transportation system. Parking and terminal concerns. The role of mass transportation in the community. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE416
Building Transportation Facilities
Property acquisition and relocation. Cost-effective designs, construction techniques and standards. Also, other forms of transportation -- rail, air and water -- and their contribution to the total transportation system. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE420
Structural Design I
(Formerly 30CE471.) Design of metal structures. Tension and compression members, beams, trusses, connections. Plastic design of steel structures. Timber design. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE421
Structural Design II

32CE422
Structural Design III
Reinforced concrete design-ultimate strength. Flexure and axial loads. Shear and torsion. Development of reinforcement. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CE423
Structural Design IV

32CE441
Structural Analysis I
Statically determinate beams, frames, cables and arches, influence lines. Deflection analysis. Energy methods. Computational techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CE442
Structural Analysis II

32CE499
Independent Study in Civil Engineering
Please complete and submit an Independent Application Form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

Computer Engineering Technology

32CET102
Elements of CET
This course provides essential background information for the study of computer engineering technology, introduces methodologies of structured problem solving, and introduces basic programming concepts. Teamwork is integral to the course. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32CET131
Computer Engineering Technology I
This course integrates laboratory experiments with lecture focusing on embedded systems applications to teach the basics of computer programming beginning with procedural techniques using the structural programming language C. This course introduces the tools used by EETs and CETs in industry. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CET132
Computer Engineering Technology II
This course continues to use the computer language C to teach data structures, and then, near the end of the course, switches to C++ to introduce objects and object-oriented programming. Data structures and the structured programming techniques associated with them are the foundation for well-designed, maintainable, embedded-system applications. This course integrates laboratory experiments with lecture. Prereq: 32CET131. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CET133
Computer Engineering Technology III
This course completes the study of object-oriented programming with the computer language C++ by thoroughly covering encapsulation, abstraction, inheritance, and polymorphism. This course integrates real-world laboratory experiments with lecture. Prereq: 32CET132. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CET204
Computer Interfacing
An examination of computer interfacing techniques for real-world applications. Topics include: computer bus interfacing to temperature, and displacement sensors, and displays. Prereq: 32ELTN242. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CET214
Computer Interfacing Laboratory
Interfacing and sensor projects to illustrate lecture concepts. Prereq: 32ELTN242. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET400
TOPICS OF PROGRAMMABLE LOGIC DEVICES
The study and application of programmable logic devices. Specifically the use of PALs, PLDs, and FPGA's. Prereq: 32ELTN242. BoK: NS. QR. Credit Level: U. Credit Hrs: 3.00

32CET402
Computer Security
An introduction to computer and network security. Topics include: kinds of security attacks, methods of defense, encryption and decryption, program, operating system and network security. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32CET410
TOPICS OF PROGRAMMABLE LOGIC DEVICES LABORATORY
Design and implementation projects to demonstrate lecture concepts. Prereq: 32CET400. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET412
Computer Security Laboratory
Exercises and projects to illustrate lecture concepts. Coreq: 32CET402. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET440
TOPICS OF IP ROUTERS
An introduction to the management of IP networks using routers. Specific topics: basic network design, selecting equipment, routing protocol selection, configuration and security. BoK: QR. Credit Level: U.
Computer Engineering Technology

32CET440
TOPICS OF IP ROUTERS
Credit Hrs: 3.00

32CET441
TOPICS OF WEB-BASED CONTROL
An introduction to real-time control via the world wide web. Explore the use of web-based applications to control devices across a network. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32CET445
COMPUTER NETWORK ADMINISTRATION
Examination of network administration tasks in mixed system environment. Topics include design, performance/optimization, security and mixed protocol environments. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CET450
TOPICS OF IP ROUTERS LABORATORY
Design and implementation projects to demonstrate lecture concepts utilizing a popular commerical router. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET451
TOPICS OF WEB-BASED CONTROL LABORATORY
Design and implementation projects to demonstrate lecture concepts. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CET455
COMPUTER NETWORK ADMINISTRATION LAB
Exercises and projects to illustrate lecture concepts. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Chemistry

32CHEM021
Introduction to Chemistry I
Introduction to the principles of chemistry, with applications and laboratory activities. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32CHEM022
Introduction to Chemistry II
The periodic table, chemical bonding, chemical equations, stoichiometry, thermochemistry. Prereq: 32CHEM021. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32CHEM131
Chemical Technology I
Elementary principles of chemical analysis including use and handling of chemical glassware, beginning qualitative and quantitative analysis, data handling, laboratory notebook development, report writing. Coreq: 32CHEM171. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00-6.00

32CHEM132
Chemical Technology II
Continuation of 32-035-131 concentrating on gravimetric and volumetric analysis, use of the analytical balance and the pH meter. Additional exercises in developing notebook and report writing skills. Prereq: 32CHEM131. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00-6.00

32CHEM133
Chemical Technology III
Continuation of 32-035-132 concentrating on gravimetric and volumetric analysis and introductory instrumental analysis including computer applications in data analysis. Prereq: 32CHEM132. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00-6.00

32CHEM161
Life Science I
This is the first of two courses in the life sciences. It is an introduction to human anatomy and physiology. It is designed to support later studies in biochemistry and bioanalytical chemistry, and to help prepare students for co-op and work assignments in biomedical and pharmaceutical industry laboratories. BoK: NS. Credit Level: U. Credit Hrs: 2.00

32CHEM162
Life Science II
This is the second of two courses in the life sciences. It is an introduction to human cellular biology. It is designed to support later studies in biochemistry and bioanalytical chemistry, and to help prepare students for co-op and work assignments in biomedical and pharmaceutical industry laboratories. Prereq: 32CHEM161. BoK: NS. Credit Level: U. Credit Hrs: 2.00

32CHEM171
Chemical Technology Orientation I
An orientation to the chemical technology profession and introduction to necessary academic and technical skills. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CHEM172
Chemical Technology Seminar I
This course consists of a collection of seminars designed to introduce freshman students to the chemistry-based industry, career opportunities, lectures by practitioners and several faculty. Prereq: 32CHEM131, 32CHEM171. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CHEM174
Fundamentals of Chemistry
A study of chemical reactions, stoichiometry with emphasis upon inorganic reactions and thermodynamics. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM204
Chemical Technology Seminar II
This course consists of a collection of seminars designed to encourage second year chemical technology majors to gain more exposure to the chemistry-based industry, career opportunities, lectures by practitioners and faculty. Students are also expected to continue to work on their e-portfolios used by the college. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CHEM231
Preparation and Analysis of Organic Compounds I
An introduction to the preparation and analysis of organic compounds concentrating on basic skills needed to synthesize and characterize simple organic compounds. Prereq: 32CHEM133. Coreq: 32CHEM241. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM232
Preparation and Analysis of Organic Compounds II
Continuation of 32-035-231 with emphasis on classes of organic reactions and use of chemical instrumentation to analyze compounds produced. Prereq: 32CHEM231. Coreq: 32CHEM241. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM233
Preparation and Analysis of Organic Compounds III
Continuation of 32-035-232 emphasizing contemporary methods of preparation of organic compounds and more rigorous use of chemical instrumentation for characterization. Prereq: 32CHEM232. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM241
Chemical Technology IV
Continuation of 32CHEM133 concentrating on instrumental analysis including UV-Vis-IR spectrophotometry, chromatography, and additional computer applications. Prereq: 32CHEM133. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM250
Nuclear Magnetic Resonance, Principles and Applications I
Nuclear magnetic resonance (NMR) is the premier investigative tool for structure determination in chemistry, biology (biochemistry) and medicine. This course is designed for the student early in their study of

H=University Honors course.
Biochemical Technology I
Concentrates on contemporary biochemical laboratory skills and techniques as applied to proteins. Prereq: 32CHEM233. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM311
Biochemical Technology I
Concentrates on contemporary biochemical laboratory skills and techniques as applied to proteins. Prereq: 32CHEM233. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM312
Biochemical Technology II
Continuation of 32-035-311 emphasizing laboratory skills and techniques as applied to genetic material. Prereq: 32CHEM311. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM313
Biochemical Technology III
Continuation of 32-035-312 emphasizing laboratory skills and techniques as applied to metabolic cycles. Prereq: 32CHEM312. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM315
Biochemistry of Physiologically Active Compounds
This course will apply biochemical principles and technology to the study of physiologically active indigenous and exogenous compounds, including foods, drugs, medicinals, environmental factors and metabolites. Students will study the structure, function, metabolism and physiological effects of compounds. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM321
Chemical Instrumentation I
Concentrates on the construction of chemical instrumentation examining mechanical, optical, and electronic components. Prereq: 32CHEM242. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM322
Chemical Instrumentation II

32CHEM332
Chemical Instrumentation III
Continuation of 32-035-322 concentrating on instrument operation. Prereq: 32CHEM322. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM330
Fundamentals Of Food Science
This is an introductory course in basic chemistry to develop understandings on nomenclature, and physical and chemical processes related to foods and food preparation. It includes an overview of topics such as: atomic and molecular structure, PH, concentration units, bonding and the chemical structures of carbohydrates, fats, proteins, and water. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM331
Fundamentals of Food Chemistry I
An introductory course on carbohydrates and lipids, including an understanding of ingredient functionalities in food preparation and final product characteristics. Prereq: 32CHEM330. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM332
Fundamentals of Food Chemistry II
A continuation of Fundamentals of Food Chemistry I with emphasis upon proteins and food additives. Prereq: 32CHEM331. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM333
Fundamentals of Food Chemistry III
This course is a continuation of the study of foods, their composition, properties and behavior, and the changes that occur as they are prepared, processed and stored. The student will continue to build their understanding of functional ingredients and food additives. Laboratory work emphasized good instrumental and analytical techniques in examining food properties and reactions. Prereq: 32CHEM332. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM335
Biochemistry for Food Science
Introduction to biochemistry and bio-organic chemistry, including the structure and properties of organic compounds and biomolecules that

H—University Honors course.

Applications of molecular spectroscopy with respect to UV-VIS, fluorescence, IR and FTIR spectroscopy including theory, sampling methods and spectral interpretation. BoK: NS. Credit Level: U. Credit Hrs: 3.00-5.00

32CHEM375 Applications of Surfactants and Lipids
The course offers an inclusive survey of surfactants and lipids. It provides the fundamentals of the solution, colloidal and interfacial properties of surfactant and lipid systems. It also provides a detailed description of analytical and structural characterization techniques. Prereq: 32CHEM233. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM376 Modern Industrial Microscopy
This class will review a wide range of microscopy techniques and their applications to modern industrial chemistry; the impact to industries such as pharmaceuticals, forensics, microbiology, computer manufacturing, consumer products, and polymer research will be addressed. The advances in digital images acquisition and analysis that have made microscopy increasingly quantitative and more broadly applicable will be a major focal point. Consisting of lecture and lab exercises, with an emphasis on light microscopy, the course will provide both comprehensive insight and hands-on experience. The content will be flexible to accommodate students interests, especially in cases of reviewing/preparing for cooperative experiences. Prereq: 32CHEM242. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM377 POLYMER CHEMISTRY
The methods of polymer synthesis and characterization will be studied in three lecture hours and three laboratory hours per week. Prereq: 32CHEM233. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM378 INTERMEDIATE PREPARATION AND ANALYSIS OF ORGANIC COMPOUNDS
The course will include the study of the preparation, analysis and nomenclature of the following types of compounds: amines, heterocyclics, polynuclear aromatics, and phenolics. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM379 Food Chemistry: Structure And Reactions
This is a course about the chemistry behind food and cooking. In this course we will study the structure, properties, and reactions of food and its components. We will examine the four fundamental food molecules, following them through classes of foods including dairy products, fruits and vegetables, meats, bread, and sweets. We will explore the molecular basis of the development of flavor during cooking. We will also explore the chemical reactions in food driven by bacteria and yeasts. This course requires that you have passed Prep & Analysis of Organic Compounds III. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM390 Professional Ethics in Technology
Exploration and research of ethical issues in applications of technology. Various points of view are examined to analyze their assumptions, impact and implications. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32CHEM399H From Dr. Seuss to Wall Street: Interdisciplinary Look at the Environment
This course is an examination of the cycles and life support systems of the environment, and the influence of human activity on these systems. The course will consider specific environmental issues connected to energy, air, water and living things from multiple points of view with an interdisciplinary perspective. BoK: NS., HP. Credit Level: U. Credit Hrs: 3.00
Chemistry

32CHEM401
SENIOR PROJECT I
Identification and solution of a defined problem from the field of chemical technology. Culminates with production of a formal report. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32CHEM402
SENIOR PROJECT II
A continuation of Senior Project I (32CHEM401). BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CHEM403
Senior Project III
A continuation of Senior Project II. Prereq: 32CHEM402. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32CHEM411
BIOCHEMISTRY I
Concentrates on contemporary biochemical laboratory skills and techniques as applied to proteins. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM412
BIOCHEMISTRY II
A continuation of Biochemistry I (32CHEM411) emphasizing laboratory skills and techniques as applied to genetic material. Prereq: 32CHEM411. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM413
BIOCHEMISTRY III
A continuation of Biochemistry II (32CHEM412) emphasizing laboratory skills and techniques as applied to metabolic cycles BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM414
The Biochemical Basis of Nutrition
A study of the biochemical basis of nutrition, including the molecular structure-function relationships of -energy½ metabolism, food nutrients including carbohydrates, fats and proteins, health and disease states. This is a course for Chemical Technology majors or those with a chemistry background including organic chemistry. Prereq: 32CHEM232. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM420
Food Processing Technologies
An overview of food production systems and scale up, principles of food processing and packaging technologies. Prereq: 32CHEM333. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32CHEM421
Food Formulation & Ingredient Functionality
An overview of food formulation practices and principles from gold standard to prototype to finished product. Including cuisine knowledge, ingredient usage, cooking techniques, food safety, and manufacturing issues. Other areas covered include how new product ideas are derived from a food trend, consumer learning, and market analysis. Prereq: 32CHEM420. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CHEM422
Senior Project I
A capstone experience requiring students to define a problem or creative need in the food industry, to develop a Project Plan to solve the problem or meet the creative need, and to present the Project Plan in writing and through an oral presentation, including both theoretical and practical/hands-on applications. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM423
Culinary Senior Project II
A continuation of Senior Project I. Students will execute their project plans, and provide a written final report and oral presentation of results. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Chemistry

32CHEM424
NUTRITIONAL BIOCHEMISTRY
Introduction to the biomolecular basis of nutrition, including micro and macronutrients, energy metabolism, digestion and absorption, diet, and health and disease rates. This course is designed for Culinary Arts and Science majors. Prereq: 32CHEM333. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM430
Instrumental Analysis
This course will introduce the student to the basic concepts of instrumental methods of chemical analysis. This project-based course will provide the student with an opportunity to build on good laboratory techniques, and apply the theory of chemical instrumentation, and quantitative problem skills to solve typical real-life problems in the laboratory. The content will be flexible to accommodate a broad range of student interests, including the areas of environmental and biotechnology applications. BoK: NS. Credit Level: U. Credit Hrs: 5.00

32CHEM470
Environmental Laws and Regulations
The course is a comprehensive review of the major federal laws and regulations. The laws and regulations covered include: SARA Title III and Emergency Planning and Community Right-to-Know Act (EPCRA); Toxic Substances Control Act (TSCA); Clean Air Act; OSHA Law and Regulations; National Environmental Policy Act (NEPA); Hazardous Wastes/RCRA; Underground Storage Tanks; and Comprehensive Environmental Response Compensation and Liability Act/Superfund. In addition, the course will cover Potential Environmental Liabilities, Handling Inspection and Environmental Auditing. BoK: SE. Credit Level: U. Credit Hrs: 4.00

32CHEM471
The Chemical Process Industry
A review of the major manufacturing processes in the chemical process industry. Prereq: 32CHEM470. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32CHEM472
Environmental Laws and Regulations II
A continuation of Environmental Laws and Regulations I. Prereq: 32CHEM470. BoK: SE. Credit Level: U. Credit Hrs: 4.00

32CHEM499
Special Topics in Chemical Technology
Current topics of interest in chemical technology. Topics selected from surface, polymer, and inorganic chemistry, statistical and computer applications, and other timely areas of interest. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

Chemical Engineering

32CHTN224
Chemical Engineering Technology I
(Lab. 234.) Process variables, steady-state material balances, gas laws, single and multiple systems, basic thermodynamics and energy balances. Laboratory experiments cover gas laws, vapor pressure, liquid-liquid extraction, chemical equilibrium, and boiling point elevation. Coreq: 32CHTN234. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32CHTN225
Chemical Engineering Technology II
(Lab. 235.) Fluid flow, heat transfer, distillation, absorption, extraction and drying. Laboratory experiments cover phase diagrams, heat of reaction, binary liquid-vapor equilibrium, statistical process control, distillation, fluid flow and flow measurements, heat transfer and heat exchangers. Coreq: 32CHTN224. Coreq: 32CHTN235. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

32CHTN234
Chemical Engineering Technology I Laboratory
Laboratory experiments involving heat transfer, fluid flow, filtration, etc. Designed to complement lecture material in Chemical Engr Tech. I.
### College of Applied Science

#### Chemical Engineering

**32CHTN234**  
**Chemical Engineering Technology I Laboratory**  
BoK: NA. Credit Level: U. Credit Hrs: 1.00

**32CHTN235**  
**Chemical Engineering Technology II Laboratory**  
Laboratory experiments involving the use and calibration of industrial measuring equipment. Design to complement lecture material in Chemical Engr Tech II. Prereq: 32CHTN225. BoK: NA. Credit Level: U. Credit Hrs: 1.00

**32CHTN271**  
**CHEMICAL ENGINEERING AND PROCESS FUNDAMENTALS**  
Introduction to basic concepts of chemical engineering principles needed to solve chemical process problems, including engineering principles understanding of engineering problem-solving styles and approaches to produce optimum results, and specific industrial examples of chemical processes and phenomena and their relationships to chemical engineering principles. Prereq: 32CHEM133, 32MATH179. BoK: NA. Credit Level: U. Credit Hrs: 4.00

### Construction Management

**32CM101**  
**Construction Seminar I**  
Seminars to introduce freshman students to career opportunities in design, construction and facilities management; lectures by practitioners and several faculty members, student papers. BoK: NA. Credit Level: U. Credit Hrs: 1.00

**32CM102**  
**Construction Seminar II**  
Continuation of Construction Seminar I. Prereq: 32CM101. BoK: NA. Credit Level: U. Credit Hrs: 1.00

**32CM272**  
**Construction Documents and Quality Control**  
Relationship of design to construction; specifications to field procedures; testing, inspections, quality management; legal requirements. Prereq: 32CM402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32CM276**  
**Construction Safety Management**  
Safety in industry and construction, methods of conducting operations in close proximity to potential hazards, legal and insurance factors, accident case studies. Job site illustrated discussions. Prereq: 32BLTN108. BoK: SE. Credit Level: U. Credit Hrs: 3.00

**32CM301**  
**Construction Management I**  
Overview of the Construction Management sequence, interrelationships of the parties involved in various types of construction contracts, office procedures, personnel, business strategies, payments, affidavits, liens, etc. Prereq: 32BLTN107, 32ENGL103, 32MATH244. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32CM301H**  
**Leadership and Teamwork From Within**  
The objective of the course is to examine the integration of humanities, leadership and teamwork to build on management concepts. Leadership in organization can be established in many different ways. A leadership that focuses on needs of individuals within organization for the benefit of the team has a lasting impact that promotes the organization well beyond other leadership styles. The course examines leadership traits and skills and their application to facilities management. Prereq: 32PD132. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

**32CM401**  
**Construction Management I**  
Overview of the Construction Management sequence, interrelationships of the parties involved in various types of construction contracts, office procedures, personnel, business strategies, payments, affidavits, liens, etc. Prereq: 32ENG103, 32BLTN107, 32MATH244. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32CM402**  
**Construction Management II**  
On-site operations, role of the superintendent, productivity, methods improvement, equipment scheduling, materials handling, computer modeling, time lapse and video photography. Prereq: 32CM401, 32ARTN289. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32CM473**  
**Special Construction Management Projects**  
Variable cr. Independent study of subjects chosen by the student with the approval of Department Head. BoK: NA. Credit Level: U. Credit Hrs: 1.00-9.00

**32CM473H**  
**Honors Special Topic Management Project**  
The course is the Honors version of Special Topic Management Project offered to our CM students in the Honors Program. BoK: NA. Credit Level: U. Credit Hrs: 1.00-9.00

**32CM503**  
**Construction Management III**  
Comparative building system analysis. Product selection, fabrication and erection methods. Student project evaluates systems. Evaluation. Lab will study decision support systems for construction projects. Prereq: 32CM402, 32MATH371. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

**32CM504**  
**Construction Management IV**  
Industrial construction, particular problems of building in a manufacturing or processing environment. Student project addresses design, scheduling and economic requirements for a particular site. Prereq: 32CM503, 32CM581. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32CM505**  
**Leadership and Decision Making**  
Leadership traits and skills and their application to facilities management. Prereq: 32PD132. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

**32CM511**  
**Scheduling I**  
Flow of labor and material toward specified goal, weather, trade characteristics, material availability considered in designing bar charts, graphs and CPM schedules. Prereq: 32ARTN289, 32CM402, 32BLTN310, 32IET321. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32CM512**  
**Scheduling II**  
Computerized scheduling of more complex PERT and critical path problems. Prereq: 32CM511. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32CM555**  
**Sustainable Construction and LEED**  
The course discusses how LEED project certification influences the overall construction project. Topics will include LEED certification techniques for sustainable sites, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, and innovation and techniques and design. Prereq: 32ARTN372, 32ARTN373, 32ARTN573. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32CM571**  
**Construction Law**  
Contract documents -- legal aspects, formation of contracts and interpretations; subcontractor and agency relationship -- legal pitfalls; forfeiture -- determination and frustration; legal remedies and remedies in equity; damages and restitution; arbitration, liens, bonds, indemnities case studies in the above described areas of construction law. Prereq: H=University Honors course.  
### Construction Management

**32CM571**  
Construction Law  
32CM402. BoK: SE. Credit Level: U. Credit Hrs: 3.00

**32CM572**  
Construction Documents and Quality Control  
Relationship of design to construction; specifications to field procedures; testing, inspections, quality management; legal requirements. Prereq: 32CM402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32CM575**  
Senior Special Project  
Each student is required to design in detail a plan of contract execution from project generation to owner's use of the building, estimating, scheduling, project costing, etc. Prereq: 32CM504, 32CM512. BoK: NA. Credit Level: U. Credit Hrs: 5.00

**32CM576**  
Senior Special Project II  
Continuation of 32CM575 with emphasis on resource management, pre-construction services and post construction (facilities). Prereq: 32CM575. BoK: NA. Credit Level: U. Credit Hrs: 5.00

**32CM581**  
Construction Financing & Strategy Planning  

**32CM592**  
Project Costing  
Advanced estimating procedures, time value of money, life-cycle costing; cash flow and controls, billing systems, holdbacks, incentive and penalties, short-term financing. Estimating/costing project for a building. Prereq: 32CM511, 32CM581, 32ARTN289. BoK: QR. Credit Level: U. Credit Hrs: 3.00

### Communication

**32COMM172**  
Fundamentals of Speech Communications  
An introduction to speech composition, delivery, audience analysis, and handling of audiovisual equipment. BoK: HU. Credit Level: U. Credit Hrs: 3.00

**32COMM192**  
Speeches That Changed History: Words From Warmongers and Peacemakers.  
Reading speeches by Lincoln, Twain, Gandhi, Churchill, et. al. Student will discover the power of language and rhetoric to change history. BoK: HU. Credit Level: U. Credit Hrs: 3.00

**32COMM341**  
Managerial Communications  
A study of process of communication focusing on the purpose of communicating and the best strategy for accomplishing that purpose in national and international settings. BoK: HU. Credit Level: U. Credit Hrs: 3.00

**32COMM371**  
Technical and Professional Presentations  
Oral presentation of technical information supplemented by analysis of interpersonal and group communication. Prereq: 32COMM172. BoK: HU. Credit Level: U. Credit Hrs: 3.00

**32COMM382**  
Graphics I  
An intensive, comprehensive course in computer graphics: it encompasses the conceptual, technical and historical aspects of graphics design and visual presentation in the digital domain. We will learn the principles of design integration of images, graphics and text through reading, discussion, critique and practice. Prereq: 32ENGL103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

**32COMM383**  
Communication in the Modern World  
Examines the technical, theoretical and cultural constructs that define contemporary communication media. Students explore predominant content-areas and genres of cyberspace media, study the foundations of media theory, and learn to apply a critical lens to the representation of identity and diversity in media. BoK: HU. Credit Level: U. Credit Hrs: 3.00

**32COMM384**  
Graphics II  
Building on topics covered in Graphics I, students will extend their knowledge and practice of creating professional level graphic images and typographic in multi-page compositions. Emphasis will be placed on type as images, types as experiment and on the use of photographic images and stock graphics two creative innovative, eye-catching brochures, booklets and professional materials for technology industries and businesses. Students will build a portfolio of professional print media while acquiring skills in Adobe Photo- Shop and InDesign. Prereq: 32COMM382. BoK: HU. Credit Level: U. Credit Hrs: 3.00

**32COMM385**  
Intercultural Business Communication  
This course examines the characteristics of cultural differences that alter communication symbols and meaning for international business activities. Prereq: 32ENGL101, 32ENGL102, 32ENGL103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

**32COMM388**  
Communication Studies in New Media  
An overview of the theoretical and cultural constructs that define new communication media, interact ive moving images, and simple algorithm-based comp uter graphics. We will learn how these media inform, reproduce, or displac e cultural categories that permeate our world. During this course, student s will 1) examine the cross-cultural categories that at production and use of the visual image of new m edia, 2) explore montage, the figuration of multiple image fragments and sequences to create movement and cinematic perception, and 3) critical explorations on the development and spread of algorithm-based language. Prereq: 32ENGL103. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

**32COMM480**  
Science and Technology in the Popular Media  
Examines the representation of science and technology in media and popular culture, including print, film and cyberspace. Students will explore through readings the dominant cybernetic and neo-Darwinian discourses that shape popular visions of technology and will consider their critical alternatives. Prereq: 32ENGL103. BoK: SE. Credit Level: U. Credit Hrs: 3.00

**32COMM484**  
Trends in Global Communications  
The emergence of a "geoeconomy" and the pursuit of global culture based on technology and commercial discourse are having mixed results on the local scale, including adaptation of resistance. Global communications is approached from three comprehensive perspectives: 1) media communication and international regulation of info flow, 2) the cultural politics of language, and 3) postcolonial responses to globalization of commodities. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

**32COMM485**  
E-Portfolio Production & Information Graphics  
Course participants produce functional, engaging, stylish, and self-reflective e-portfolios of their undergraduate work as part of the broader study of interactive Web design. The course overview the deep and

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H-University Honors course.  
Independent Study. Credit Level: G. Credit Hrs: 3.00-9.00

Innovation in construction is discussed with cases. Credit Level: G. Credit Hrs: 3.00

In-depth examination of problems in construction and their implication. Credit Level: G. Credit Hrs: 3.00

Investigation of construction materials and processes and its impact in the design/construct/maintain continuum. A systematic evaluation of construction resources. Prereq: 32CM512, 32CM582, 32ACCT341. Credit Level: G. Credit Hrs: 3.00

Planning and Control of Construction Firms
A focused study of strategic planning in construction firms as distinct from operational planning. Prereq: 32CM511, 32CM512, 32CM582. Credit Level: G. Credit Hrs: 3.00

Facilities Planning and Value Analysis
Planning and managing the design of facilities and value analysis of projects. Prereq: 32CM511, 32CM581, 32ECON386. Credit Level: G. Credit Hrs: 3.00

Advanced Construction Costing
Costing strategies and its impact on planning, acquisition and control of construction resources. Prereq: 32CM512, 32CM582, 32ACCT341. Credit Level: G. Credit Hrs: 3.00

International Construction
Examination of international construction and impact of global economy on construction firms. Credit Level: G. Credit Hrs: 3.00

Analysis of Legal Issues in Construction
Exploration of legal and regulatory environment and its impact in the construction process. Credit Level: G. Credit Hrs: 3.00

Construction Method and System
Investigation of construction materials and processes and its impact in the design/construct/maintain continuum. A systematic evaluation of construction materials in constructability is also presented. Credit Level: G. Credit Hrs: 3.00

Seminar in Construction Management
In-depth examination of problems in construction and their implication. Innovation in construction is discussed with cases. Credit Level: G. Credit Hrs: 3.00

Research in Construction Management
Independent study. Credit Level: G. Credit Hrs: 3.00-9.00

Research in Construction Management
Independent study. Credit Level: G. Credit Hrs: 3.00-9.00

H=University Honors course.
### Computer Science Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>BoK: NS. QR. Credit Level: U. Credit Hrs: 3.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>32CSTN147</td>
<td>Visual Programming II</td>
<td>This course is a continuation of Visual Programming I. Students will learn to display graphics, access databases, and communicate with other Windows applications, design objects and ActiveX controls using Visual Basic. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00</td>
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</tr>
<tr>
<td>32CSTN181</td>
<td>Introduction to Operating Systems</td>
<td>Course introduces the objectives and functions of a computer operating system. Microsoft Windows, UNIX, and LINUX are studied and compared. BoK: NS. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32CSTN183</td>
<td>Desktop Publishing</td>
<td>Course is designed to introduce students to the electronic publishing process including writing, assembly, and design as applied to business documents. The technical and creative aspects of electronic publishing are examined. Microcomputer desktop publishing software such as Adobe in Design is used to illustrate concepts. BoK: NS. Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
</tr>
<tr>
<td>32CSTN215</td>
<td>Directed Study - Computer Science</td>
<td>This course is designed for students who require individualized instruction in Computer Science. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
</tr>
<tr>
<td>32CSTN216</td>
<td>Directed Study - Computer Science</td>
<td>This course is designed for students who require individualized instruction in Computer Science. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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</tr>
<tr>
<td>32CSTN221</td>
<td>Object Oriented Programming with Java I</td>
<td>This course will introduce object-oriented design and programming using Java. Students will learn all aspects of the object-oriented design methodology including Inheritance, Encapsulation and Polymorphism and apply them to typical business systems using Java applications. Students will learn to create GUI applications as well as Console-based applications and learn inner classes, graphics and image processing. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32CSTN222</td>
<td>Object Oriented Programming with Java II</td>
<td>This course is a continuation of Object Oriented Programming with Java I. Students will learn to write applets using Java's AWT and Swing UI Toolkit. Event handling, Exception handling, and Multithreading will be studied. Students will also learn JDBC, Servlet programming, animation Remote Method Invocation and Networking. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32CSTN223</td>
<td>Advanced Java Programming</td>
<td>To educate the student about the full web development environment available through the Java 2 Enterprise Edition (J2EE) and introduce the student to the various components of the platform. The course will cover Java Server Pages, Java Transaction Service and API, concepts of the Java mobile programming. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32CSTN246</td>
<td>Visual Programming I</td>
<td>This course introduces the fundamental elements of object oriented programming under the Windows environment. Visual Basic is the programming language used in this course. Students will learn to write highly visual event driven program by supplying codes to the events and setting properties of the various controls supplied by Visual Basic. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
</tr>
</tbody>
</table>

**BoK (Breadth of Knowledge)**
- Coding (DC)
- Diversity & Culture (EC)
- English composition (FA)
- Fine Arts (HP)
- Historical Perspectives (HU)
- Humanities (LT)
- Natural Sciences (NS)
- Quantitative Reasoning (QR)
- Social & Ethical Issues (SE)
- Social Sciences (SS)
Culinary Arts

32CUL320
History of Restaurants in the United States
From the birth of restaurant dining as recreation in the 1800s to current dining lifestyle trends, History of Restaurants in the U.S. will explore the early motivations of the restaurant industry, how technologies have affected the growth of the industry, and in turn how those technologies include the use of digital photography for the restaurant industry. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL321
Setting The Stage - Banquet & Catering
Students will conduct in-depth analyses pertaining to on-premise banquet operation, off-premise catering, and an overview of global event planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL322
Classical French Cookery
Following the path of the Grand Chefs of France such as Careme, Escoffier, and Bocuse, the student will study and practice the regional cuisines of France. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL323
American Ethnic Cuisines
Following the historical immigration of the new Americans, the course will explore the evolution of American Regional Cooking. The student will research the fundamentals of American regional cooking including Cajun, Creole, South Western, Texmex, California Spa Cuisine, New England, and San Francisco Asiatic Cooking. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL333
Computer Use in Food Management
Utilizing desktop publishing fundamentals, the student will focus on ways to produce brochures, banners, menus, and documents that include computer and its related technologies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL334
American Ethnic Cuisines
Following the historical immigration of the new Americans, the course will explore the evolution of American Regional Cooking. The student will research the fundamentals of American regional cooking including Cajun, Creole, South Western, Texmex, California Spa Cuisine, New England, and San Francisco Asiatic Cooking. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL335
Advanced Cake & Pastry
Using the skills the student has learned this course will give a more in-depth look into the art of pastry, including plated desserts, decorating cakes, pastry for retail and buffet production. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL337
Advanced Cake, Pastry and Bakeshop
Using the skills the student has learned, this course will give a more in-depth look into the art of pastry, including plated desserts, decorating cakes, pastry for retail and buffet production. The student will also hone their basic bakeshop skills to produce advanced artisan breads, cookies, breakfast pastries, event and novelty cake items. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL338
Marketing and Merchandising Food and Food Products
An introduction to the principles of food product development, and the elements involved from product conception to the marketplace. Topics include strategic product development, consumer research, marketing and product launch, distribution channels, evaluation and regulations affecting the processes. Prereq: 32CUL333. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL404
Creating Foods
The focus of this course is on the integration of culinary skills, training in food chemistry, and the innovative use of flavors and ingredients to prepare original foods. We examine the gastronomic principles involved with storing, handling, serving, and pairing wine with foods, and wine will be tasted during each class. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Culinary Arts

32CUL406 Discovering Wine
Special attention is paid to winemaking, grape growing and the history and terroir of the world's important wine producing regions. Students will need to purchase a set of wine tasting glasses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32CUL420 Culinary Presentation
The course will focus on recipe and press release writing skills, professionalism within the industry and media presentations. Within the course, students will be required to present a 30-minute culinary lecture and demonstration to their peers. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Civil and Construction Engineering Technology

32CVTN212 Structures II
(Lab. 222) Strength of materials. Study of the mechanical properties of structural elements. Relationships between external forces and internal forces. Relationships between forces, stresses, and deformations. Lecture and lab must be taken concurrently. Prereq: 32CVTN213, 32MATH244. Coreq: 32CVTN222. BoK: NS, QR. Credit Level: U. Credit Hrs: 2.00-3.00

32CVTN213 Mechanics of Rigid Bodies
Statics, equilibrants and resultants of two-dimensional force systems, centroids, and moments of area. Prereq: 32MATH244, 32BLTN107. Coreq: 32CVTN223. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CVTN222 Structures II Lab
Laboratory instructions for Structures II (32CVTN212) Prereq: 32CVTN212. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN223 Applied Structural Mechanics
Studio course which explores the use of graphics and computer technology for problem solving. Student presentations are required. Coreq: 32CVTN213. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN242 Surveying
Traversing, site plan, state plane coordinates, control survey, construction survey, circular curves and parabolic curves, earthwork. Complete five projects. Prereq: 32MATH244. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32CVTN251 Fluid Mechanics
(Lab. 261.) Fluid statics and dynamics. A study of the principles of conservation of mass and energy applied to fluid flow systems. Characteristics of flow in enclosed conduits and open channels. Prereq: 32CVTN213, 32MATH244. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CVTN261 Fluid Mechanics Laboratory
Laboratory instructions for Fluid Mechanics (32-257-251). BoK: NA. Credit Level: U. Credit Hrs: 1.00

32CVTN313 Structures III
(Lab. 323.) Design of structural steel members and connections based on LRFD Specifications. Practical problem solving and detailing of solutions. Lecture and lab must be taken concurrently. Prereq: 32CVTN212. BoK: NS, QR. Credit Level: U. Credit Hrs: 2.00-3.00

32CVTN314 Structures IV
(Lab. 324.) Design of structural concrete members such as beams, slabs, spread footing and columns. Lecture and lab must be taken concurrently. Prereq: 32CVTN313. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Civil and Construction Engineering Technology

32CVTN314 Structures IV
concurrently. Prereq: 32CVTN313. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CVTN323 Structures III Laboratory

32CVTN324 Structures IV Laboratory

32CVTN378 Soil Mechanics Laboratory

32CVTN390 Heavy/Highway Estimating
A structured estimating process; work breakdown, cost elements, resources, labor material, equipment subcontractors and bid pricing. Prereq: 32ARTN122, 32ARTN289, 32BLTN107, 32CVTN242. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32CVTN401 Structural Systems I
(Lab. 411.) Building code requirements that affect the selection of systems for light construction. Lateral bracing systems for one-story construction. Shallow and deep foundation systems. Prereq: 32CVTN314. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32CVTN411 Structural Systems I Laboratory

32CVTN571 Structural Systems II
Lateral bracing systems for tall buildings. Case studies. Prereq: 32CVTN401. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Electrical and Computer Engr and Computer Sci

32ECES321 Network Analysis I
Fundamental laws, basic network variables, formulation of network equations, transient analysis. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES322 Network Analysis II
Sinusoidal steady state analysis of electric networks with applications, analog networks, four terminal networks. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES323 Network Analysis III
Fourier series introduction to Fourier transforms, Laplace transforms with applications. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32ECES331 Electric and Magnetic Fields I
Review of electricity and magnetism. Fundamental concepts. Introduction to field theory. BoK: QR. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
specifications, patents, decision theory, reliability, optimization and topics important to the designer including product liability.

Communications Circuit Design II
32ECES542
Electromagnetic Devices I
32ECES421
Electromagnetic Devices II
32ECES422
Electromagnetic Devices III
32ECES423
Electronics I
32ECES431
Electronics II
32ECES432
Electronics III
32ECES433
Electronics IV
32ECES434
Feedback Control
32ECES486
Independent Study in Electrical Engineering
32ECES499
Communication Circuit Design I
32ECES541
Communication Circuit Design II
32ECES542
Engineering Design
32ECES571
Economics
32ECON141
Principles of Economics: Micro
Introduction to our economic system; supply and demand; pricing under competitive and noncompetitive market structures. BoK: SS. Credit Level: U. Credit Hrs: 3.00
32ECON142
Principles of Economics: Macro
Introduction to national product and national income, and to monetary and fiscal policies for stability and growth. BoK: SS. Credit Level: U. Credit Hrs: 3.00
32ECON286
Survey of Economics
Study of the production, distribution, and consumption of goods and services. Relations between the economy, society and government. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00
32ECON371
Economics of Sport
Economics growth of the sport industry over the last century. This course will apply basic economic tools to questions and problems in professional and intercollegiate sports as well as the operation of stadiums and arenas. Prereq: 32ECON142. BoK: SS. Credit Level: U. Credit Hrs: 3.00
32ECON386
Economic Analysis
Asset valuation, depreciation and depletion, investment and operating costs, taxes, inflation, production economics, break-even analysis, value analysis, economic service life. Relations between economy and society. Prereq: 32ECON286. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00
32ECON481
Globalization and International Trade
Globalization and Theory of International Trade including balance of payments, tariffs, quotas, exchange rates; international monetary problems; foreign transactions and domestic economy; regional trade agreements. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00
Electrical Technology
32EETN004
Electrical Equipment and Maintenance
Basic theory of operation of electrical equipment including: magnetic circuits, transformers, motors and instrumentation. Also preventative and routine maintenance procedures pertaining to electrical equipment. Prereq: 32EETN018. BoK: NA. Credit Level: U. Credit Hrs: 3.00
32EETN005
Electrical Equipment and Maintenance
A continuation of Electrical Equipment and Maintenance (See 32-170-004). Prereq: 32EETN004. BoK: NA. Credit Level: U. Credit Hrs: 3.00
32EETN006
Electrical Equipment and Maintenance
Continuation of Electrical Equipment and Maintenance (See 32-170-004) Prereq: 32EETN005. BoK: NA. Credit Level: U. Credit Hrs: 3.00
32EETN016
Fundamentals of Electricity
A study of basic electrical principles including static and dynamic electricity, electromagnetism, DC and AC circuits, and an introduction to solid-state electronics. Review of applied mathematics is coordinated with related electrical formulas and calculations. BoK: NA. Credit Level: U. Credit Hrs: 3.00
32EETN017
Fundamentals of Electricity
A continuation of Fundamentals of Electricity (See 32EETN016). Prereq: 32EETN016. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Students will learn the concept of three-phase and single-phase power diodes, transistors, SCR, Triac and their applications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

They will learn how to use algebra and trigonometry mathematics to solve electrical equations and calculate current and voltage. They will also learn how to calculate and use appropriate electrical devices for correcting power factor and harmonic pollutions in the electric system. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Students will learn the basic of DC and AC electrical circuit theory. They will also learn routine maintenance procedures for electrical motors, NEMA standard ratings and their control apparatus. Prereq: 32EETN060. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Students will learn the concept of three-phase voltage generation and connection to a three-phase load. They will learn transformers types and connections, and characteristic of synchronous motors and generators. They will also learn how power electronic devices operate and are utilized. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Students will learn the operating characteristics of transformers and electrical motors including DC motors, three-phase and single-phase induction motors. They will also learn routine maintenance procedures for electrical motors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Students will be provided with the basic information on installing, service entrance transformers/conductors/over-current protection, motor short circuit, and fault protection for air conditioning and refrigeration units. They will also learn how to select type and size of electric wires and conduits for electrical device, sensors and instruments. Prereq: 32EETN060. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Students will learn the procedures for PLC selection, port connections, and characteristic of synchronous motors and generators. They will also learn how power electronic devices operate and are utilized. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Students will learn how to use IBM compatible personal computers for personal and professional applications. They will also learn how to connect and troubleshoot peer-to-peer and other basic local area network (LAN) systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Students will learn the operating characteristics of transformers and electrical motors including DC motors, three-phase and single-phase induction motors. They will also learn routine maintenance procedures for electrical motors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Students will learn the concept of three-phase and single-phase power.
Electronic Technology

32ELTN099
Electrical PE Review
This course is a review of electrical engineering topics to prepare students for the Electrical Engineering Professional Exam. Topics include AC/DC circuits analysis, single phase and three phase power, transformers, rotating machines, electronic devices, op-amp circuits, combinational and sequential logic, communication and control systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN101
Electronics
Semiconductor concepts, device characterization and operation of junctions, bipolar transistors, JFETs and MOSFETs, four-layer devices and LED's Bias design and single-stage amplifier circuit implementations. Prereq: 32ELTN142. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN102
Elements of Electrical & Computer Engineering Technology
Survey of electrical and computer engineering technology. An introduction to circuit theory, computer simulation and computer systems concepts. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ELTN111
Electronics Laboratory
Investigation of electronic devices and their operation in active circuits. Introduction to electronic circuit design. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN112
Elements of Electrical & Computer Engineering Laboratory
Labs exercises emphasizing the practical aspects of CAD; computer simulation and laboratory testing of simple DC circuits. Coreq: 32ELTN102. BoK: NA. Credit Hrs: 1.00

32ELTN141
Digital Systems I
Number systems, Boolean algebra, logic concepts, and characterization of TTL and CMOS logic families. Investigation of gates, latches, decoders, and bistables and their interconnection into combinational logic subsystems. Prereq: 32ELTN101. Coreq: 32ELTN151. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN142
Circuit Analysis I
Investigation of electric circuits and problems solutions using Ohm's Law. Kirchhoff's voltage and current laws, mesh and nodal analysis methods, superposition and Thévenin's and Norton's theorems. Electric and magnetic field concepts. Prereq: 32MATH178, 32ELTN102. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN143
Circuit Analysis II
Investigation of circuits containing real and reactive components with sinusoidal forcing functions. Problem solution employing phasor analysis, superposition, RC, RL, and RLC parallel circuits including resonance and transient phenomena. Prereq: 32ELTN142. Coreq: 32ELTN153. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN144
Circuit Analysis III
Advanced circuit analysis techniques including mesh and nodal analysis, AC bridges, filters, and pulsed circuits. Prereq: 32ELTN143. Coreq: 32ELTN156. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN151
Digital Systems I Laboratory
Experimentation with logic gates, and their interfacing requirements, bistables, and latches, decoders and monostables, TTL, CMOS, and ECL logic families. Coreq: 32ELTN141. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Electronic Technology

32ELTN152
Circuit Analysis I Laboratory
Utilization of electrical measurement instrumentation in the verification and proofing of the concepts, methods, and laws of DC Circuit Analysis. Coreq: 32ELTN142. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN153
Circuit Analysis II Laboratory
Experiments are performed to verify and study AC applications of RC parallel circuits and resonance transient phenomena, and time-domain analysis. Prereq: 32ELTN142. Coreq: 32ELTN143. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN154
Circuit Analysis III Laboratory
Mesh and nodal analysis, AC bridges, filters, pulsed circuits. Prereq: 32ELTN143. Coreq: 32ELTN144. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN203
Linear Electronics
Topics of higher power nature, power supplies and voltage regulators, OP Amps and AC power control. Prereq: 32ELTN101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN207
Large Signal Electronics
Multistates amplifiers, JFETS, frequency response considerations. Prereq: 32ELTN101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN209
Telecommunications I
Basic concepts of telecommunications systems, emphasizing the present telephone system. Prereq: 32ELTN143. Coreq: 32ELTN219. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN210
Telecommunications II

32ELTN211
Telecommunications III
Study of new and emerging telecommunications techniques, including cable and satellite systems. Prereq: 32ELTN210, 32ELTN220. Coreq: 32ELTN221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN213
Linear Electronics Laboratory
Laboratory experiments in support of the lecture (32ELTN203). BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN218
Large Signal Electronics Laboratory
Laboratory experiments in support of the lecture (32ELTN207). BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN219
Telecommunications I Laboratory
Experiments and studies of advanced telecommunicatins techniques, including cable and satellite systems. Prereq: 32ELTN143, 32ELTN153. Coreq: 32ELTN209. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN220
Telecommunications II Laboratory

32ELTN221
Telecommunications III Laboratory
Experiments and studies of advanced telecommunications techniques. Prereq: 32ELTN210, 32ELTN220. Coreq: 32ELTN211. BoK: NA. Credit
32ELTN221
Telecommunications III Laboratory
Level: U. Credit Hrs: 1.00

32ELTN242
Digital Systems II
Study of MSI and LSI digital registers, half-adders, static and dynamic memories, and their interconnection to form computer circuits from the electronic device timing, and signal perspectives. Introduction to microcomputers circuits with the Intel SDK-85 trainer. Prereq: 32ELTN141. Coreq: 32ELTN252. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN243
Assembly Language and Microprocessors
Organization of combinational logic and memory into computer systems. Arithmetic and logic units, memory and control, and input-output devices. Prereq: 32ELTN242. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN247
Electronic Communications
Introduction to communications signals and spectra, analog modulation and demodulation including AM, FM, and FSK. Study of RF, video, and tuned circuits. Time and frequency domain concepts, and noise. Prereq: 32ELTN203. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN252
Digital Systems II Laboratory
Experimentation with digital complex function devices including interfacing requirements. Half-adders, decoders, multiplexers, registers, and associated functions and their interconnection into subsystems are evaluated. Coreq: 32ELTN242. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN253
Assembly Language and Microprocessors Lab
Computer concepts are illustrated by manipulation of architectural features in an existing system. Prereq: 32ELTN242, 32ELTN252. Coreq: 32ELTN243. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN256
Topics Of Applied Design
Covers practical concepts integral to the design of systems. This includes component selection, and tolerance, circuit design and construction and other concepts that are important to the design of electronic system. Prereq: 32ELTN203, 32ELTN242. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN257
Electronic Communications Laboratory
Experimental investigation of tuned circuits, signal analysis and Fourier methods in the time and frequency domains, and AM and FM modulation and demodulations circuits. Coreq: 32ELTN247. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN266
Topics Of Applied Design Laboratory
Practical projects and experiments in applied electronic design, in support of Applied Design lecture (32ELTN256). Prereq: 32ELTN213, 32ELTN252. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN278
Basic Electrical Circuits
DC and AC voltage, current and power concepts, series and parallel circuits, and elementary networks. Waveform analysis, impedance and phase relationships, application to power systems. Coreq: 32MATH179. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32ELTN288
Basic Electrical Circuits Laboratory
Experiments with DC and AC circuits, measurement techniques, and proofing of fundamental circuit analysis theorems. Coreq: 32ELTN278, 32MATH179. BoK: NA. Credit Level: U. Credit Hrs: 1.00
Electronic Technology

32ELTN346 Feedback Control II

32ELTN351 Topics in Elec Instrumentation II Laboratory
Experiments in advanced operational amplifier applications, with emphasis on biomedical systems. Prereq: 32ELTN289. Coreq: 32ELTN341. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN352 Embedded System Laboratory
Experiments in building stand alone microcomputer systems in support of the lecture course. Prereq: 32ELTN342. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN355 Servomechanism Laboratory
Experimental investigation of feedback control systems for speed and position control. Measurement of system transient response, steady state error, and compensation effects. Prereq: 32ELTN345. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN356 Feedback Control II Laboratory
Design of computer simulation and implementation of analog and digital compensators for servomechanisms in support of Feedback Control II lecture. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN372 Feedback Control I
Analysis and modeling of feedback systems using D.E.’s and T.F.’s. Prereq: 32MATH381. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN373 Electromagnetics
Investigation of electric and magnetic quantities under non-time varying charge and charge-free conditions. Maxwell’s equations and wave propagation with applications to transmission line and antennas. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN381 Electronic Fundamentals
Introduction to linear and digital electronic devices and circuits with emphasis on the elements of instrumentation and measurement systems. FOR NON EET MAJORS. Prereq: 32ELTN278. Coreq: 32ELTN391. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN382 Feedback Control I Laboratory
Experimentation and simulation of feedback systems in support of the lecture (32ELTN372). Coreq: 32ELTN372. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN391 Electronic Fundamentals Laboratory
Experiments with linear and digital electronic circuits using oscilloscopes and other measurement instrumentation. Investigation of data acquisition system components and their interconnection. Prereq: 32ELTN381. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN401 Topics of Data Communications
Investigation of analog and digital modulation and detection methods and performance limitations primarily for data transmission including AM, FMD, OOK, FSK, PAM, PCM. Noise and channel considerations, system calculations. Prereq: 32ELTN203. Coreq: 32ELTN411. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Electronic Technology

32ELTN402 Topics of Data Communication Laboratory
Experimental investigation of analog-to-digital conversion, compounding, pulse code modulation, and adaptive delta modulation. Time and frequency division multiplexing will also be investigated. Data communication protocols will be evaluated. Coreq: 32ELTN401. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN411 Senior Design I
Real-world design project combining both theoretical and experimental elements in area of student's primary interest. Approximately 150 hrs. effort culminating in Senior Thesis. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32ELTN412 Senior Design II
A continuation of Senior Design I. Prereq: 32ELTN411. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN413 Senior Design III
A continuation of Senior Design I Prereq: 32ELTN412. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN415 Topics of Flexible Automation
An introduction to PLC architecture, programming, and networking based upon the Modicon984 family of controllers, Modsoft, and PanelMate Plus graphic MMI. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN416 Rotating Electrical Machines
An investigation of the operating characteristics and control of the following rotating electrical machines: 3-phase induction motors, single phase induction motors, stepper motors, synchronous motors, synchronous generators, and DC machines. Coreq: 32ELTN426. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN417 Topics of Microcomputer Interfacing
Interfacing of both DC and AC devices using various support circuits and the C programming language. Topics include programmable peripheral devices, interrupts, and optoisolators. Prereq: 32IET160. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN418 Topics of AI-Expert Systems
An application introduction to artificial intelligence concepts and expert systems. Topics include LISP programming, expert system shells, and applications. Prereq: 32ELTN484. Coreq: 32ELTN428. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN419 Topics of Flexible Automation II
Advanced topics in PLC architecture, programming and networking based upon the Modicon family of controllers. Prereq: 32ELTN415. Coreq: 32ELTN429. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN422 Topics of Operating Systems
Examination of operating systems concepts, services, file systems, scheduling, memory management, protection and real-time applications. Prereq: 32ELTN484. Coreq: 32ELTN432. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32ELTN424 Topics of UNIX System Administration
Examination of UNIX system administrative tasks. Topics include startup, shutdown, user accounts, file systems, backup and restore, terminals, modems, and TCP/IP management. Prereq: 32ELTN484. Coreq: 32ELTN434. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Electronic Technology

32ELTN425
Topics of Flexible Automation Laboratory
PLC configuring, programming, trouble shooting, and networking. Coreq: 32ELTN415. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN426
Rotating Electrical Machines Laboratory

32ELTN427
Topics of Microcomputer Interfacing Laboratory
Hardware/software exercises to demonstrate classroom concepts utilizing the appropriate hardware and software. Prereq: 32ET160. Coreq: 32ELTN417. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN428
Topics of AI-Expert Systems Laboratory
LISP and expert system shell programming exercises to illustrate classroom concepts. Prereq: 32ELTN484. Coreq: 32ELTN418. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN432
Topics of Operating Systems Laboratory
Programming projects to demonstrate operating systems lecture concepts. Prereq: 32ELTN484. Coreq: 32ELTN422. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN434
Topics of UNIX System Administration Laboratory
Exercises to demonstrate classroom concepts utilizing the UNIX operating system. Prereq: 32ELTN484. Coreq: 32ELTN424. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN436
Topics of Compiler Design
Examination of lexical analysis, parsing, code generation, optimization, and error recovery. Prereq: 32ELTN484. Coreq: 32ELTN426. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN437
Object Oriented Programming in C++
An introduction to data structures using the C++ programming language and the UNIX programming environment. Topics include linked lists, libraries, structures and pointers. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN445
Topics of State Variable Feedback
Student learn to model a wide array of physical systems using state-variable models. The concept of altering the characteristics (poles) of a system using feedback is then discussed in terms of stability, transient response, and steady-state tracking performance indices. For systems which are controllable. Ackermann’s Formula is used to compute the feedback control gains for the states. Matlab and Simulink are utilized extensively to compute the states and simulate the physical systems and the state estimators. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN446
Topics of Compiler Design Laboratory
Programming projects to demonstrate classroom concepts utilizing the C programming language and the UNIX operating system. Prereq: 32ELTN484. Coreq: 32ELTN436. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Electronic Technology

32ELTN447
Object Oriented Programming in C++ Laboratory
Experiments and studies in C++ in support of the lecture. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN451
Polyphase Networks

32ELTN455
Topics of State Variable Laboratory
Students are given mechanical, electrical, and chemical systems to model and control. Matlab and Simulink are utilized extensively to compute the state gains and simulate the physical systems and the state estimators. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN456
Topics of Computer Networks I
An introduction to design, selection and implementation of computer networks. Specific topics include: transmission media packets, frames, LAN's, WAN's, addressing, routing, protocols and TCP/IP. Prereq: 32ELTN484. Coreq: 32ELTN466. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN457
Topics of Computer Networks II
UNIX network programming. Topics include interprocess communication, Berkeley sockets, System V transport layer, and network security. Prereq: 32ELTN456. Coreq: 32ELTN467. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN458
Topics Of Virtual Instrumentation
Control and monitoring of electronic systems using computers incorporating virtual instrumentation software. Topics covered will include data acquisition and logging, data analysis and reporting. Prereq: 32ELTN243, 32ELTN289. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN461
Polyphase Networks Laboratory
Single-phase power measurements, power factor correction, 3-phase rectifiers, transformer characteristics, 3-phase transformations. Prereq: 32ELTN451. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN466
Topics of Computer Networks I Laboratory
Exercises and projects to illustrate lecture concepts. Coreq: 32ELTN456. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN467
Topics of Computer Networks II Laboratory
Programming projects to demonstrate classroom concepts utilizing the UNIX operating system. Prereq: 32ELTN456. Coreq: 32ELTN457. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN468
Topics Of Virtual Instrumentation Laboratory
Laboratory experiments in computer data acquisition, analysis and control, in support of the lecture. Prereq: 32ELTN299, 32ELTN253. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN469
Topics of Power Semiconductor Drives
Study of power semiconductor motor drives, including inverters, choppers and PW modulators. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN471
Topics of RF Communications Systems
A study of radio frequency sources, amplifiers, and system design. Circuit design employing s-parameters, system calculations using

H=University Honors course.
Electronic Technology

32ELTN471
Topics of RF Communications Systems
signal-to-noise ratios, and introduction to optical communication systems. Prereq: 32ELTN247. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN478H
Topics Of Technical Project Management
Issues related to managing technical projects in organizations. These include: Project Planning, Budgeting and Control Leadership, Conflict Resolution, Resource Allocation and Scheduling. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN479
Topics of Power Semiconductor Drives Laboratory
Experimentation with power motor drives in support of the lecture. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN481
Topics of RF Communication Systems Laboratory
Experimental evaluation of modulation techniques to include: frequency modulation, FSK, BFSK, mixers and RF amplifiers will be constructed and evaluated. Measurement of transmission parameters. Introducing overview of RF software with application. Coreq: 32ELTN471. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN483
Computer Architecture
An introduction to computer design. Topics include performance and cost, instruction set design, instruction set measurements and basic processor implementation techniques. Prereq: 32ELTN243. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ELTN485
Digital Signal Processing

32ELTN486
Graphical Network Programming
This course uses JAVA to explore graphical applications and network/web applications. This is a culminating, capstone-like project-based learning experience for CET students. Prereq: 32CET133. BoK: NS. Credit Hrs: 3.00

32ELTN487
Topics of Digital Signal Processing II
Advanced studies and applications of digital signal processing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ELTN493
Computer Architecture Laboratory
Simulation language exercises to illustrate classroom concepts. Coreq: 32ELTN483. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN495
Digital Signal Processing Laboratory
Application of computer techniques to DSP in support of DSP lecture. Coreq: 32ELTN485. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN496
Graphical Network Programming Laboratory
Programming projects to demonstrate classroom concepts utilizing X-based workstations. Coreq: 32ELTN486. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32ELTN497
Topics of Digital Signal Processing II Laboratory
Experimentation and simulation in support of the lecture. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Electronic Technology

32ELTN499
Special Topics in EET
Special Topics in Electrical Engineering Technology. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

Engineering Fundamentals

32ENFD101
Introduction to Engineering and Engineering Technology
An overview of the Engineering and Engineering Technology profession and the skills necessary for success. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32ENFD141
Mechanics I
Study of statics. Moments, resultant forces and equilibrium for particular and rigid bodies. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ENFD142
Mechanics II
Study of motion and the relationship between force, inertia, and kinetics of particles. Work-energy and impulse-momentum concepts. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ENFD143
Mechanics III
Study of motion and the relationship between force, inertia, and kinematics of rigid bodies. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32ENFD371
Basic Thermodynamics
Thermodynamics as an engineering science, fundamental concepts, law, processes, and properties of matter; application in the field of engineering. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD372
Basic Fluid Mechanics
Fluid properties, types of flow, fundamental concepts and equations, viscous effects, similarity parameters, measuring of flow. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD373
Basic Heat Transfer
Fundamental considerations in heat transfer; conduction, convection, and radiation. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD374
Nature and Property of Materials
The structures of solid materials. Structure imperfections and responses to static and dynamic loading. Phase equilibria in solids and material response to engineering environments. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD375
Basic Strength of Materials
Application of the principles of mechanics to the design of shafts, beams, columns, and structures. Shear and bending moment diagrams; deflections; combined stresses. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD376
Basic Electric Circuit Theory
Transient and steady state circuit analysis, equivalent networks, power, polyphase systems, resonance, and Thevenin's theorem. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD377
Basic Electrical Machinery
Theory and characteristics of transformers and rotating machinery. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

32ENFD378
Basic Electronics
Characteristics of active devices, application to electronic circuits and instruments. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
Engineering Fundamentals
32ENFD049

Independent Study in Engineering Fundamentals
Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

English
32ENGL071

Study Skills and Problem Solving
Individual and group instruction in skills important to successful college work. Additional emphasis on activities to enhance critical and analytical problem solving abilities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL091

Basic Grammar and Writing
A grammatical approach to writing anxieties with exercises in grammar, mechanics, usage, practice in sentence and paragraph writing; assignments based on student's language needs and interests. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

32ENGL097

Preparatory Reading and Writing
Review of reading and writing skills for success in English Composition I. Heavy emphasis on effective reading strategies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL099

Preparatory Composition
Review of skills necessary for success in English Composition I. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL101

English Composition I
A study of college level writing, including strategies for pre-writing, writing, revising, and editing that focuses on audience and purpose, and introduces concepts of critical thinking, reading, writing, and information literacy. Portfolio used for University Exit Exam. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL102

English Composition II
An introduction to researching and writing in the technical professions with a focus on fundamentals of argument and continued emphasis on information literacy from English Comp I resulting in writing of a major research paper on a technical subject, together with a study of memos, letters, proposals, and reports. Prereq: 32ENGL101. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL103

English Composition III
Final course in English Composition sequence, emphasizing further development of critical thinking, reading, and writing skills and strategies, through the study of literature including fiction, poetry, and/or drama. Prereq: 32ENGL102. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL103H

Honors English Composition III
Final course in English composition sequence for Honors Students. It emphasizes further development of critical thinking, with more challenging examples and readings than the regular section of English Comp III. Prereq: 32ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL234

Contemporary Literature: Drama
Focuses upon the works of 20th Century Playwrights. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL235

Technical Poetry: The Peak of Technique
The study of poetry as technique: technical analysis of poetic elements, with focus on poems that technical in form and content. BoK: LT. Credit Hrs: 3.00

32ENGL238

Technical and Professional Writing I
Technical writing forms, emphasis on research, style, and use of graphics. Prereq: 32ENGL103. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32ENGL240

Biographies of Eminent Scientists
We will read biographies of Sir Isaac Newton, Albert Einstein, Marie Curie and Stephen Hawking. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL250

British and American Mystery Stories
Examines British and American mystery and detective stories as fictional puzzles, and explores the ways puzzles/crimes solved. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL270

Contemporary Mystery and Spy Story
The contemporary mystery and spy story: P.D. James, John LeCarre, John Grisham, Sara Paretsky, and Jonathan Valin. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL271

Themes in American Literature: Lifestyles
Nonconformists, the individual vs. society. An examination of various literary works that deal with social outsiders, individualists, and rebels who resist society's expectations, conformity, or group acceptability. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL272

Money and The American Dream
This course is designed to improve your appreciation for as well as your reading, writing, and critical thinking about treatment of the theme of the American dream in American literature. We will trace this theme from the Jazz Age of the 1920's to the big money of today's casinos. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL275

American Childhood in Literature
Using a cultural studies approach, this course examines literary treatments of childhood in American literature. This is a multi-ethnic course that attempts to help students understand childhood as a socially constructed concept. Prereq: 17ENGL101. BoK: LT. Credit Level: U. Credit Hrs: 3.00

32ENGL289

Intermediate Composition
Drawing from a specific topic or topics drawn from broad disciplinary fields, this intermediate level, General Education course builds upon and enhances the writing and reading skills developed in first-year writing courses (English 101 &102). The course emphasizes critical reading and writing, more advanced research and argumentative skills, and rhetorical understanding of discourse as it is used in different disciplines and discourse communities. This course will bridge students' learning about writing from the first-year sequence to more advanced writing in their chosen disciplines in upper-level courses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ENGL341

Technical and Professional Writing II
Emphasis on writing manuals, professional articles, and technical correspondence. Prereq: 32ENGL341. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32ENGL350

The Spy Story: International Espionage and Politics.
Explores ways that the spy in fiction mirrors closely the complexities of international politics and warfare in the 20th century. Prereq:
An examination of the evolution and tradition of the American short man's search for a better society. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

Selected Comic, Satiric, & Bawdy Poetry and Prose
We will read selections from Chaucer, Shakespeare, Dryden, Pope, Swift, Byron and Ogden Nash. We will also spend time on the limerick. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

Technical Publications: Layout, Design & Production
This course is a study of the practices and principles of design, editing, and production of technical and organizational publications, or the "technical magazines" of business and industry, with emphasis on integrated editing, the merging of graphics and text into an organizational publication for distribution to a large audience. Prereq: 32ENGL103. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Border Crossings: Images in World Cinema
The course will explore the meaning and legitimacy of border crossings as represented in Contemporary World Cinema. Students will attempt to consider and question categories such as exile, refugee, tourist, as well as those of invasion, war, and famine being represented and catalogued in this vibrant cinema discourse that provides an international dialogue about the things that separate and join us. Prereq: 32ENGL101, 32ENGL102. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

Entering The Global Conversation
The course will look at the conditions of developing countries the voices of their writers, musician s, and filmmakers, concentrating on the day to day events that occupy a majority of the world's people. In the literary and artistic products of these are some of the most probing questions about how technology and global marcheplace affect ordinary citizens who have even less influence over their futures than Westerners do. For instance, the class will look at the literature coming out of the Middle East, films shaping public opinion in India, or the music catalyzing democratic change in so uthern Africa. Prereq: 32ENGL103. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

Filmic Arts
An introduction to film with concentration on the visual and verbal elements that create impact and viewing pleasure. Attention will be given to classic and contemporary films that best illustrate the filmic art. BoK: LT, FA. Credit Level: U. Credit Hrs: 3.00

Film As Production
In this course, students will concentrate on the elements of production both technical and artistic. Because filmmaking blends specific technical knowledge with visual, verbal and written arts, students will try their hand at composing and developing a short film through storyboard, writing and editing. Prereq: 32ENGL101, 32ENGL102. BoK: LT, FA. Credit Level: U. Credit Hrs: 3.00

Utopian and Science Fiction Novels
Study of selected science fiction with focus on technology's effect on man's search for a better society. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

Literature of Science and Technology
Study of selected scientific literature. BoK: LT. Credit Level: U. Credit Hrs: 3.00

American Short Story
An examination of the evolution and tradition of the American short story, including the process through which stories are created. Prereq: 32ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

Technology, Holocaust and Text
While no course can review every technological element related to the Holocaust, this one will examine a few texts in literature, film, and television to discern the role technology played initially and continues to play concerning this important historical moment; it will permit students to investigate the limits of technology in producing such an experience as well as the experience which is essentially beyond representation. The class will also consider ethical questions at the heart of recording, investigating, and dispensing such material. Prereq: 32ENGL103. BoK: SE, LT. Credit Level: U. Credit Hrs: 3.00

Food and Film
This course examines films that concern food or utilize food in its preparation as a meaning system in contemporary film. The class will investigate the significance of food in establishing groups such as family, community, and culture. Prereq: 32ENGL103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

The African American Literary Tradition
This course presents key issues and themes in African American literature from the Slave Era to the present. The course is comprised of important texts in multiple genres: poetry, drama, short fiction, essays and novels which have both contributed to and shaped the major critical work of African American literature from its "beginnings" through the 20th century. Though the course presumes very little knowledge on the students' parts of either African American studies specifically or ethnic studies more generally, it does presume some basic literature background. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

Nobel Prize for Literature: Globalization Nationalism & Post-Colonialism
As readers we will try to understand the reasons for the awarding of the Nobel Prize to authors from diverse cultural, ethnic, religious and political backgrounds to see if Nobel's request that the prize be awarded to the author whose work "benefited humanity most in given years. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

Nobel Prize for Literature: Ireland's Four Laureates
As readers we will try to understand the reasons for the awarding of the Nobel Prize to authors from diverse cultural, ethnic, religious and political backgrounds to see if Nobel's request that the prize be awarded to the author whose work "benefited humanity most in given years. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

Nobel Laureates in Literature: Past & Present Prize Winning Authors (1909-1993)
An exploration of the writings of noble laureates in literature in a cultural and political context. BoK: LT. Credit Level: U. Credit Hrs: 3.00

The Pink Triangle: Homosexuals in Nazi Germany
When Hitler came to power in 1933, Germany changed from a center of homosexual liberation to a center of homosexual oppression. We will follow Germany's gay men from the cabaret to the concentration camp and try to comprehend how this happened, and what are the wider implications. Prereq: 32ENGL103. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

Senior Project Communications I
The first communication course in the senior project sequence covers review of the literature, definition of the chemical problem to be solved, and the development of a personal statement of the problem that the student wishes to pursue. BoK: LT. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Stationary Engineering I
To provide the fundamental technical knowledge of steam plant operation. This includes steam and its importance, utility boilers for electrical power, combined cycle cogeneration systems, fundamentals of steam generation, principles of heat transfer, superheaters, nuclear steam generation, design and construction of boilers, fluidized bed boilers and combustion of fuels, maximum allowable working pressure, internal design pressure and boiler horsepower calculations. Prereq: 32ENGY101. BoK: NA. Credit Hrs: 3.00

Stationary Engineering II
Boiler settings, combustion systems and auxiliary equipment, handfiring, stokers, pulverized coal, fuel oil, gas, automatic operation of boilers, boiler auxiliaries, operation and maintenance of boilers, instruments and automatic control systems, pumps, and auxiliary steam plant equipment. Minimum and maximum hydrostatic test pressure calculations. Prereq: 32ENGY102. BoK: NA. Credit Hrs: 3.00

Stationary Engineering III
Pumps, facts about fluids and pumping, factors affecting pump operation, pump installation and operations, pump testing and calculations, pump maintenance, steam turbines, turbine design and operation, pump installation and operations, pump testing and calculations. Prereq: 32ENGY102. BoK: NA. Credit Hrs: 3.00

Modern Fiction
Study of selected late 19th century and early 20th century short stories and novellas. Prereq: 32ENGL103. BoK: LT. Credit Hrs: 1.00-3.00

Independent Study in English
This course permits independent study instruction to be offered in the Humanities area of English. Prereq: 32ENGL490. BoK: NA. Credit Hrs: 3.00

Senior Design Communications
Researching, organizing and writing formal technical reports, and oral presentations, in conjunction with major departments' senior project requirements. Prereq: 32ENGY102. BoK: NA. Credit Hrs: 3.00

Special Topics in English
This course permits special topics instructions to be offered in the Humanities area of English. Prereq: 32ENGL490. BoK: NA. Credit Hrs: 3.00

Methods of Digital Computation
Fortran programming utilizing basic numerical algorithms with engineering applications. Prereq: 32ENGY101. BoK: NA. Credit Hrs: 3.00

Numerical Methods and Computer Techniques
Roots of equations, matrices, polynomial approximations, and finite differences, quadrature, computer solutions. Computer control, searching, and sorting techniques. Offered alt. yrs. BoK: QR. Credit Hrs: 4.00

Numerical Methods and Computer Techniques II
Continuation of 32ENSC273. Offered alt. yrs. Method matrix, eigenvalue problems, searching and sorting techniques, quadrature, numerical differentiation, error analysis, differential equations. Offered alt. yrs. BoK: QR. Credit Hrs: 4.00

Computer-aided-design; computer graphics software, representation of graphic elements, editing and transforming. Non-linear simultaneous equations, object modeling, system assembly, and mechanism design using IDEAS (3-D) CAD software. Computer-aided-manufacturing; numerical control and computer numerical control part programming, industrial robot technology and applications, robot programming. BoK: QR. Credit Hrs: 4.00

Independent Study in Engineering Science
Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Hrs: 1.00-12.00
Engineering Science

32ENSC541
Finite Elements I
Introduction to the finite element method. Truss analysis, beams, and frames. Stiffness matrices. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ENSC542
Finite Elements II
Continuation of 30ENSC541. Use of variational methods. Assembly procedures. Algorithm development. Boundary conditions. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32ENSC543
Finite Elements III

32ENSC571
Advanced Mechanics I
Review of basic mechanics. Three-dimension motion. Lagrangian and energy methods. Gyroscopic motion and nonlinear oscillations. Offered alt. yrs. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32ENSC572
Advanced Mechanics II
Continuation of 30ENSC571. Offered alt. yrs. Analytical and experimental modal analysis; single degree and multidegree of freedom systems, frequency response function analysis, proportional & non-proportional damped systems. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32ENSC573
Advanced Mechanics III
Continuation of 30ENSC571. Offered alt. yrs. Analyzing the structure, heat transfer, fluid mechanics, and acoustical vibration problems using finite element method. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

English as a Second Language

32ESL090
Introduction to Academic Reading and Writing
This workshop course is designed to introduce non-native speakers of English to the skills required for successful academic reading and writing in preparation for 42ESL100. BoK: NA. Credit Level: U. Credit Hrs: 6.00

32ESL091
Editing Skills for Non-Native Writers
A workshop course designed to assist non-native speakers to English to recognize, correct, and avoid the most common errors in their writing. This course is not open to students who are at the pre-Freshman English level. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ESL100
Academic Reading and Writing Strategies
This course is designed for advanced and non-native speakers of English who need to improve their academic reading and writing skills in preparation for Freshman English I. BoK: NA. Credit Level: U. Credit Hrs: 6.00

Fine Arts - Art

32FAA271
Basic Single-Panel Cartooning
This course will introduce students to a sampling of the techniques and devices used by contemporary cartoonists, including caricature, symbolism, exaggeration, labeling, analogy, and irony. The novice will receive a clear, comprehensive course in beginning cartooning, from drawing faces and figures and backgrounds, to learning techniques of design and composition, to learning how to generate ideas for cartoons-pictorial concepts and captions. Special attention will be given to learning how to fine-tune captions to maximize their punch line potential. Prereq: 32ENGL101. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32FAA272
Regional Arts
This course introduces students to the visual arts by visiting local galleries, visits and interactions with local artists in their studios and examination of the work in progress as well as the finished work of each artist. Upon completion of the course, students will have a clear understanding of the visual arts in the community. They will gain the ability to examine and explore a work of art with a more developed understanding of the issues that an individual work presents and the objectives of the artist. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32FAA371
Multi-Panel Cartoons and Comics
Students in this hands-on workshop style course will develop material for cartoons by keeping sketchbooks that will serve as journals for notes, observations, experiences, memories, and anecdotes which will be translated into cartoon narratives, from three-panel "gag" cartoons to many-panel stories and strips. The class will explore the rhythms of storytelling inherent in cartoon language with a focus on modeling the material in the sketchbooks into finished pieces through class critiques. The focus will be as much on storytelling, using the iconic language of cartoons, as on developing ability in drawing. Prereq: 32ENGL103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32FAA384
Digital Art: Theory and Practice
Digital art is burgeoning in networked (Web) cyberspace and new museums of art and technology. This course offers students an introduction to digital art innovations. It contextualizes digital art in relation to twentieth and twenty-first century art historical trends, and facilitates the survey of nonlinear, interactive art on the web. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32FAA386
Digital Art: Interactive Book Design
In the interactive book, words meet images in compi ex cyberspace media and online information environ ments. How can the form and structure of an inter active book intensify its content? This course of fers stduent an in-depth study of digital interactive book design. We create nonlinear narrative str ucues that traverse new media "database" configurations using authoring software. We also explore how interactive books on CD-ROM or Web embed artsic and cinematic representations within the frame work of an interactive control surface. Prereq: 32ENGL103. BoK: FA. DC. Credit Level: U. Credit Hrs: 3.00

32FAA388
Documentary Photography
An comprehensive, introductory course that explore s the theory and practice of digital photography a nd image-making, documentary photography and video, media representation in visual research, and vis ual ethnography. Students compare, interpret, index, critique, and present visual research evidence and results. Prereq: 32ENGL103. BoK: FA. DC. Credit Level: U. Credit Hrs: 3.00

32FAA389
Poster Art: Aesthetics and Propaganda
This course will explore the tensions that exist between art, propaganda and advertising. Discussions of these tensions will be framed by examining the genre of Poster Art. The course will use the Poster Art of World War I & II, together with famous public service announcements and poster ads to bring the often uneasy alliance between art, propaganda and commercialism to light. The stereotyping of national identities in the name of war and peace, together with issues of diversity and culture that such stereotyping entails, will be discussed. Theory will be put into practice by the generation of a series of assignments involving the creation of art posters. BoK: FA., SE. Credit Level: U.

H=University Honors course.
Facilities & Hospitality Management

32FHM141 Facilities Management I
This course will provide historical background and comprehensive overview of the facilities management area. The course includes a description of the positions and careers available in the field, career opportunities, and a process for exploring and securing career opportunities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM142 Facilities Management II
The course will cover the facilities management process, terminology, and organizational development. An introduction to basic methods, concepts, and procedures of facilities planning, programming, budgeting, project management, office productivity measurements, and operations management. Prereq: 32FHM141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM143 Special Topics
This course will consist of forums with business leaders from the facilities management, casino, and hospitality fields. Prereq: 32FHM141, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32FHM151 Hospitality Management I
This course surveys the hospitality industry. The students will be exposed to the career opportunities and the various issues involved in the field. The student will study hospitality operations, including room management, housekeeping, front office, security and engineering. Prereq: 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM152 Hospitality Management II
This course provides a practical approach to the system and practices used in hospitality office management emphasizing contemporary theory and information techniques. Some of the topics included in the course will be front office operations, reservation and room management, uniform service, housekeeping, security and engineering operations. Prereq: 32FHM151. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM161 Casino Management I
The course surveys the casino industry. The students will be exposed to the career opportunities in the field. The students will study the casino operations including gaming, hospitality, and security. Prereq: 32FHM142, 32FHM152. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM162 Casino Management II
The course provides the study of the unique administration and operational issues of casino management. Included in the course is the study of the casino operation, strategic management and planning, managing the guest experience, special issues involving management of casino personnel, planned management of assets, and marketing. Prereq: 32FHM161. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM175 Introduction to Customer Service
This course will cover the essential skills for anyone working in business. It will cover the following topics: listening skills, verbal and non-verbal communications, use of technology and how to handle difficult customers. It will use the case approach. Prereq: 32FHM142, 32FHM152. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Facilities & Hospitality Management

32FHM201 Facilities Systems I

32FHM202 Facilities Systems II
Building code review and applications. An overview of various types of structural systems, perimeter enclosures and interior finishes. An investigation of common construction methods. Prereq: 32FHM201. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM215 Directed Study-Facilities & Hospitality Management
This course is designed for students who require individualized instruction in Facilities and Hospitality Management. Prereq: 32FHM202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM273 Facilities Supervision
The course applies to the supervisory function of a facilities management professional. The course includes the study of supervising employees, human psychology, labor relations, organizing and delegating work, scheduling techniques, TCM, problem-solving, developing employees’ potential and long and short range planning of employment needs. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM274 Special Event Planning and Management
This course will cover the concepts in operational and marking for planning, developing, and implementing conferences, banquets, conventions, catering, and special events. Techniques for developing goals and objectives for programming large events will be covered, as well as evaluative skills. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM275 Casino Operations
The course includes the study of casino operations including the dynamics of key operational issues such as player tracking, slot accounting systems, ticket-in-ticket-out, bill validators, controlling the game operations, and the fundamentals of various aspects of the casino operation. Students will study how casinos operate as compared and contrasted with other aspects of a casino resort, the hotel, employment issues, and demographics. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM280 Hospitality Facilities Management and Design
This course will cover the cost, and management of hospitality facilities, environmental and sustainability management, safety and security, energy management, renovation and capital projects. This course will also cover the operating systems that optimizes comfort for employees, residents, and guests while reducing energy and operating costs for the owners. Prereq: 32FHM152. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM303 Facilities Systems III
An examination of water supply and waste disposal systems, plumbing code requirements, and principles of waste management. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
This course will cover the Uniform System of Accounts for the Lodging facilities operations. It will also cover software unique to hospitality the use of wireless devices such as PDAs and cell phones to manage facilities operations. Prereq: 32ARTN121. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM373 Facilities Management Law
The course includes the study of real estate law, landlord-tenant, rental and leasing agreements, premises liability, regulatory requirements such as American with Disabilities Act (ADA), Occupational Safety & Health (OSHA) laws, anti-discrimination provisions, land use planning, zoning and eminent domain, etc. Students will have opportunities for practical application of the subject matter they study, for instance the students using the floor plans, etc for a facility will plan where accessibility would be best and in compliance with the laws. Student will review lease agreements to determine what provisions would be best. Prereq: 32BLAW272, 32BLAW271, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM374 Facilities Management Information Systems
The course will cover the utilization of information technology in facilities management area. It will cover the use of wireless devices such as PDAs and cell phones to manage facilities operations. Prereq: 32IT101, 32IT209, 32FHM141, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM375 Casino Law
The course includes the study of federal and state laws that regulate the gaming industries including casinos, lotteries, and Indian gaming. Students will study concepts, definitions, taxation, regulation, liabilities, licensing, and advertising. Prereq: 32BLAW271, 32BLAW272, 32FHM161, 32FHM162. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM376 Casino Information Systems
The course will cover the study of the utilization of technology in the operational and management aspects of casinos in the accounting aspects, operational tracking, and surveillance. The course will also cover the use of wireless devices such as PDAs and cell phones to manage facilities operations. Prereq: 32IT101, 32IT209, 32FHM161, 32FHM162. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM377 Hospitality Law
The course will review business law as applied to the hospitality field-hotel, resort, spa, restaurant, and travel professionals with an emphasis on preventative law to assist in avoiding lawsuits. Prereq: 32BLAW271, 32BLAW272, 32FHM151, 32FHM152. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM378 Hospitality Information Systems
The course will cover the utilization of technology in the operational and management aspects of the hospitality industry. The course will cover the use of wireless devices such as PDAs and cell phones to manage facilities operations. It will also cover software unique to hospitality operations. Prereq: 32IT101, 32IT209, 32FHM141, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM381 Hospitality Management Accounting
This course will cover the Uniform System of Accounts for the Lodging facilities operations. It will also cover software unique to hospitality operations. Prereq: 32IT101, 32IT209, 32FHM141, 32FHM142. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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32FHM475
Gaming Techniques and Operations
and demonstrations will be provided. Prereq: 32FHM162, 32FHM275, 32FHM375. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM476
Casino Security and Surveillance
The course covers the study of security, potential loss, surveillance, crisis situations in the casino and gaming industry. Coverage includes the role of managers, and security personnel, computer fraud, available security and surveillance products and systems. Additionally, topics include strategic planning, crisis and security management techniques, surveillance operations and the practical application of the topics to a variety of situations. Prereq: 32FHM162, 32FHM275, 32FHM375, 32FHM475. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM477
Project Management
The course will cover the management of projects and include team work, sequencing of events, and budgeting. Project management software will be used. Upon completion of this course, students are qualified to take the CAPM exam to earn CAPM certification awarded by the Project Management Institute (PMI). Prereq: 32IT141, 32IT142, 32FIN371, 32STAT242. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM481
Energy Management
The course covers the area of energy conservation techniques applicable to diversified types of facilities such as hotels, schools, office and industrial complexes, apartment complexes, resorts, casinos, sports and recreational facilities. The study of energy audit and analysis as well as the implementation and payback of the energy measures will be included. Building automation systems will be included. Computer simulation will be utilized to enhance student learning. Prereq: 32FHM303, 32FHM304. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM482
Rooms Division Management
This course will cover revenue management, lodging systems, room division, and housekeeping, and loss prevention. Prereq: 32FHM381. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM483
Ethics in Hospitality and Tourism
This course will apply ethics theories to situations in various hospitality industry job areas. Topics covered: applying ethics to the purchasing, marketing and sales functions; the ethics of the food and beverage function, applying ethics to maintain environmentally sound hospitality and tourism industry. Prereq: 32PHIL371. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32FHM484
International Hospitality Management
This course will cover globalization, tourism and the lodging sector; emergence of international hotel, international human resources management and global competition. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM485
Project Costing and Estimating
The course will cover estimating techniques, cash forecasting, budgeting, present value concepts, holdbacks, capital budgeting, financing and other cost considerations for pricing projects. Prereq: 32ACCT245, 32ACCT246, 32ACCT271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FHM486
Hospitality Marketing
This course will cover revenue management, lodging systems, room division, and housekeeping, and loss prevention. Prereq: 32FHM381. BoK: NA. Credit Level: U. Credit Hrs: 3.00
32FST171 Personal Finance
Personal Financial Planning: setting financial goals; budgeting; tax preparation and planning; consumer credit; major purchases and survey of investments. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FST215 Directed Study - Finance
This course is designed for students who require individualized instruction in Finance. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST241 BUSINESS FINANCE

32FST271 Personal Finance
This course will cover foundations of financial planning. Topics covered: managing your taxes, managing cash, consumer credit, insurance and health needs, major purchases, investment planning, planning for retirement and estate planning. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FST272 Survey of Investments
The economic background of investments. Investing in federal government securities; stocks and bonds. Overview of worldwide securities markets and investment policies. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FST371 Business Finance
This course will cover investment and financing decisions, analysis of financial markets, budgeting and forecasting cost of capital. An overview of international financial management, time value of money, risk analysis in capital. Budgeting and rations analysis. Prereq: 32ACCT245, 32ACCT246, 32ACCT271. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FST372 Survey of Investments
This course will cover the concept of investing. Topics will include understanding risk and return, bond fundamentals, common stock, market indexes, convertible securities, managing the equity portfolio, mortgage-backed securities and contemporary issues. Prereq: 32ACCT245, 32ACCT246. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32FST101 English Composition I
A study of college level writing, including strategies for pre-writing, writing revising, and editing that focuses on audience and purpose and introduces concepts of critical thinking reading, writing, and information literacy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST102 Freshman Composition II
This course is the second course in the English Composition sequence. It assumes continuing improvement in the basic of the writing process, and focuses on formal argument. Students write four essays during the course, all of which will improve argument, then expand one of these papers into a research project. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST103 Freshman Composition III
Final course in English Composition sequence, emphasizing further development of critical thinking, reading, and writing skills and strategies, through the study of literature including fiction, poetry, and/or drama. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST171 General Psychology/OLFS
The course covers the general topics and basic concepts of Psychology. It gives an overview of the science and technology of the field with heavy emphasis upon every day examples/illustrations of the concept. BoK: SS. Credit Level: U. Credit Hrs: 3.00-4.00

32FST172 Fundamentals of Speech Communication
An introduction to speech composition, delivery, and audience analysis. BoK: HU. Credit Level: U. Credit Hrs: 3.00

32FST178 Algebra for OLFS
Solving equations, exponents, algebraic fractions, exponential and logarithmic functions, and inequalities. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST179 Trigonometry for OLFS
Right triangle trigonometry, vectors, solving oblique triangles, trigonometric identities, and equations. Prereq: 32FST178. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST209 Fire Tactics -- Open Learning
Fire ground tactics and strategies. Company operations, large-scale operations and special firefighting procedures. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST249 Hazardous Materials -- Open Learning
Storage, transportation, and handling of hazardous materials; emergency situations, chemical reactions, firefighting control. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST260 Industrial Fire Protection
A survey of fire protection principles for industrial processes. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST269 Fire Determination Strategies
Fire investigation; report preparation; fire scene observation; evidence analysis. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST275 Chemistry for Emergency Service Personnel
Introduction to the chemistry of hazardous material for emergency service personnel. BoK: NA. Credit Level: U. Credit Hrs: 4.00

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### Fire Science

#### 32FST276
**Chemical and Biological Warfare Agents**
This course provides information on the nature of chemical and biological warfare agents, including structure and function relationships, signs and symptoms of exposure, decontamination and prophylactic measures for protection. In addition, the course examines the potential for genetically modified biological weapons and agents based upon knowledge from cancer research, which are currently under development. BoK: NS. Credit Level: U. Credit Hrs: 3.00

#### 32FST279
**Firefighter Safety and Risk Management**
Death, injury and health statistics for emergency personnel; risk management and loss reduction. BoK: SE. Credit Level: U. Credit Hrs: 5.00

#### 32FST283
**Fire Protection Hydraulics and Water Supply**
This course provides the theoretical knowledge required for understanding the principles of use of water for fire protection. These principles are then applied in the analysis of common water supply problems. BoK: NA. Credit Level: U. Credit Hrs: 5.00

#### 32FST289
**Intermediate Composition**
Drawing from a specific topic or topics drawn from broad disciplinary fields, this intermediate level, General Education course builds upon and enhances the writing and reading skills developed in first-year writing courses (ENGL 101 & 102). The course emphasizes critical reading and writing, more advanced research and argumentative skills, and rhetorical understanding of discourse as it is used in different disciplines and discourse communities. This course will bridge students' learning about writing from the first-year sequence to more advanced writing in their chosen disciplines in upper-level courses. Prereq: 32FST101, 32ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

#### 32FST319
**Building Construction for the Fire Service**
This course will survey building construction principles and how these structures are affected and impacted by hostile fire damage. BoK: QR. Credit Level: U. Credit Hrs: 5.00

#### 32FST321
**Terrorism Awareness & Planning**
A comprehensive study of terror including technical, historical, governmental, and psychological issues for emergency management personnel. BoK: SE. Credit Level: U. Credit Hrs: 5.00

#### 32FST355
**Social Psychology for Firefighters**
The focus will be upon human behavior in social situations. Various psychological perspectives will be presented in discussions of social behavior. In addition, each major course topic will be addressed with specific attention to diversity and cultural influences and issues. BoK: SS. Credit Level: U. Credit Hrs: 3.00

#### 32FST356
**Border Crossings: Images in World Cinema**
The course will explore the meaning and legitimacy of border crossings as represented in Contemporary World Cinema. Students will attempt to consider and question categories such as exile, refugee, tourist, as well as those of invasion, war, and famine being represented and catalogued in this vibrant cinema discourse that provides an international dialogue about the things that separate and join us. Prereq: 32FST101, 32FST102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

#### 32FST360
**Special Topics in Humanities OLFS**
Periodic instruction of important or timely topics in Humanities. Repeatable up to 15 cr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

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#### 32FST361
**Resolving Conflicts in the Workplace**
Application of conflict self-management, principles, development of flexibility interpersonal relationships and conflict resolution skills BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

#### 32FST362
**Organizational Communication**
Theory and practice of system thinking, psychology and leadership and teamwork, process improvement, management and leadership; writing, speaking, group interaction BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

#### 32FST363
**Native American History**
This course provides students an opportunity to study the history of the Native Americans and the interactions between indigenous people and the larger American culture/society. The course will examine the historical, political, social and economic relations between Native Americans, the federal government, and American society in general. An understanding of these exchanges will assist students in comprehending the current state of affairs between indigenous nations and the United States. BoK: HP. Credit Level: U. Credit Hrs: 3.00

#### 32FST364
**American Short Story**
An examination of the evolution and tradition of the American short story, including the process through which stories are created. Selections include fiction of interest to firefighters and emergency service personnel. Prereq: 32FST103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

#### 32FST365
**Utopian Science Fiction**
The study of science fiction focusing on technology's effect on the search for a better society. Selections will include utopian and dystopian novels of interest to firefighters and emergency service personnel. Prereq: 32FST103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

#### 32FST367
**Technical and Professional Presentations**
Oral presentation of technical information with emphasis on historical and cultural influences on public speaking. Students will learn how to cover audience analysis research and develop support materials into rational and effective presentations. BoK: HU. Credit Level: U. Credit Hrs: 3.00

#### 32FST368
**Contemporary Global Issues**
The focus of the course will be to provide the student the opportunity to explore critical global issues like globalization, conflict, population/health and the study of the environmental and natural resources. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

#### 32FST369
**Selected Comic and Satiric Literature**
Selected readings in comic literary material. Students will gain a deeper understanding of the world through laughter and experiment with humorous writing style. BoK: HU. Credit Level: U. Credit Hrs: 3.00

#### 32FST370
**Microcomputer Applications for Open Learning Fire Service Program**
Microcomputer Applications for Open Learning Fire Service Program BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

#### 32FST371
**Statistics for OLFS**
Descriptive and inferential statistics with applications for fire science. Prereq: 32FST370. BoK: NA. Credit Level: U. Credit Hrs: 4.00

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32FST372
Calculus for Open Learning Fire Service
Introduction to calculus for Open Learning Fire Service students. Topics include limits, differentiation and integration of algebraic functions and relations with applications. Prereq: 32MATH179. BoK: QR, Credit Level: U. Credit Hrs: 4.00

32FST373
ACCESS for OLFS
Course will cover beginning through advanced features of Microsoft Access. Topics to be covered: relationships, importing and exporting data, tables, forms/subforms, queries and reports. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST374
EXCEL for OLS
Course will cover beginning through advanced features of Microsoft Excel. Topics to be covered: templates, formatting, function/formula data validation, conditional formats. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST375
Managerial Psychology for Firefighters
This course will explore the application of behavioral theory and techniques to performance problems encountered within the firefighting profession. The focus will be upon learning how to manage performance-enhancing the good while eliminating or diminishing problems. Behavior analytic, data based procedures will be employed in in-class and individual projects in order to begin developing professional competence. Lecture/discussion materials will NOT be limited to material covered in the text. Those in or moving toward leadership roles will find the course most useful. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32FST377
Hazardous Materials - Technician Level
A lectures and field experience course for hazardous materials personnel covering a broad range of safety related topics and skills. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST378
Filmic Art
An introduction to film with concentration on visual and verbal elements that create impact and viewing pleasure. Attention will be given to classic and contemporary films that best illustrate the filmic art form. Prereq: 32FST101, 32FST102. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

32FST380
Fire and Emergency Services Administration
An overview of organization and management in the modern fire service. Topics include management of equipment and personnel, fire department functions, planning, resource development, labor relations, communications, financial management, and community relations. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST381
Analytic Approaches to Public Fire Protection
Systems analysis and its use and limitations in fire protection and other professional areas. Illustrated with case studies and models using the systems approach to fire suppression and prevention. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST382
Fire Prevention Organization and Management
Examines and evaluates the techniques, procedures, programs, and agencies involved with fire prevention functions, licenses, permits, zoning, legal aspects, inspections, investigations, and planning. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST383
Fire Protection Structures and Systems
The design principles involved in the protection of a structure from fire involvement. The empirical tests and prediction procedures. Control, detection, and suppression system design practices. Fundamentals of the hydraulic design of sprinkler and water spray systems, including recent innovations. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST384
Community Risk Reduction for the Fire and Emergency Services
The sociological, economic, and political characteristics of communities and their influence on the fire problem. Review of rural and urban studies relative to public fire protection. The role of the fire department and fire prevention programs in the community. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST385
Political and Legal Foundations of Fire Protection
This course examines the legal basis for the political and social aspects of the government’s role in public safety, including the American legal system, liability, negligence, code enforcement and public sector personnel issues. Review of judicial decisions and implications of product liability cases in fire prevention are discussed. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST386
Managerial Issues of Hazardous Materials
This course will be an amalgamation of hazardous materials awareness, operations, and technical levels placed in a managerial paradigm. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST387
Fire Dynamics
This course undertakes a study of fluid mechanics and thermodynamics principles of fire propagation. The study of phenomenon of fire propagation in both fuel- and air-regulated phases dealing with the variables in pre- and post-flashover fire development. Purpose of this course is to provide a scientific study of hostile fires applying physics, chemistry, and engineering principles with the objective of quantitatively describing fire and related processes. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST388
Fire Scene Reconstruction, CSI
This course is intended to provide the student with the fundaments and technical knowledge needed in understanding the reconstruction principles, fire pattern analysis, fire modeling, fire deaths and injury analysis. BoK: NS., SS. Credit Level: U. Credit Hrs: 5.00

32FST390
Fire Service Computer Graphics
This course is designed to make student familiar with operating systems (MS-DOS) and fundamentals of computer graphics and geometric principles using the commercial software package (AUTO CAD). BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST391
Design of Fire Protection Sprinklers
This course is designed to give fundamentals of sprinkler design (all applications) using a commercial CAD package and a sprinkler design package. Prereq: 32FST390. BoK: NA. Credit Level: U. Credit Hrs: 3.00 -4.00

32FST399
Mathematics Topics for OLFS
Special topics in upper-level mathematics with applications for fire science. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST419
Building Construction II for OLFS
A continuation of Building Construction I, students will be required to identify the NFPA Building types and present these types in a seminar setting. BoK: NA. Credit Level: U. Credit Hrs: 5.00

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Fire Science

32FST450
Emergency Medical Response to Hazardous Materials
This course will explore the protocols that will be required for emergency medical technicians at hazardous material incidents. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST460
Independent Study in Humanities for OLFS
Individual research in Humanities developed between the instructor and student. Repeatable up to 15 hrs. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

32FST463
Modern Fiction
Study of selected late 19th century and early short stories and novellas of interest of firefighters and emergency service personnel. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32FST471
Safety Management
Introduction to OSHA, Worker’s Compensation, environmental, transportation, accident and product safety, risk management, policies, procedures and training. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST472
Occupational Safety Hazards Control
Introduction to plant safety, construction safety, hand/power tools, machinery, materials handling and electrical safety. Prereq: 32FST471. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST473
Introduction to Industrial Hygiene
Develop a basic understanding of anatomy, toxics, airborne contaminants, thermal hazards, radiation and noise. Prereq: 32FST472. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST474
System Safety
Overview of quality control, hazard recognition, fault hazard analysis and failure mode and effect analysis. Prereq: 32FST473. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32FST475
Construction Safety
Advanced workplace safety analysis focusing on scaffolds, electrical and concrete safety. Prereq: 32FST474. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST476
Principles of Ergonomics
PENDING BoK: NA. Credit Level: U. Credit Hrs: 4.00-5.00

32FST477
Contemporary Issues in the Fire Service
Analysis of modern factors affecting tactical decisions and administrative planning in the modern fire department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32FST480
Disaster Planning and Control
Concepts and principles of community risk assessment; regional and cooperative procedures and plans; the relationship of structural, climatic, and topographical variables to group fires, conflagrations and natural disasters; pre- and post-occurrence factors; communications; planning; organizing; coordination; command; and logistics. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST481
Personnel Management for the Fire and Emergency Services
Personnel practices and management procedures. Included are manpower planning, labor relations, recruitment, selection, testing, performance appraisals, classification, motivation, politics, and management. BoK: NA. Credit Level: U. Credit Hrs: 5.00

Fire Science

32FST482
Applications of Fire Research
Understanding of fire research programs and areas of study application. The transfer and implications of research results for fire prevention and protection programs. Foreign studies and international programs. A research matrix of problem areas and results. Technology transfer. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST483
Fire-Related Human Behavior
Dynamics of human behavior in fire incidents related to fire prevention practices, programs, codes and ordinances, concepts of role, personal invulnerability, risk and group dynamics, as related to design aspects of buildings and the mitigation effects of communications during emergencies and the conduct of post-fire interviews. BoK: SS. Credit Level: U. Credit Hrs: 5.00

32FST484
Fire Investigation and Analysis
Examination of the procedures and techniques for collection, comparison, and analysis of the physical evidence relative to the area of fire origin. Principles of evidence of ignition phenomenon and propagation variables. Legislative, economic, psychological, and sociological variables of incendiary fire. The role of insurance and government programs. Data analysis and prediction techniques, including pattern analysis. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32FST486
Managerial Issues of Hazardous Materials
This course will be an amalgamation of hazardous materials awareness, operations, and technical levels placed in a managerial paradigm. BoK: SE. Credit Level: U. Credit Hrs: 5.00

32FST488
Fire Science Portfolio
Formalized instruction in documenting life experience equal to college learning. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32FST499
Independent Research in the Fire Service
Practical research study designed around an individual student’s career in consultation with Director of Open Learning. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

History

32HIST230
American History to 1880
This course will be a historical analysis of the political, cultural, economic, and social development of the United States to 1880. It will assist students in understanding the evolution of the American national identity through an examination of America’s more recent past. BoK: HP. Credit Level: U. Credit Hrs: 5.00

32HIST231
American History Since 1880
This course will be a historical analysis of the political, cultural, economic, and social development of the United States from 1880 to the present. It will assist students in understanding the evolution of the American national identity through an examination of America’s more recent past. Prereq: 32ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

32HIST273
Battling Empire
Course charting turbulent relations between British Empire and her first colony Ireland. Focus on Ireland’s efforts to break free from UK. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

32HIST275
American Trailblazers
Americans whose discoveries, inventions and innovations influenced the direction of American life to 1900. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

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32HIST326  20th Century Trailblazers
Americans whose discoveries, inventions and innovations influenced the direction of 20th century life. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

32HIST301  History of American Culture
Historical events and representative literature, art and music. 1865 to present. Prereq: 32ENGL103. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

32HIST320  World History To 1900
The movement toward globalization the last several years has made it imperative that students contextualize the events taking place around them into a global understanding of world history and politics. This course examines world history from 1700 to 1900. The course’s approach is both global and comparative, stressing the growing interdependency of nations, regions, cultures, and economics. Prominent themes include the growth of empires, colonization, scientific and technological advances, revolutionary movements, and the interplay of politics, culture and economics. Prereq: 32ENGL103. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

32HIST322  World History Since 1900
The class provides students the opportunity to explore modern world history and understand how events, advances, and individuals, continue to shape the 21st century. The class will start with an understanding of the importance of the 1885 Berlin Conference and the high tide of Western global dominance. The course's approach to both global and comparative, stressing the growing interdependency of nations, regions, cultures, and economics. Prominent themes include the expansion of empires, decolonization, scientific and technological advances, revolutionary movements, global conflicts, ideological clashes, the collapse of the Soviet bloc, and the rise of global fundamentalism. Prereq: 32ENGL103. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

32HIST363  Native American History
This course will examine the historical, political, social and economic relations between Native Americans, the federal government and American society in general. An understanding of these exchanges will assist student in comprehending the current state of affairs between indigenous nations and the United States. Prereq: 32ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

32HIST372  History of Technology
The evolution of technology in modern Europe and the United States and its influence on social change. Prereq: 32ENGL103. BoK: HP, SE. Credit Level: U. Credit Hrs: 3.00

32HIST373  TYRANTS/PEACEMAKERS
Exploration of Nobel Peace Prize and focus on figures such as Gandhi, Martin Luther King, Jr., Nelson Mandela, etc. and ways in which private initiative triumphed over tyranny and warmongers. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

32HIST380  Investigating Historical and Professional Perspectives
This course investigates the professional development of archivists and the multiple perspectives of historiography. The class provides students an opportunity to explore the theoretical foundations of archival technologies, the development of the archival profession, and the relevance of historical interpretations of archival materials. The integration of these topics will facilitate students' understanding of the growing importance of archival technologies in the global economy. New technologies, established professional views, and knowledge of historical perspectives are merging to reshape the mission of archivists. This class explores this movement and its relevance for

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Horticulture

32HORT184  
Plant Communities of Southwest Ohio  
A survey of native plant communities of Southwest Ohio. Course develops awareness and appreciation of natural vegetative patterns and issues that threaten native plant communities; discussions and field studies of eastern deciduous forest, prairies and wetlands. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT185  
Cincinnati Summer Horticulture  
Designed for non-majors. Survey of horticulture in the Cincinnati area. Field trips and discussions concerned with commercial horticulture including greenhouses, orchards and ornamentals. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT187  
Horticulture Science I  
Survey of the plant kingdom, plant structure, anatomy, physiological functions, growth, development, and response to the environment. Field trip to be announced. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT188  
Horticulture Science II  
Human dependence on plants for existence, controlling plant environment through soil, water, temperature and light. The physical, biological, and chemical control of plant growth. Field trip to be announced. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT189  
Horticulture Science III  
Competition between cultivated plants and weeds; plants and stress factors-biotic and abiotic; sexual and asexual plant propagation; plant genetics and breeding. Field trip to be announced. Prereq: 32HORT188. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT195  
Landscape Design I  
A beginning course in landscape design, drafting and planning, emphasizing proper planning and design principles, site analysis, drafting techniques and the functional as well as aesthetic use of plant materials to complement a family residence. Individual project applying course content. Prereq: 32HORT187. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32HORT235  
Interior Plantscape  
The culture and use of foliage and flowering plants indoors, management of the interior environment for plants, plants identification and business practices for interior plantscapes. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT275  
Landscape Design II  
An advanced landscape design course building on the skills presented in Landscape Design I. Students will be assigned both residential and commercial sites that will be taken through the design process. A site analysis and master plan will be required for each site. Design skill, graphics and plant materials will be further explored. Prereq: 32HORT187, 32HORT195. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HORT276  
Plant Pathology  
An in-depth understanding of plant health management in relation to horticultural crops. Discussion topics include biotic and abiotic agents, identification, control of primary and secondary causal agents, and the cumulative impact of stress factors. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT277  
Turfgrass Management  
A comprehensive understanding of midwest turf grass culture. Discussion topics include turf grass uses, species identification, establishment, maintenance and stress control. Prereq: 32HORT187.

Horticulture

32HORT277  
Turfgrass Management  
BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT278  
Herbaceous Ornamental Plants I  
Identification, maintenance, habits of growth, use in landscaping. New cultivars and hybrid plants will also be covered. Propagation and division of plants will be addressed. Combination of class room and field studies. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT279  
Landscape Construction I  
The techniques and installation of various construction materials used in contemporary landscape features and structures, such as patio, decks, walks and steps, pools, retaining walls and outdoor lighting. Prereq: 32HORT275. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32HORT281  
Woody Ornamental Plants I  
Identification, habits of growth, and landscape use of deciduous woody trees. Theory and advice on landscape maintenance. Combination classroom and field studies. Prereq: 32HORT187. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT282  
Woody Ornamental Plants II  
Identification, habits of growth, and landscape use of evergreen woody trees. Theory and advice on landscape maintenance. Combination classroom and field studies. Prereq: 32HORT281. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT283  
Flowers, Vegetables and Lawns  
Their use in landscape, habits of growth and maintenance. Basic planning and types of forcing structures will be discussed. Theory and advice on landscape maintenance. Combination classroom and field studies. Designed for non-majors. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT284  
Tri-State Native Plants  

32HORT285  
Entomology  

32HORT286  
Soil Science  

32HORT310  
Plant Propagation  
A lecture and demonstration course comprehensively examining plant propagation and practices and their underlying principles. Plant biology, cultural practices, and the manipulation of growing environments as used in commercial production. Prereq: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT312  
Horticultural Microbiology  
An introduction to microorganisms with an emphasis on ecological interactions, especially with plants. Course includes classroom demonstrations and hands-on experience with microbiological techniques. Intended primarily for students in the Horticulture programs. Prereq: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs:
A comprehensive, practical turf management program. Prerequisites: 32HORT189, 32HORT285. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT317
Advanced Entomology
A comparative survey of external and internal morphological features of insects with emphasis on developmental, functional, physiological, and evolutionary interpretations. Prerequisite: 32HORT189, 32HORT285. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT320
Tree Fruits and Small Fruits
A comprehensive course covering biology, cultivar selection, planting, fertilization, pruning, propagation, integrated pest management of the fruits and small fruits. Discussion topics include apples, pears, peaches, walnuts, grapes, strawberries, raspberries, blackberries, blueberries, and selected uncommon fruits. Prerequisite: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT325
Vegetable Gardening
This class will acquaint students with the basic principles involved in small-scale vegetable production, including plant physiology and classification, economic importance, pest and disease management using both organic and IPM strategies, post-harvest physiology, and marketing. Prerequisite: 32HORT189, 32HORT276, 32HORT285. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HORT331
Woody Ornamental Plant III
A more in-depth look at woody plants covered previously as well as the introduction of additional species. Emphasis is on sight identification, the use, the ecology, and culture of plants as well as the integration of plants in the landscape. Students will examine plants from the standpoint of understanding the needs of the plants studied, the selection of plants to meet various site requirements and the visual impact selected plants have on those around them. Prerequisite: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT338
Landscape Construction II
An advanced course building on the skills presented in 32HORT195 and 32HORT279. Large and complex landscape construction projects will be discussed and analyzed. Issues such as materials selection, sequencing events, site supervision, cost estimating, bidding, the client and role of landscape architects will be discussed. Prerequisite: 32HORT195. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32HORT340
Wildlife in Home Landscapes
This course will cover various forms of wildlife, principles and practices of landscaping for wildlife, and wildlife management. Students will learn how to identify and attract various forms of wildlife such as hummingbirds and birds, and butterflies. Students will also learn how to deal with nuisance wildlife problems. Prerequisite: 32HORT189, 32HORT195. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT364
Plant Nutrition
This course will cover plant nutrient uptake and assimilation, functions of essential plant elements including macronutrients and micronutrients, nutrient interactions, nutrient deficiencies and toxicities, and fertilization practices of horticultural plants. Both practical and theoretical issues of fertilizing trees, shrubs, flowers, vegetables, and fruit will be addressed. Prerequisite: 32HORT189. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT378
Advanced Turf Grass Management
Factors affecting the production of high quality turf are integrated into comprehensive, practical turf management programs. Prerequisite: 32HORT277. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT379
Herbaceous Ornamental Plants II
A more in-depth look at perennial plants available to the horticultural community as well as those not commonly found. Plant families, culture and ecology are examined. Design attributes of plants including color, texture and form and the design of floral beds and borders are discussed. Prerequisite: 32HORT278. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT385
Urban Forestry
The field of urban forestry is a dynamic multidisciplinary profession. U.S. municipalities contain over 610 million urban trees. These trees require professional management using sound arboricultural techniques combined with other disciplines such as landscape architecture, urban planning, and engineering. Prerequisite: 32HORT189, 32HORT281, 32HORT282. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT410
Edible Landscaping
This course of study is designed to examine edible plants suitable for use in midwest landscapes. This course will include plant identification as well as their cultural needs, historical, design and culinary uses. Prerequisite: 32HORT189, 32HORT195, 32HORT281. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HORT416
Plant Problem Diagnostics
A detailed examination of the diagnostic process and field instruction on applying diagnostic principles to solving biotic and abiotic plant problems. Prerequisite: 32HORT276, 32HORT278, 32HORT312. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT420
Theme Gardens
A course of study designed to explore the principles and techniques of theme and specialty gardens. This course will develop an awareness of and appreciation for specialty garden styles. Students will learn the history and proper utilization of each garden style; be able to specify appropriate plant species and the technical consideration for each garden style. Prerequisite: 32HORT189, 32HORT195, 32HORT278. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HORT434
Integrated Landscape Management
All aspects of landscape management are examined in this applied, practical and comprehensive course. Major focus will be given to site analysis, plant selection, handling, installation, pruning, pest diagnostics/management, and site techniques. Prerequisite: 32HORT281, 32HORT282, 32HORT320. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT441
Landscape Design III
An upper level landscape design course integrating design skills and horticultural knowledge and focusing on plant selection. What plants to use, where and why. From the aesthetic, horticultural and maintenance viewpoints. Several projects will be assigned. Field Trips Prerequisite: 32HORT189, 32HORT275, 32HORT278, 32HORT281. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32HORT472
Plant Morphology
Systematic analysis of plant structure, form and development from embryogenesis to maturity using comparisons and generalizations based on present and fossil species and relationships of phylogeny to form and structure. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32HORT478
Horticultural Crop Physiology
This course will cover physiological processes related to growth, development and productivity of horticultural crops. The effects of various environmental and cultural factors on physiological processes will be discussed. Topics include cell structure, plant hormones,
instruments and automatic control systems  pumps, and auxiliary steam
boilers, boiler accessories, operation and maintenance of boilers, handfiring, stokers, pulverized coal, fuel oil, gas, automatic operation of boilers, boiler accessories, operation and maintenance of boilers, instruments and automatic control systems pumps, and auxiliary steam

HVAC and Stationary Engineering

32HVAC042  HVAC Equipment II
Coreq: 32EETN026. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC043  Indoor Air Quality
This intensive study is designed for building owners, facility and property managers, service contractors, administrators, school officials and environmental professionals. This course covers ways of addressing potential IAQ problems, diagnosing and remediating IAQ complaints, and measuring CO2 and ventilation effectiveness. It also covers the origin of IAQ problems as well as IAQ litigation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC046  Heating and Air Conditioning Fundamentals I
Product selection, layout, and system sizing. Drawing knowledge valuable in incorporating HVAC systems into a building project. Not a troubleshooter's course. Prereq: 32MATH021, 32HVAC031, 32HVAC041. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC047  Heating and Air Conditioning Fundamentals II
Continuation of Heating and Air Conditioning Fundamentals I (32-185-046). Prereq: 32HVAC046. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC051  Instrumentation I
Practical course dealing with selection, care and sizing of various types of pneumatic and electronic primary elements used in industry for measurement of temperature and flow of liquids and gases. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC052  Instrumentation and Control
An introduction to industrial instrumentation and control with emphasis on pneumatic controls, PLCs, and hydraulic and pneumatic circuits. Prereq: 32HVAC051. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC053  Building Automation
An introduction to the controls and servos used to automate the environmental control of buildings including pneumatic, hydraulic, and digital control. Prereq: 32EETN018. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC060  Plumbing Systems
Study of design, installation, and maintenance of plumbing systems for industrial and commercial applications. Lecture covers plumbing components, principal design features of plumbing systems, and common maintenance faults. Lab and field trip experience. Coreq: 32EETN080. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC063  General Building Maintenance and HVAC
An introductory course designed to provide a broad range of knowledge of various components utilized in heating, ventilating and air conditioning systems. Both air and water side equipment and distribution networks will be discussed in conjunction with air/water balancing and maintenance methods with emphasis on achieving occupant comfort and air quality. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

32HVAC064  General Building Maintenance and HVAC II
Continuation of Gen Bldg Main and HVAC. Prereq: 32HVAC063. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

32HVAC065  General Building Maintenance and HVAC III
Continuation of Gen Bldg Main and HVAC II. Prereq: 32HVAC064. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

HVAC and Stationary Engineering

32HVAC070  Hydra Power Mech
Industrial and mobile hydraulics, preventative maintenance, fluid maintenance, field and shop repairs, component assembly and replacement, symbolism and troubleshooting. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32HVAC080  Basic Instrumentation and Controls I
Lectures, discussions, and demonstrations to understand basic measurements and instrumentation control theory, pneumatic controls, electric controls, control systems and applications, and maintenance of instrumentation and controls. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

Information Engineering Technology

32IET010  Introduction to Computers
Introduction to computer systems, applications, word processing, and BASIC computer programming. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32IET121  Microcomputer Applications I
Topics include microcomputer operating systems, spreadsheet, word processing, and the Internet. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IET155  Fortran Programming I
Introduction to scientific programming with FORTRAN 77. Assignments of programs to be completed using interactive remote terminals. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

32IET160  Programming in C
"C" language data types, operators, control flow, and elementary I/O control, arrays and structures. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IET321  Microcomputer Applications II
A study of basic programming and database. Prereq: 32IET121. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IET455  Management in Information Technology
General management techniques and specific issues and tools for project management in information engineering technology. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IET481  Advanced Web-Based System

32IET491  Senior Design I
Capstone experience for seniors that involves their doing independent work on a project from conception to design to implementation, with guidance from a faculty advisor. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IET492  Senior Design II
A continuation of Senior Design I (32-IET491) in which students will design and develop a prototype of the capstone project. Prereq: 32IET491. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Information Engineering Technology

32ET493
Senior Design III
A continuation of Senior Design II (32ET492) in which students will complete the final version of the capstone project. Prereq: 32ET492. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32ET498
Special Topics in Information Engineering Technology
Special Topics in Information Engineering Technology. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00-5.00

32ET499
Independent Study in Information Engineering Technology
Independent study in Information Engineering Technology under faculty supervision. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

Industrial Engineering

32INDS441
Human Factors Engineering
Man and machine interaction, physiological, psychological, anthropological, climatological environment factors in design and performance. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS444
Safety and Product Liability
Design and analysis of engineering systems from the standpoint of safety and liability. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS474
Quality Control
Objectives, principles, methods, techniques including process performance, capability control, problem solving, sampling and risks in decision making. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS475
Methods Engineering
The development of manufacturing effectiveness within a physical production facility, work and design simplification techniques, standardization of workmethods, product justification techniques, motion study, predetermined motion time systems, organizing the manufacturing engineering function. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS476
Performance Controls and Work Measurements
Techniques used in the development of performance time, stopwatch time studies, performance rating and allowances, development standard data, design of labor control techniques and incentive plans, auditing procedures to maintain effective labor controls. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS481
Production Control
Major techniques used in production control; objectives, functions, organization study of forecast, production planning scheduling, service levels, production capacity control, expediting, dispatching, priority rules, shop floor control, feedback. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS482
Material Control
Major techniques used in material control; objectives, functions, organizations, study of EOQ, lead time, forecast error, order point, periodic review system, two-bin system, bill of material, product structure, aggregate inventory management, feedback, MRP, interrelationships of PIC techniques. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS499
Independent Study in Industrial Engineering
Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

Industrial Engineering

32INDS524
White Collar Productivity
Case studies with engineering applications to identify problems and develop solution alternatives for government and non-manufacturing operations. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS525
Information Systems
Structure and design of information requirements for manufacturing and servicing industries utilizing systems analysis and computers. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS526
Facilities Design
Problem analysis and design of material handling, layout, and physical storage systems. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS551
Operations Analysis I
Introduction to models of quantitative analysis used in business operations. Queuing, simulation and gaining theories. Introduction to dynamic programming. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS552
Operations Analysis II
Continuation of 32INDS551. Advanced procedures in quantitative analysis. Use of computer models and other computational techniques. Application to industrial and commercial process design. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32INDS581
Engineering Economy
Principles and techniques for making decisions between various engineering alternatives on the basis of their beneficial return on investment. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Interdisciplinary

32INTR001
First Year Experience Seminar
The "First Year Experience Seminar" is a course designed to assist students in the academic and social transitions associated with college life. The development of specific success skills such as time management, note-taking and study strategies as well as career and academic guidance will be included in this class. The course will provide an orientation to the policies and procedures of the University and of the College. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32INTR071
Study Skills and Problem Solving
Individual and group instruction in skills important to successful college work. Additional emphasis on activities to enhance critical and analytical problem solving abilities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR301
SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 32ENGL103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR302
SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved.
Interdisciplinary

32INTR302
SIFE Internship (Students in Free Enterprise)
by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 32INTR301. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR302H
Historical Perspectives In Computing
This course will cover the historical, political, ethical, legal and other issues involving the development of computer hardware, software, and communications from the 1800s to the present from a non-technical viewpoint. The individuals and companies involved that played a pivotal role will also be studied. The specific details of the various computing technologies will not be discussed, but may be investigated by the individual student. This course will ultimately explore how computers and related technology have affected our lives. BoK: HP. Credit Level: U. Credit Hrs: 3.00

32INTR303
SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 32INTR302. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32INTR304H
Home Systems: Electronic Automation et al
The course addresses basic knowledge and simplified science behind electrical and electronic home systems. It is designed to be simple enough so that Honors students without a background in technology can benefit from it, but is enriching to provide provoking thoughts on innovation and futuristic aspects of the technologies involved. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32INTR321
Systematic Innovation I: Technology, Community Service and Entrepreneurship.
In this course, which uses project based learning (PBL), experiential learning (EL) and service learning (SL) pedagogies, students working in interdisciplinary teams identify problems through community service, develop technical solutions to those problems, and propose business plans to transfer their solutions to a profitable venture. The focus is on methods of systematic innovation, the solving of real-world problems, and the development of teamwork skills for effective leadership. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

32INTR322
Systematic Innovation II
In the second course of a two-course sequence, which uses project based learning (PBL), experiential learning (EL) and service learning (SL) pedagogies, students working in interdisciplinary teams identify problems through community service, develop technical solutions to those problems, and propose business plans to transfer their solutions to a profitable venture. The course focuses on the management of innovative product development and includes topics such Market Analysis, Product Design Specification (PDS), Proposal preparations, Strategic Planning and Management for New Product for Community Service, Prototype Development, Manufacturing Requirements, and Business Plan. Prereq: 32INTR321. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

32INTR331
Systematic Innovation I Lab
This is an optional companion course to Systematic Innovations I:
Students will learn the skills necessary to design, implement, and maintain small Web sites. No previous background in this area is required other than basic computer literacy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT090 Basic Keyboarding
A beginning course in typewriting/keyboarding including keyboard mastery, developing speed and accuracy, and simple document formatting. Taught on a personal computer. Out-of-class lab work required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT091 Intermediate Personal Computer Keyboarding
Brief review of PC keyboard and techniques used in typewriting and computer entry; drills for improvement of speed and accuracy; review business letters, forms, tabulations, and manuscripts. This course is part of Fundamentals cluster. Prereq: 32IT090. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT092 Word Processing Applications
A course intended for students who wish to learn the basics of word processing as well as intermediate features such as merging, etc. Students will use current popular software programs. Out-of-class lab work required. BoK: NA. Credit Hrs: 3.00

32IT093 Presentations using Power Point
Creating effective and attractive presentations using MS PowerPoint. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT094 Spreadsheet Applications
A hands-on course intended for students who wish to learn the basics of computer spreadsheets applications as well as intermediate features such as data analysis, manipulation, and presentation. Students will learn to use spreadsheet application to impact data from and export data to other applications and databases. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT101 Computer Applications
A course in the use of the microcomputer in a professional business environment. This course includes an overview of hardware and software applications such as, the operating environment and the business software included in a typical office application (word processing, spread sheet and presentations). Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT120 Web Publishing
This is a course for non-majors that covers the design and creation of static Web sites using commonly available tools. The course includes the Web design process, user modeling, basic marketing issues and the importing of content from common office information systems software format (word-processed documents, spreadsheets, presentation and databases) for display on the Web. (IT majors should take 32IT220 Fundamentals of Web Development instead of this course). BoK: FA., NS. Credit Level: U. Credit Hrs: 3.00

32IT141 Business Computer Applications
A course in the use of the microcomputer in a professional environment. Overview of hardware and business software applications including operating environments, word processing, spreadsheets and electronic mail. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IT142 Business Information Systems
A course focusing on the support and improvement of business processes through the use of information technology. This course includes coverage of database management systems,
Information Technology

32IT142 Business Information Systems
telecommunications, networking, presentation graphics, and systems design and development. A hands-on approach to problem-solving in the business environment. Prereq: 32IT141. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IT160 Microsoft Windows
Practical hands-on experience in using some of the basic windows applications. Windows is a graphical user interface which changes menu operating systems, so that the interface between the user and the program is in a more pleasant environment for visual detail. Course is a part of Fundamentals cluster. Section "707" is an "online" course. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT170 Introduction To Information Technology
An introduction to the field of Information Technology that surveys topics related to software development, computer networking, databases, digital media, the internet and web technologies and who it is used to service the IT needs of an organization. The course also discusses professional skills required for IT professionals. Perm of Department. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT171 Programming: Logic and Methods
The art and science of writing computer algorithms is introduced without reference to any specific computer language. Course relates logical and mathematical concepts such as truth tables and set theory to computer algorithm construction. Design and development of algorithms with the aid of structure charts, IPO charts, flowcharts and pseudo-codes will be emphasized. Concepts and program design for Object Oriented Programming will be introduced. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT181 Programming Logic & Methods (IT Technical Track)
This course is an introduction to the basic concepts of programming; control structures, sequence selection iteration; terminology such as operators, expressions, assignment, functions; data structures, simple and complex, data types, variables. This includes broader issues such as development concepts, software life cycle, programming steps, basic modeling with use cases and other relevant components of the Unified Modeling Language. Project work using examples based on Visual Basic is expected. The 171 version is designed for the business tract. The 181 version was designed for the technical tract and introduces basic object-oriented concepts such as the following: encapsulation, polymorphism, inheritance. Course is part of the Fundamentals cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT191 Introduction to Microcomputers I
A course in the use of the microcomputer in a professional environment. Overview of hardware and business software applications including operating systems, word processing, spreadsheets, electronic mail. Course is part of Fundamentals cluster. Section "707" is an "online" course. Prereq: 32IT170. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT192 Introduction to Microcomputers II
Advanced discussion of microcomputers in the business environment, including database management and presentation software. Attention paid to the exchange of information between systems. Course is part of Fundamentals cluster. Section "707" is an "online" course. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT200 Computational Concepts
The emphasis of the course is in the applications of computational concepts used specifically in information technology. Students are given a range of computational topics that lead to the understanding in and the application of how, why, and where these computational concepts are applied in information technology applications. Prereq: 32IT170, 32IT205, 32MATH179. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT201 Word Processing Applications
A hands-on word processing course using WORD. This survey course will introduce students to creating, editing, and proofing documents; formatting; tables; merging; and working with graphics in a word processing document. Course is part of Applications cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT205 Computer Programming I
This is the first programming course for students with no prior programming experience. It intends to provide an introduction to the fundamental concepts of composing and running a program using a current high-level programming language. Hands-on active learning required. Coreq: 32IT171. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT206 Computer Programming II
This course is a continuation of Computer Programming I. Students will learn to write programmer defined functions, work with data structures, read and write files to and from disk, and construct programmer defined class as well as import pre-defined classes to use in their programs using a current high-level programmable language. Hands-on active learning required. Prereq: 32IT205, 32IT170. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT207 Computer Programming III
This course is a continuation of Computer Programming II. Students will learn to work with pointers and/or reference variables and implement abstract data types. Additional libraries of classes will be included for discussion and usage in programs. Other object oriented programming concepts such as function/operator overloading, inheritance, overrides, polymorphism, and class templates will be discussed. Hands-on active learning required. Prereq: 32IT206. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT209 Introduction To Database
Introduction to Database system concepts and terminology with emphasis on relational database design. Hands-on active learning required. Prereq: 32IT170. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32IT211 Introduction To Operating Systems
Introduction to Operating Systems with emphasis on the UNIX operating system. Discussions of file system, file management, command language and shell programming. Hands-on active learning required. Prereq: 32IT170, 32IT207, 32IT205. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT215 Directed Study - Information Technology
A course designed for students who require individualized instruction in the information technology area. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

32IT216 Directed Study - Information Technology
A course designed for students who require individualized instruction in the information technology area. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

32IT220 Fundamentals Of Web Development
Fundamentals of website design, creation, implementation and publication of websites using XHTML, Cascading Style Sheets and local
World Wide Web - Basic Concepts
The course is an introduction of internet and intranet concepts, terminology, tools and applications. Principal topics include SGML, HTML, XML and DHTML basics, World Wide Web, e-mail, web servers, browsers, searching and internet services. This course also includes the origins and evolution of the internet and intranets as well as a survey of current commercial products. Students will complete case studies pertaining to the course objectives. Course is part of Web Technology cluster. Prerequisite: 30IT170. BoK: NA. Credit Level: U. Credit Hours: 3.00

World Wide Web - Development Concepts
This course is a survey of Internet and intranet software development concepts and implementation. Commercial software products will be used to design and develop applications using the latest technology. Topics include a survey of Javascript, XML and HTML. Course is part of Web Technology cluster. Prerequisite: 30IT251. BoK: NA. Credit Level: U. Credit Hours: 3.00

World Wide Web - Multimedia Concepts
A survey of multimedia oriented development with emphasis on Web applications. Topics include the integration of graphics, animation, video, and sound, into user interfaces and authoring tools. Course is part of Web Technology cluster. Prerequisite: 30IT252. BoK: NA. Credit Level: U. Credit Hours: 3.00
**Information Technology**

**32IT277**
**Fundamentals of Spreadsheets**
A hands-on spreadsheet course using Lotus 1-2-3 or a Lotus clone. Intended for students who wish to learn a basic spreadsheet software program. Advanced features such as macros, graphing, and database functions will be introduced. Course is part of Applications cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT279**
**Introduction to Computers and Digital Publishing**
A hands-on course in digital publishing. Intended for students who wish to learn the basics of a desktop publishing software program. Features such as style sheets, document importation, drawing and writing tools, and printing will be introduced. Course is part of Applications cluster. Prereq: 30IT201. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT283**
**Digital Illustrating**
Offering an expanded knowledge of graphic design using draw programs this course allows students to enhance their digital publishing skills by becoming proficient in the vector environment. Drawing short-cuts and transformation methods are stressed, along with the building process for object-oriented rendering. Course is part of Applications cluster. Prereq: 30IT279. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**32IT285**
**Information Policy for Information Technology**
The course reviews information policy as it relates to access, openness, privacy, intellectual property (copyrights, trade marks), cost and benefits, security and legal issues. Included are issues pertaining to information integrity, electronic communications, and principles of ethical conduct. Students will be expected to complete case studies. Course is part of Business Management cluster. Section "707" is an "online" course. BoK: SE. Credit Level: U. Credit Hrs: 3.00

**32IT288**
**Digital Painting I**
This class will introduce students to a unique computer program that allows the user to generate traditional mediums like charcoal, oil and water color paints, crayon, pencil, pen and ink, airbrush and much more. Course is part of Applications cluster. Prereq: 30IT283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**32IT289**
**Digital Painting II**
This class will utilize the Painter 5 program in a unique but traditional setting. Students will sketch and develop illustrations and paintings while working from live models, and still lives, while learning traditional rendering skills. Course is part of Applications cluster. Prereq: 30IT288. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**32IT291**
**Database Overview**
Introduction to database system concepts and terminology with emphasis on relational database design. Concepts covered include logical and physical database structure, database management systems (DBMS), data definition, data manipulation, database query and views, query languages, graphical user interfaces, and report generation. Students complete a case study of their choice using Microsoft Access. Course is part of Database Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT293**
**C++ I - Introduction**
This course is an introduction to the basic language fundamentals of C++ technology. The focus of this course is on object-oriented concepts including encapsulation, polymorphism and inheritance using objects, classes and member functions. Course is part of Languages cluster. Prereq: 30IT181. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT294**
**C++ II - Intermediate**
This course introduces intermediate level C++ technology. The focus of this course is on graphical user interface concepts and their application. Course is part of Languages cluster. Prereq: 30IT293. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT295**
**C++ III - Advanced**
This course introduces advanced level C++ technology. The focus of this course is on software architecture, components and database programming. Course is part of Languages cluster. Prereq: 30IT294. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT296**
**Java I - Introduction**
This course is an introduction to the basic language fundamentals of Java technology. The focus of this course is on graphical user interface concepts and their application. Course is part of Languages cluster. Prereq: 30IT181. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT297**
**Java II - Intermediate**
This course introduces intermediate level Java technology. The focus of this course is on software architecture, components and database programming. Course is part of Languages cluster. Prereq: 30IT296. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT298**
**Java III - Advanced**
This course introduces advanced level Java technology. The focus of this course is on software architecture, components and database programming. Course is part of Languages cluster. Prereq: 30IT297. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT299**
**Implications In IT**
This course focuses on the impact brought upon our society by computer and its related technologies. Issues related to privacy, ethics law, encryption, copyright, computer crimes, etc, will be critically examined. Prereq: 32IT170. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

**32IT301**
**Systems Analysis and Design I**
A broad study of systems development life-cycle, from the initial stages of systems requirement analysis to the implementation of the system. Different techniques and methodologies in different development stages will be studied. Hands-on active learning required. Prereq: 32IT207, 32IT275, 32IT309. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT302**
**Systems Analysis and Design II**
The design phases of the system development life cycle. Hands-on active learning required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT303**
**Systems Analysis and Design III**
Continuation of IT302. This course is the actual application of the principles of Systems Analysis and Design which the student acquired in 30IT301, 302. The student will completely execute their own analysis and design of a computer-based system in a case study environment. Course is part of Software Development cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**32IT305**
**Brand Identity**
A professional Graphic Design Course centering around Typography, Logo Signature Marks for identity marks in the corporate and brand identity arena. the background history, hands on development, and deepened understanding will benefit a designer in any field they choose. Course is part of Applications cluster. Prereq: 30IT283. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Information Technology

32IT306
Customer Service in IT
The key to success in any organization is exceptional customer service. The purpose of this course is to provide the customer service skills to allow each person to improve customer service within their organizations. Topics include concept, customer service models, skills, empowerment, rewards and recognition, renewal (stress and burnout), communications, team building and problem handling. Course is part of Business Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT307
Interactive Animation and Design
This program has opened many doors for interactive animation and design. Static web pages become doorways to movies, audio sounds and more. This program has captured 80% of the WEB and is growing everyday. Students will have an opportunity to participate and play with vector graphic animation that is easily assembled into scenes for WEB animations and interactive CD's. Course is part of Applications cluster. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT309
Database Management
Database design using popular database packages. Tables, forms, queries, reports and building applications that automate database functions Hands-on active learning required. Prereq: 32IT209. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT310
Digital Image Editing
This intensive, hands-on course explores the vast capabilities of Adobe Photoshop, focusing on advanced manipulation techniques for photos and graphics. Participants learn to scan and enhance digital images, use layers, work with channels, and create impressive special effects using filters. Course is part of the Applications cluster. Prereq: 30IT283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT311
Business Intelligence
Data warehouse design and implementation, OLAP cubes, data transformation, reporting services. Hands-on active learning required. Prereq: 32IT309. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT313
Information Security & Privacy
Information Security and Privacy is designed to give the student an introduction to some of the following security concepts: confidential, integrity, availability, authentication, and non- repudiation. This course first examines computer security and then moves on to the broader, more applicable issue of network security. Prereq: 32IT207, 32IT275. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT314
Digital 3-D and Animation
This class will allow students to create frames and render them in 3-D, while allowing them to move freely through space in a very visual manner. These images can be used for Web Movies, 3-D Product Rendering’s, Store Walk Throughs, and much, much more. Students will be given an artistic and technical background in the program. Course is part of Applications cluster. Prereq: 30IT283, 30IT289, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT315
Systems Administration I
This course will provide the knowledge and hands-on skills necessary to manage a Local Area Network and its resources. Topics covered include server management, file and print services, disk management, system security, and user/client administration. Students will setup and manage a fully functioning computer network of systems. Hands-on active learning required. Prereq: 32IT275. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT316
Systems Administration II
Advanced study of systems administration in a computer network. This course will go beyond the basic study of systems administration into such areas as directory services, backup and recovery, clustering and load balancing, DNS, DHCP, and web services. Hands-on active learning required. Prereq: 32IT315. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT317
Network Infrastructure Development
An in-depth course covering the array of computer networking media and their associated components found in both LAN and WAN environments. Each media will be studied for its characteristics and students will obtain the skills for its implementation in the network. Physical cabling as well as wireless topics will be covered. This course utilizes a multitude of hands-on activities with various network media. Hands-on active learning required. Prereq: 32IT275. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT318
Advanced Digital Illustrating & Photo Editing
Class covers some advanced capabilities of Photoshop and Illustrator not covered in preceding classes. Tips and tricks of both programs help students to understand some step-by-step, hands-on learning that brings the programs more expert functions into a practical, everyday use. Prereq: 30IT283, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

32IT319
Network Security
This course covers the array of technologies and techniques to secure a computer network. Anticipation of network weaknesses then design the network infrastructure and policies to pre-empt potential attacks upon the network will be presented. Practical skills in router security, firewalls, virtual private networks (VPN), intrusion detection/prevention systems (IDS/IPS), and host-based security will be key components to the course. Hands-on active learning required. Prereq: 32IT317, 32IT313. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT321
Client Side Web Development
Development of dynamic websites using current scripting languages for client-side development. The course involves understanding the difference between client-side and server-side web programming. Hands-on active learning required. Prereq: 32IT220. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT322
Data Representation Technologies
This course covers methods used to represent, store, and encode data for inter-operability and re-use between computer software systems. This includes methods of transforming data between representation formats and flexible presentation. The course covers a wide range of software tools to create representations, confirm compliance to representational formats, and to transform data between formats. This course requires active, hands-on learning. Prereq: 32IT321. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT323
E-Business Fundamentals
This course will address the e-Business fundamentals and concepts to analyze and design e-Business solutions with a rapidly changing environment. These solutions include e-Business models, processes, systems, Internet strategies and security strategies. The course examines e-Business through examples, illustrations and case studies that analyze and design e-Business solutions. Course is part of Business Management cluster. Prereq: 30IT301, 30IT478. BoK: NA. Credit Level: U. Credit Hrs: 3.00
32IT324
E-Commerce
This course is designed to give students an understanding of the various types of e-commerce, implications and benefits of e-commerce, and the associated enabling technologies. The course will cover the requirements for developing an eBusiness, how to implement a website, merchant accounts, interactive gateways, product management, security and the legal and ethical issues involved in e-commerce. The students will participate in a team project to design, and implement a complete B2B e-commerce website focusing on analysis and choice of enabling on analysis and choice of enabling technologies including single or multi-tier architectures. Hands-on active learning required. Prereq: 32IT421. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT325
E-Business Systems Integration
This course examines the full spectrum of e-business/commerce systems design, integration and deployment concepts and technologies. This course helps the potential e-business/commerce manager or professional to visualize and experience the process of designing/developing an e-business/commerce system that typically includes integration and deployment. Examples, case studies, actual integration exercises, and demonstrations are explored. Course is part of Business Management cluster. Prereq: 30IT324. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT330
Digital Image Development
Focuses on the acquisition, creation and manipulation of graphical images (photographs, line art) using high level digital tools and techniques. Hands-on active learning required. Prereq: 32IT230. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT331
Introduction to Smalltalk Programming
The student will learn object-oriented concepts and the mechanisms that support them using Smalltalk. The principal topics are the Smalltalk language, object-oriented analysis and design concepts, the development of graphical user interfaces, and object-oriented patterns. Students are expected to complete projects to enhance their understanding of object-oriented programming. Available only as Independent Study with permission of Instructor. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT332
Digital Audio Development
Focuses on the acquisition, creation and manipulation of audio information using high level digital tools and techniques. Deals with production processes, including management and use of audio materials. Hands-on active learning required. Prereq: 32IT230. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT333
Digital Video Development
Focuses on the acquisition, creation and manipulation of video information using high level digital tools and techniques. Deals with production processes, including management and use of video materials. Hands-on active learning required. Prereq: 32IT332. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT341
Assembler Language I (IBM)
An introduction to assembler language coding, testing and debugging. Includes a review of suitable applications for assembler language as well as class projects in assembler language. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT342
Assembler Language II (IBM)
Continuation of IT 341. Topics include assembler language applications in file management, memory management, access methods, I/O devices and performance considerations. Offered alt. yrs. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Information Technology

32IT345
Contemporary Programming I
This course deals with advanced programming techniques and design issues relating to enterprise-wide development. Topics include advanced object-oriented programming and techniques and application testing and deployment using current enterprise application development tools and development and design methodologies. The concentration will on presentation-tier development. Hands-on active learning required. Prereq: 32IT207. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT346
Contemporary Programming II
This course deals with advanced programming techniques and design issues relating to enterprise-wide development. Topics include advanced object-oriented programming and techniques, database processing and database interfaces using current enterprise application development tools and development and design methodologies. The concentration will on middle-tier development. Hands-on active learning required. Prereq: 32IT345. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT347
Contemporary Programming III
This course deals with advanced programming techniques and design issues relating to enterprise-wide development. Topics include advanced object-oriented programming and techniques, optimization techniques, multithreading, remote method invocation, system services, security techniques, how to use attributes, metadata, and reflection, and customization using current enterprise application development tools and development and design methodologies. The concentration will on advanced features used for enterprise application development. Hands-on active learning required. Prereq: 32IT346. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT354
Web Administration
Installation, configuration and administration of commercial Web servers. Web servers, Internet security, firewall servers, proxy servers. The course cover domain creation, indexing, mail server processing, FTP, NNTP, and other protocols and an understanding of various responsibilities of web server administration. Students will have opportunities to learn how to set up web server administration. Students will have opportunities to learn how to set up a security policy, request a digital server certificate and how to administer intranet applications and web database applications. Students will also learn how to analyze various Internet/Intranet scenarios and how to suggest solutions using advanced Internet technologies. Hands-on active learning required. Prereq: 32IT275. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT361
Computer Forensics
This course introduces the learner to the concepts and techniques of computer forensics. Topics include detecting incident occurrence, data hiding through alternate data streams and steganography, incident preparation, incident response tools, scanners and sniffers, and developing a forensics methodology. Hands-on active learning
32IT361  
**Computer Forensics**
required. Prereq: 32IT315. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT371  
**Date Structures & Algorithms**
Data Structures deals with the systematic study of the most commonly occurring data structures and use of storage media in methods of representing structured data and the techniques and algorithms for operating on such data. Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT372  
**SAS Programming**
This course will introduce various aspects of computing involved in modern day statistics. The SAS package will be used as a vehicle for illustrating different types of computations, utilities and extracts. Especially geared to the applications programmer. Course is part of Languages cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT373  
**Applied Data Structures**
Applied Data Structures deals with the systematic study of the most commonly occurring data structures and their usage as a storage mechanism and a method representing structured data. The techniques and algorithms for operating on such data will be studied. Hands-on active learning required. Prereq: 32IT207. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32IT374  
**Groupware Technology**
This course provides an introduction to groupware technology concepts. Principal topics include terminology (collaboration, sharing knowledge, and replication), development -customer needs and analysis, design, implementation (forms, database, programming)/s and applications (messaging, workflow automation, approval processes, and office automation). Available only as Independent Study with permission of Instructor. Prereq: 30IT171, 30IT181. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT383  
**Hardware Architecture I**
A survey of hardware architecture concepts of both complex instruction set computing (CISC) and reduced instruction set computing (RISC) from microcomputers to mainframes. Principal topics include instructions and addressing, registers and indexing, interrupts and logic, microcode, buses, caches, memory, pipelining, superscalar, symmetrical multiprocessing, and massively parallel processors. Includes a detailed review of both Intel and Motorola microprocessors, storage devices from tape, disk, optical to redundant arrays of independent/inexpensive disks (RAID). Students are expected to complete case studies using the application of machine languages. Course is part of Computer Science Concepts cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT384  
**Hardware Architecture II**
Current and advanced research topics in hardware architecture are presented. This course would serve to provide ideas on viable topics that are emerging that have promise and applicability to the technological aspects of the business environment. Part of Computer Science Concepts cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT385  
**Data Warehousing**
Difference between OLAP and OLTP systems, designing a data warehouse, data transformation, creating and using cubes, querying cubes and applications. Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT386  
**Data Mining**
Data mining theory and techniques, including clustering models and decision trees. Using software tools to find non-apparent meaning in large amounts of data. Hands-on active learning required. Prereq: 32IT385. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT391  
**Quality Assurance and Testing**
This course presents techniques, procedures and tools used in the systems development life cycle for quality assurance testing and validation. Test plan preparation, test case development, event partitioning, designing for test-ability, software metrics and availability and selection of automated tools. Students will learn the importance of valid test procedures and practical application of them across hardware and software platforms. Course is part of Software Development cluster. Prereq: 30IT171, 30IT181. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT403  
**Software Engineering**
Software engineering processes, methods, tools and techniques are introduced in a framework of requirements generation, problem definition, analysis, design, software architecture, testing and quality assurance. Prereq: 32IT302. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT411  
**Enterprise Network Administration**
Techniques for successfully implementing and supporting network services on an enterprise scale will be covered in this course. Through hands-on job simulations and case studies, students will obtain the knowledge to perform network management on a large magnitude. Hands-on active learning required. Prereq: 32IT316, 32IT488. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT412  
**Information Architecture**
Information Architecture presents the underlying technical concepts and components to understand, analyze, design and implement systems for modern creative e-business enabled organizations. Information Architecture focuses on the structure of systems that comprise the major components, the externally visible properties of those components and their relationships. Information Architecture results in a holistic view of e-business implementation. This course includes a survey of the software architectures including host-centric, two-tier and three-tier, client server, distributed systems, WWW architectures and parallel systems. The principal topics include high level hardware, storage, connectivity related to data, voice, image and video software, networking, development tools and languages, transactions processing, web technologies and database building blocks for the future. This course is part of the Software Development cluster. Prereq: 30IT301. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT415  
**System Integration**
Hands-on study of computer networks comprised of heterogeneous operating systems and their applications. The course will focus on back-end network management and administration to enable seamless dataflow between differing computer systems. Students will follow established guidelines and best-practice techniques to create typical networks of varying operating systems and services which communicate efficiently. Hands-on active learning required. Prereq: 32IT316. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT416  
**Senior Design Project I - Networking**
Development of a prototype of a final project in Computer Networking. Projects are selected in Senior Design (IT495). Independent analysis, design, and development of a prototype under the supervision of a faculty member. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00
Creating a Successful Web Site
This course addresses technical advances in the area of Computer Networking that are not covered by other courses in the curriculum. Topics may change from one offering to the other depending on the current technological advances. Hands-on active learning required. Prereq: 32IT461. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

Management In Information Technology
General management techniques and specific issues and tools for project management in information technology. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

Operating Systems II
This course is an in-depth review of modern operating systems concepts including computing architectures and network operating systems. Principal topics include Linux, Windows 2000, NetWare and Cisco's IOS. Course is part of Computer Science Concepts cluster. Prereq: 30IT437, 30IT303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Operating Systems I
This course is a survey of operating systems concepts. Principal topics include operating systems spanning desktops to mainframes to networks such as Linux, Windows 9X, Windows NT/Windows 2000, Unix and MVS. This course includes case studies and project work. Course is part of Computer Science Concepts cluster. Prereq: 30IT437, 30IT303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Operating Systems
An in-depth review of database technology to include database applications, relational database concepts and structured query language. Students will be required to implement database applications. Course is part of Database Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Database Management Systems II
Continuation of IT451. Topics include a review of commercial database products, database modeling and design (conceptual, logical and physical), database security, backup and recovery. A review of client server and distributed database architecture. Students will be required to design and implement database applications. Course is part of Database Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Database Management Systems I
An in-depth review of database technology to include database applications, relational database concepts and structured query language. Students will be required to implement database applications. Course is part of Database Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Database Management
Course is part of Database Management cluster. Prereq: 30IT433. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Operating Systems
This course is an in-depth review of modern operating systems concepts including computing architectures and network operating systems. Principal topics include Linux, Windows 2000, NetWare and Cisco's IOS. Course is part of Computer Science Concepts cluster. Prereq: 30IT437, 30IT303. BoK: NA. Credit Level: U. Credit Hrs: 3.00
Information Technology

32IT462 Special Topics in Web Technologies
This course addresses technical advances in the area of Web Technologies that are not covered by other courses in the curriculum. Topics may change from one offering to the other depending on the current technological advances. Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT463 Special Topics in Software Development
The course addresses technical advances in the area of Software Development that are not covered by other courses in the curriculum. Topics may change from one offering to the other depending on current technological advances. Hands-on active learning required. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

32IT471 Information Systems - Design and Theory
Design and theory of integrated information systems including technology, strategic planning processes and systems development methodologies to implement information systems that are congruent with companies' business goals. Offered alt. yrs. Course is part of Business Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT472 Office Automation Systems
Design and application of office-based technologies including text processing, imaging, records management, voice, facsimile, reprographics, mainframe integration and electronic messaging to enhance administrative support and information service requirements of the corporate office. Course is part of Applications cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT475 Programming for Mobile Devices
Developing and deploying applications for consumer and embedded devices and a survey of available technologies. Hands-on active learning required. Prereq: 32IT347. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT476 Database Management Systems Technologies
Issues regarding the ongoing operation and support of database applications and support structures. Subjects and activities are those usually associated with the database administrator. Tuning, security, backup/recovery, data restructuring and application enhancement. Course is part of Database Management cluster. Prereq: 30IT452. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT477 Database Design and Implementation
Design principles for both operational database systems and data warehouses, including normalization theory, ER diagramming theory and tools, data storage. Hands-on active learning required. Prereq: 32IT311. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32IT478 Software Engineering I
Software engineering processes, methods, tools and techniques are introduced in a framework of requirements generation, problem definition, analysis, design, software architecture, testing and quality assurance. Team projects are included. Course is part of Software Development cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT479 Software Engineering II
Software engineering processes, methods and tools are applied through practice in a framework that highlights the systems engineering process, full life-cycle models and technical metrics. Team projects are utilized to strengthen concepts. Course is part of Software Development cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Information Technology

32IT480 Database Administration
Installing and configuring database servers, database security, managing database files, disaster recovery plans, replication, monitoring and optimization. Hands-on active learning required. Prereq: 32IT309. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT483 Project Management
A survey of project management concepts as applied to information technology. Principal topics include project selection, planning and business strategy; project scheduling, costs and control; interpersonal, leadership and managerial skills; quality, risk, conflict and change management. Students are expected to complete individual and team projects. Course is part of Software Development cluster. Prereq: 30IT301, 30IT478. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT484 Object-Oriented Technology
Object-oriented technology is examined with emphasis on object-oriented concepts, analysis, design, languages and implementation, databases, and networks. Students are expected to develop case studies using a commercial object-oriented tool. Course is part of Software Development cluster. Prereq: 30IT301, 30IT478. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT485 Information Engineering
A review of information engineering concepts and applications. This includes a survey of computer aided software engineering (CASE) and an implementation project. Course is part of Software Development cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT486 Knowledge Engineering
A survey of the knowledge engineering process, inference engines and knowledge bases, deduction and induction, forward and reverse reasoning, syllogisms, rules, uncertainty algebra, fuzzy variables and unknown variables. Includes practical experience using an expert system. Course is part of Artificial Intelligence cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT487 Topics in Advanced Database Management Systems
Concepts of relational database management systems will be used to introduce distributed database technologies and the adoption of the relational models to the new technology. Course is part of Database Management cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT488 Routing & Switching
Students construct network segments and learn to link the segments together with routers and switches. Once networks are connected, issues such as network interoperability, real-time network analysis, and Quality of Service (Qos) will be addressed. Further, students will learn topics of router programming and will build applications for the router. Hands-on active learning required. Prereq: 32IT317. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT489 Neural Networks
A survey of neural network products and a review of neural net applications such as pattern recognition. Topics include processing elements, input units, output units, hidden units and fuzzy logic. Includes practical experience. Course is part of Artificial Intelligence cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT490 Senior Design
The process of research, analysis and defending a senior design project, which is a capstone experience for seniors that involves their doing independent work on a project from conception to design to implementation, with guidance from a faculty advisor. Perm of H–University Honors course.

Information Technology

32IT490
Senior Design
Department. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32IT492
Information Technology for Managers
This course, taught primarily by the case method, examines the environment, objectives, and issues relating to the management of the information systems function in current business entities. It is presented in the context of several industries to illustrate and explain the similarities as well as the differences caused by competition in today’s business climate. The effect of Information Technology is examined at all levels of management (Strategic, Tactical and Operating). Course is part of Business Management cluster. Prereq: 30IT170. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT493
Senior Design Technical Practicum I
Development of a prototype of a final project in Information Technology. Projects are selected in Senior Design (IT495). Independent analysis, design, and development of a prototype under the supervision of a faculty member. Prereq: 32IT490. Coreq: 32IT496. BoK: NS, QR, Credit Level: U. Credit Hrs: 3.00

32IT494
Senior Design Technical Practicum II
Development of the final senior project in Information Technology that started in IT416. Independent development, testing, deployment and evaluation of the final project under the supervision of a faculty member. Prereq: 32IT493. Coreq: 32IT497. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT495
Senior Design
The process of research, analysis and defending a senior design project, which is a capstone experience for seniors that involves their doing independent work on a project from conception to design to implementation, with guidance from a faculty advisor. Perm of Department. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32IT496
Senior Design Project Management I
The life cycle of developing a project prototype. Students perform independent research and document and present the prototype for their senior design project. Prereq: 32IT490. Coreq: 32IT493. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT497
Senior Design Project Management II
A continuation of Senior Design Project Management I (32IT496) in which students will research and discuss issues related to project deployment, testing, client training and gathering feedback from the client. Students will document and defend their senior design project in a public forum. Prereq: 32IT496. Coreq: 32IT494. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32IT499
Independent Study in Information Technology
Please complete and submit an Independent Application form available from the College Office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

32IT571
Solid Modeling
Discussion of the construction and processing of informationally complete representations of 3D solid objects. Topics will include techniques for representing, manipulating, and displaying solid objects. Data exchange standards will also be presented. Solid Modeling is a technology fundamentally important in increasing the capability of applications such as CAD, robotics, and computer animation. Course is part of Applications cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT573
Software Engineering Applications
This application of software engineering methods, tools, and techniques are used in a life-cycle systems engineering process, including metrics, testing, and code delivery. Group project required. Course is part of Software Development cluster. Prereq: 30IT479. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32IT575
Colloquium on Information Technology
Current topics in information technology presented. This course will serve to provide ideas on viable topics that are emerging that have promise and applicability to the business environment. Course is part of Computer Science Concepts cluster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Mathematics

32MATH018
Strategies For Academic Success
Incorporation of study skills, time management and decision-making techniques, problems-solving skills, and familiarization with services offered by the College/University. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MATH021
Introduction to Technical Mathematics I
Real numbers, exponents, variable expressions, solving linear equations, applications of linear equations, graphing linear equations, solving systems of linear equations. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH022
Introduction to Technical Mathematics II
Trigonometric functions, right triangle and coordinate plane trigonometry, vectors, radian measure, graphing trigonometric functions, trigonometric identities, solving trigonometric equations, Laws of Sines and Law of Cosines, trigonometric applications. Prereq.: A score of at least 300 on the Math Placement Test or a grade of "C" or better in Tech Math I (32MATH021). Prereq: 32MATH021. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH023
Introduction to Technical Mathematics III
Algebraic fractions, polynomials, factoring, radical expressions, quadratic equations, composition of functions, inverses. Prereq.: A score of at least 420 on the Math Placement Test or a grade of "C" or better in Intro Tech Math II (32MATH022). Prereq: 32MATH022. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MATH024
Preparatory Algebra
Exponents; solving linear, literal and quadratics equations; operations with polynomials; factoring; solving systems of equations; graphing linear functions; radical expressions; rational exponents complex numbers. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32MATH031
Creative Problem Solving
This course is multi-disciplinary approach to problem solving involving mathematical and engineering technology as well as reading and writing skills. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MATH033
Trade Mathematics I
Whole numbers, fractions and decimals; principles of linear, surface, and volume measurement; percentages, averages, and estimations; basic algebra concepts; algebraic equations; powers and roots; ratios and proportions. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

32MATH034
Trade Mathematics II
Applications of shop algebra, geometry and right angle trigonometry. Prereq: 32MATH033. BoK: NA. Credit Level: U. Credit Hrs: 2.00-4.00

H=University Honors course.
This course will include operations with signed numbers, exponents, scientific notation, significant figures, logarithms, solving equations, working with formulas, dimensional analysis, and graphing. Prereq: 32MATH141. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Mathematics for the Physical Sciences
This course will include operations with signed numbers, exponents, scientific notation, significant figures, logarithms, solving equations, working with formulas, dimensional analysis, and graphing. Prereq: 32MATH141. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Statistics For The Social Sciences
An introduction to basic statistical concepts and techniques applied to problems in the social sciences. Topics include tabular and graphical presentations of data, calculations of descriptive statistics, an introduction to probability and probability distributions and an introduction to statistics inference. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Statistics for Health Sciences
The concepts of statistical models an inference applied to problems in the health sciences. Major emphasis on the role statistics plays in the Health Sciences, with the aim of giving the student an understanding of and confidence in the use of statistical techniques. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Topics in Math
Introductory Algebra topics including, but not limited to, solving linear equations, solving proportions, solving percent equations, and applications involving all of these. Also includes introductory statistics topics including, but not limited to, ways of collecting statistical data and ways of describing statistical data using tables, bar graphs, the mean, the median, and the standard deviation. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Topics in Math I
Mathematics used in Management Science, topics include using graphs and digraphs to model various management problems like the traveling salesman problem and problems in planning and scheduling, and linear programming. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Topics in Math II
Statistics: The Science of Data, topics include appropriate ways of collecting data and describing data, the laws of probability, and methods of statistical inference. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Topics in Math III
Fair division and apportionment, growth and form, the size of populations, measurements, measuring the universe with telescopes, and patterns. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Math For Culinary Science I
This is an introductory course designed to provide proficiency in and an understanding of mathematical concepts required to successfully complete the coursework for a career in the culinary field. It includes an overview of topics such as: ratios and proportions, measurement systems, dimensional analysis, exponents and scientific notation, algebraic manipulations, equation solving, basic logarithms, and reading and interpreting graphs, charts and tables. Special emphasis will be placed on the development of critical thinking skills necessary to make decisions about how and when to apply the mathematical concepts. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Math For Culinary Science II
This course will be a continuation of Math for Culinary Science I. An emphasis will be placed on applications and problem solving using the

H=University Honors course.
Mathematics

32MATH162
Math For Culinary Science II
Skills obtained from part one of the course. Students will also be required to work on group projects. Topics will include data collection, spreadsheets, curve fitting, systems of equations, basic geometry, and interpreting statistical and probabilistic information. Prereq: 32MATH161. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH170
Problem Solving
This course satisfies the General Education math requirement of the College of Evening and Continuing Education. Problem solving strategies emphasize understanding the problem, devising and carrying out the plan of solution, examining the solution obtained, and presenting written solution. Prereq: 32MATH133. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH173
College Algebra I
Equations, inequalities, Cartesian coordinate system, graphs of polynomial functions. Prereq: 32MATH134. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH174
College Algebra II
Rational functions, conic sections, exponential and logarithmic function, systems of equations and inequalities. Prereq: 32MATH173. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH176
College Algebra (Accel)
Exponents, logarithms, polynomials, rational functions, equations, inequalities, graphing. Exponential and logarithmic functions. Selected other topics. Prereq: 32MATH134. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH178
Algebra and Trigonometry I
Introduction to functions and their graphs, solving equations algebraically and graphically, radian measures and applications, graphs of circular functions, oblique triangles, vectors, complex numbers, trigonometric functions; and right angle trig. Prereq.: A score of at least 450 on the UC Math Placement Test or successful completion with a "C" or better in Intro to Tech 3 (32MATH023). BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH179
Algebra and Trigonometry II

32MATH180
College Algebra and Trigonometry
Exponential, logarithmic, and trigonometric functions and their graphs. Polynomial functions, matrices, inequalities, rational functions, vectors, progressions, complex numbers. Trigonometric identities and equations; solutions of triangles. BoK: QR. Credit Level: U. Credit Hrs: 5.00

32MATH181
Trigonometry
Rational functions, conic sections, trigonometry. Prereq: 32MATH174. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MATH215
Direct Study-Math
This course designed for students who require individualized instruction in mathematics. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-3.00

32MATH217
Direct Study-Math
This course designed for the student who requires individualized instruction in mathematics. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-3.00

32MATH225
Finite Mathematics and Calculus I

32MATH226
Finite Mathematics and Calculus II

32MATH227
Finite Mathematics and Calculus III
Derivatives of logarithmic and exponential functions. Definite and indefinite integrals. Partial derivatives, application of functions of several variables, solutions to first order differential equations. Prereq: 32MATH226. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MATH228
Algebra and Finite Mathematics
Algebra review, modeling techniques, systems of equations, linear programming, and matrix algebra. BoK: QR. Credit Level: U. Credit Hrs: 5.00

32MATH229
Concepts of Calculus
Limits, continuity, differentiation, rates of change, marginal analysis, elasticity of demand, curve sketching, optimization, and integration. Prereq: 32MATH228. BoK: QR. Credit Level: U. Credit Hrs: 5.00

32MATH244
Calculus I
Study of differential calculus with topics to include: limits, continuity, rules for differentiation, curve sketching, partial derivatives, and applications of the derivative including optimization methods and related rates. Prereq.: A grade of "C" or better in either Algebra & Trigonometry II (32MATH179) or College Algebra & Trigonometry (32MATH180) before entering this course. BoK: QR. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH245
Calculus II
A study of integral calculus with topics to include: Riemann sums, area approximation, definite and indefinite integration, techniques of integration, applications (volumes, work, fluid force and pressure, and centers of mass), and hyperbolic functions. Prereq.: Calculus I (32MATH244). A grade of "C" or better in Calculus I. BoK: QR. Prereq: 32MATH244. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH251
Calculus and Analytic Geometry I
This course covers the topics of functions, limits and continuity, the derivatives of algebraic and transcendental functions, rules of differentiation applications of the derivative, anti-differentiation and an introduction to integration and Riemann Sums. Prereq.: Grade of C or better in 32MATH179 or 32MATH180, or score of 670 or better on Placement Test. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 5.00

32MATH254
Calculus I Tech Lab
Topics of Calculus I covered from a technological perspective using computer software and graphics calculators. Limits, continuity, differentiation, integration and applications. Coreq: 32MATH244. BoK: NA. Credit Level: U. Credit Hrs: 1.00
Mathematics

32MATH255  
Calculus II Tech Lab  
Topics of Calculus II covered from a technological perspective using computer software and graphics calculators. Differentiation and integration of exponential, logarithmic and trigonometric functions, techniques of integration. Coreq: 32MATH245. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32MATH271  
Discrete Mathematics I  
A course designed for students in the computing technology program. Includes topics in logic, algorithms, number systems, switching circuits, proofs, set theory, vectors, matrices, and mathematical induction. Prereq: 32MATH179 or 32MATH180. A grade of C or better in 32MATH179 or 32MATH180. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH272  
Discrete Mathematics II  
A continuation of 32MATH271 with topics in counting principles, probability and probability distributions, Boolean algebra, logic networks, recurrence relations and recursion and matrices. Prereq: 32MATH271. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MATH371  
Probability and Statistics  
Descriptive statistics, normal distribution, sampling theory, hypothesis testing, confidence limits, regression and correlation, ANOVA. Prereq: 32MATH179. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MATH376  
Vector and Matrix Algebra  

32MATH381  
Advanced Technical Calculus  
First and second order differential equations, harmonic motion, matrices, Laplace transforms, trigonometric Fourier series. Prereq: 32MATH245. BoK: QR. Credit Level: U. Credit Hrs: 4.00

Mechanical Engineering

32MECH371  
Kinematics  
Geometry of constrained motion; motion analysis of linkages, gears and gear trains; synthesis of mechanisms. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH372  
Dynamics of Machines  
Static and dynamic forces in mechanisms; flywheels; balancing rotating and reciprocating elements; energy methods in analysis and synthesis. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH373  
Engineering Thermodynamics  
Extension of basic thermodynamics to applications in mixtures, cycles, chemical reactions, availability, and other topics. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH374  
Machine Design  
Principles of design applied to machine elements; strength and rigidity of machine members; principles of machine construction. Offered alt. yrs. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32MECH375  
Measurements  
Introduction to measurement engineering; systems and components; static and dynamic responses. BoK: QR. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.  
BoK (Breadth of Knowledge) Coding.  
DC: Diversity & Culture.  
EC: English composition.  
FA: Fine Arts.  
HP: Historical Perspectives.  
HU: Humanities.  
LT: Literature.  
NS: Natural Sciences.  
QR: Quantitative Reasoning.  
SE: Social & Ethical Issues.  
SS: Social Sciences.
Mechanical Engineering Technologies

32MET010  Industrial Rigging And Safety
Lecture and lab on the study of slings and special lifting devices used to suspend a load from a hoist. The study includes how to calculate the weight and the center of gravity of a load and how to determine the safe load rating of the components used for lifting the load. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET011  OSHA 30 Hour Industrial Safety
Lecture and lab on basic safety topics needed in industry including an introduction to OSHA requirements, personal protective equipment, machine guarding, lockout/tagout and selected other topics that will best serve the class needs. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET012  Industrial Hydraulics and Pneumatics
Lecture and lab on basic fundamentals of hydraulics and pneumatics, which includes fluid pressure, pumps, containment, valves, and associated concepts for an industrial mechanic. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET013  Industrial Equipment Maintenance
Lecture and lab on lubrication, bearings, belt drives, mechanical drives, vibration, alignment, and associated concepts for an industrial mechanic. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET015  Occupational Safety & Health Standards for the General Industry
This course covers OSHA policies, procedures, and standards, as well as general industry safety and health principles. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET016  Hazardous Materials
This course covers OSHA General Industry Standards and integrates materials from other consensus and proprietary standards that relate to hazardous materials. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET025  Machinery and Machine Guarding Standards
This course provides the student with an overview of various types of common machinery and related safety standards. The course also provides guidance in recognizing hazards such as those created by points of operations, ingoing nip points, rotating parts and flying chips or sparks, and provides some options to achieve abatement. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET035  Electrical Standards
This course is designed to provide the trainee with an overview of electrical installations and equipment. Emphasis is placed on controlling electrical hazards by the application of OSHA standards and the National Electrical Code. Topics include grounding requirements and overcurrent protection for both portable and fixed equipment. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET045  Trainer Course for the General Industry Standard
This course is designed for students in the private sector who are interested in teaching the 10- and 30-hour general industry safety and health outreach program to their employees and other interested groups. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET053  Solid Modeling
For the professional. See 32-195-375. Not for degree credit. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET061  Basic CAD/2D
Introduction and overview of computers, microcomputers, computer-aided drafting; overview of DOS as it relates to commercial CAD

H=University Honors course.
Mechanical Engineering Technologies

32MET095  Fundamentals Engineering Prep-FTP
material properties, fluid electricity, thermodynamics. Specific engineering disciplines will not be covered. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MET098  Special Topics in Mechanical Certificates
Periodic introduction of important new topics in the Mechanical certificate programs. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MET099  Independent Study in Mechanical Certificates
Opportunity for student to pursue topics of individual interest relevant to Mechanical certificate program goals. Open to student only upon successful written petition. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MET140  Statics

32MET160  Technical Problem Solving with MATLAB/EXCEL
This is an introductory course in problem solving using Excel and Matlab. I/O control, arrays, scalars, vectors, matrices, conditional statements will be covered using macros and built in functions of both softwares. 2-D plotting and iterative programming will also be covered. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET171  Engineering Design Graphics I
Freehand sketching; isometric sketching, creation of 3-dimensional geometric models, orthographic projection, sectioning, auxiliary views, dimensioning, ANSI standards, creation of graphs and charts. Lec and lab. Coreq: 32MATH178. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET172  Engineering Design Graphics II
Continuation of Engineering Graphics I. Geometric dimensioning and tolerancing, selection of fits and tolerances, weldments, casting, screws and threads, working shop drawings, assembly drawings, bill of materials. A design project from concept sketches to final drawings. Lec and lab. Prereq: 32MET171. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET210  Introduction to Thermosciences

32MET215  Thermodynamics
Mechanical Engineering Technologies

32MET330
Fluid Mechanics

32MET340
Dynamics
Two-dimensional motion of particles and rigid bodies. Equations of motion in kinematics and kinetics; translation, rotation and plane motion; work and energy methods; impulse and momentum. Applications and the dynamics of machinery. Lecture and problem session. Prereq: 32MET140, 32MET260. Coreq: 32MATH381. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00

32MET344
Applied Stress Analysis
Advanced topics in mechanics of materials, with emphasis on analysis and design of thick-walled pressure vessels. Applications of ASME Pressure Vessel Codes and other recognized national and international design standards. Foundations of finite element analysis. Prereq: 32MATH381, 32MET270. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET346
Applied Mechanics I

32MET347
Applied Mechanics II
Continuation of Applied Mechanics I. Prereq: 32MET346. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET350
Motion Control
Course focuses on the study of control system modeling and analysis. Use differential equations and transfer functions to model system, use theory and equipment to analyze system performance, and use software to simulate and design system. Software usage: MATLAB and simulink. Prereq: 32MET340, 32MFTN260, 32MATH381. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

32MET355
Concurrent Engineering
Design for manufacturing and assembly. Methods for the design and manufacturing groups in an organization to work together to produce a faster, less expensive and higher quality product. Example designs will show how multi-disciplinary teams can create and produce improved products using meetings, and other communication techniques computer data bases, and internet and intranet sessions. A final paper or project will demonstrate an application chosen by the student. Technical Elective approved for all MET options (M,D,E). BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MET365
Introduction to Nanotechnology
The main goal of this introductory course is to gain a state-of-the-art understanding of nanotechnology in the context of the issues surrounding it and the history preceding it. In this aspect, a working knowledge of the basics in some areas of nanotechnology will be introduced with emphasis on nanomaterials, and nanobiomedical applications. The course will include an introduction, brief history of nanotechnology, fabrication of nanoparticles; buckyballs and carbon nanotubes; characterization techniques using (SEM), (TEM), (SPM) and (AFM), concept of nanofluids and smart structures. Perception of nanobiomedical (nanoimplants, nanocarriers in drug delivery, biosensors, DNA-based nanostructures, cellular and tissue

H—University Honors course.

Mechanical Engineering Technologies

32MET392
Fundamentals of Intellectual Properties
it for use by others. Primary emphasis is on patents and patentable
subject matter. Ethical issues relating to intellectual property. Tech.
Option D, E. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MET395
Advanced Topics by International Visitor
An international visitor will be selected to conduct a technical elective
on a topic of his/her expertise after submitting the syllabus to the MET
Faculty in a selection process. The material level will be junior/senior
with the only prerequisite requirements being all sophomore courses.
The visitor and topic will be known by March for the summer. BoK: DC.
Credit Level: U. Credit Hrs: 3.00

32MET415
Thermal Environmental Systems
Application of thermodynamic principles in environmental control;
heating and cooling load calculations. Psychrometrics. Design of heating
and cooling systems: steam, water, and air. Air duct design and fan
selection. Project work in design analysis of heating and cooling loads
in current building practice. Lec. and lab. Prereq: 32MET210. BoK: NS,
QR. Credit Level: U. Credit Hrs: 4.00

32MET420
Power Plant Technology
Study of power plant components: steam generators; turbines;
feedwater heaters; cooling towers. Analysis of combustion products and
pollutants, air and water pollution control. Design and computer
simulation of power generations systems. Prereq: 32MET330. BoK: NA.
Credit Level: U. Credit Hrs: 3.00

32MET421
Energy Systems
Study and comparisons of alternative large-scale energy sources: fossil
fuels, shale, synthetic fuels; biomass, wood, solar, wind, ocean, hydro,
fission, fusion. Availability of resources, status of technology, costs,
environmental effects. Tech. Option E. Prereq: 32ECON286,
32MET215, 32PHYS182. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET425
Combustion Engines
Extended study of internal combustion engine power cycles. Analysis of
Otto, Diesel, Brayton, and Stirling cycles, including turbocharging,
preheating and other cycle enhancements. Alternate fuels. Influences of
pollution control devices. Exploration of advanced engine technology.
Credit Hrs: 3.00

32MET426
Fundamentals of Nuclear Energy
Basic principles of atomic and nuclear structure. Naturally radioactive
and stable nuclides, radioactive decay; shielding principles, structural
and biological effects. Introduction to fission and fusion power
processes. Tech. Options E. Prereq: 32MET381, 32MET215,
32MET340, 32PHYS182. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET435
Turbomachinery
Practical design analysis of rotating machinery which operates with
incompressible and/or compressible fluids: impulse and reaction
turbines, centrifugal pumps and compressors, axial flow compressors,
pumps and turbines. Tech. Option D, E. Prereq: 32MET330,
32MET340. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET440
Mechanical Vibrations
Free and forced, damped and undamped vibrations, equations of
motion: LaGrange equations, natural frequencies and resonance.
BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Mechanical Engineering Technologies

32MET490
SENIOR DESIGN SPECIFICATIONS
Objectives, technical specifications, time schedule and proposed budget. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET491
SENIOR SEMINAR
Definition of complex engineering problems; analysis of the design/fabricate/test process; technical management of complex mechanical projects; time scheduling; cost estimating, budgeting, and cost control. Students will prepare an acceptable proposal for the Senior. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET492
Senior Design Project I
Together with Senior Seminar and Senior Design Project II, the baccalaureate thesis. Students will execute an independent design-and-build project of substantial technological sophistication, based upon a project plan completed in Senior Seminar. Work in Senior Design Project I will normally include completion of a literature survey, working and assembly drawings, bill of materials, software flowcharts and regular reporting to a faculty project. Prereq: 32MET491. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MET493
Senior Design Project II
A continuation of Sr Design Project I (32MET492): completion of the baccalaureate thesis, including proof-of-design, working demonstration and documentation. Students will prepare a professional quality written and bound report and will deliver an oral presentation and defense of the design thesis project. Approval of faculty advisor and department head to enroll. NOTE: Sr. Seminar, Sr. Design Project I & II are considered one continuous course. All grades will be issued upon completion of the sequence. Prereq: 32MET492. Coreq: 32ENGL493. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MET495
Fundamentals Engineering Prep
This course will help students prepare and review for the FE exam. The subjects in this course will serve as ONLY a review. This course contains brief reviews of: engineering math, probability & stats, chemistry, computers, ethics, economics, engineering mechanics, material properties, fluid electricity, thermodynamics. Specific engineering disciplines will not be covered. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32MET498
Special Topics in Mechanical Engineering Technology
Periodic introduction of important topics in the fields of mechanical design, energy systems and manufacturing. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MET499
Independent Study
Open to students only upon successful written petition. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MET511
Heat Transfer II
Extension of convective heat transfer to forced convection systems, particularly those with complex geometries. Application of the transient temperature technique to determine the heat transfer and fluid flow properties of complex systems in the flow regime of practical interest in air moving equipment (ventilation, heating, and cooling). 50% lab work. Tech Option E. Prereq: 32MET315. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

32MET512
Heat Transfer III
Further techniques to determine the pertinent properties required to characterize convective heat transfer in complex geometries. In addition, fundamentals of radiative heat transfer. 50% lab work. Tech Option E. Prereq: 32MET511. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Manufacturing Engineering Technology

32MFTN101
Machine Tool Fundamentals I
Fundamentals of milling, lathe operations, cutter sharpening practice to provide reference material that may be of the broadest usefulness. Prereq: 32WLTN010, 32MATH021. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN11
Machine Tool Fundamentals II
Drilling machines, planers, shapers, and all types of precision grinding machines. Basic operations performed, cutting tools used, set-ups, attachments used, proper care of equipment and safety precautions. Touches on N/C applications to machine tools. Prereq: 32MFTN010. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN21
Art Applications in Joining
The object of the course is to give students the ability to choose and apply realistic machining principles. The course discusses material characteristics related to machinability, tool materials and machining parameter calculations, covering methods, such as turning, drilling, broaching, grinding, honing and lapping. The course additionally gives an overview of machining economy, automation and nontraditional machining methods. Material Fee. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN23
Art Applications in Cast & Form
The object of the course is to give students the ability to select and apply appropriate manufacturing methods for work having modest accuracy requirements. The course reinforces materials science associated with solidifying and heat treatment. Various state of the art casting, forging, forming, stamping, piercing and bending, methods are analyzed both from a manufacturing and design perspective. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN301
Introduction to Lean Manufacturing-FTP
This course is for the professional. The course is designed to give the student the understanding of the five principles of Lean: value, value stream, flow, pull and perfection. The techniques for achieving Lean are presented: Waste, visual management, standards, Just-in-Time, developing defect free process, human involvement, Lean planning and the lean culture. Contemporary and lean manufacturing are contrasted. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN401
Introduction to Lean Manufacturing-FTP
This course is for the professional. The course is designed to give the student the understanding of the five principles of Lean: value, value stream, flow, pull and perfection. The techniques for achieving Lean are presented: Waste, visual management, standards, Just-in-Time, developing defect free process, human involvement, Lean planning and the lean culture. Contemporary and lean manufacturing are contrasted. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Manufacturing Engineering Technology

32MFTN045  Industrial Plastics Technology
Survey of properties, characteristics, and applications of synthetic thermoplastic and thermo-setting materials, composite materials; durability, design guidelines, testing practices. Prereq.: Basic knowledge of introductory chemistry, engineering materials, and design principles. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN050  Inspection
General field of inspection analyzed: line inspection, final assembly, gauges, use and reading of micrometers, vernier calipers, indicators, etc. Threads, surface finish and shop terms discussed. Prereq: 32MATH021. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN054  Coordinate Measurement Machine (CMM) Operations
Introduction to CMM methods, operations, and applications including: blueprint interpretation, inspection techniques, geometric dimensioning and tolerancing, repeatability and reproducibility analysis, and reverse engineering methods. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN055  LATHE AND DRILL FUNDAMENTALS
Lecture and laboratory instructions on basic fundamentals of lathe operations which include safety, operation, set-up, tool selection, and standard shop procedures associated with the engine lathe. This course is coordinated with Lathe and Drill Operations (32MFTN056), which should be taken concurrently. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN056  LATHE AND DRILL OPERATIONS
Laboratory instructions on lathe and drilling operations applying the knowledge gained in Lathe and Drill Fundamentals. The lathe and associated tools will be used to produce personal machinist tools as lathe operational skills are developed. Lathe and Drill Fundamentals (32MFTN055) must be taken concurrently unless waived by the department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN057  Milling and Grinding Fundamentals
Lecture and laboratory instructions on the basic fundamentals of milling and grinding operations which include safety, operation, set-up, tool selection, and standard shop procedures associated with the milling machine and surface grinder. This course is coordinated with Mill and Grind Operations (32MFTN058) which must be taken concurrently. Coreq: 32MFTN055. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN058  Milling and Grinding Operations
Laboratory instructions applying the knowledge gained in Mill and Grind Fundamentals. The milling machine, surface grinder, and associated b tools will be used to produce personal machinist tools as operations skills are developed. Mill and Grind Fundamentals (32MFTN057) must be taken concurrently unless waived by the department. Coreq: 32MFTN057. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN059  Advanced Machine Tool Operations
Advanced skills development laboratory using the lathe, milling machine, surface grinder and the associated tools. Both the Lathe and Drill Operations as well as Mill and Grind Operations are prerequisites to take this class. The student will choose the project to make in this lab. Prereq: 32MFTN058, 32MFTN055. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN060  Machine Tool Operations I
To achieve an understanding of the functions and operations of machine tools used in conventional machining. To develop familiarity with basic inspection methods and gages used in conventional machining. Prereq: 32MATH034, 32MET070, 32MFTN050,
Manufacturing Engineering Technology

32MFTN099
**Independent Study in Manufacturing Certificates**
successful written petition. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

32MFTN131
**Principles of Joining**
The objective of the course is to give student the ability to choose and apply feasible joining processes. The course covers basic material science including jointing and solidification, hardness, stress-strain curves and phase diagrams, together with joining processes such as welding, brazing, soldering, joining and riveting and gluing. Coreq: 32MATH178, 32MFTN141. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32MFTN132
**Principles of Machining**
The objective of the course is to give the student the ability to choose and apply feasible machining principles. The course discusses material characteristics related to machinability, tool materials and machining parameter calculations, covering methods, such as turning, milling, drilling, broaching, grinding, honing and lapping. The course additionally gives an overview of machining economy, automation and nontraditional machining methods. Coreq: 32MFTN142, 32MATH178. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32MFTN133
**Principles of Casting and Forming**
The objective of the course is to give the student the ability to select and apply appropriate manufacturing methods for parts having modest accuracy requirements. The course reinforces material science associated with solidifying and heat treatment. Various state of the art casting, forging, forming, stamping, piercing and bending, methods are analyzed both from a manufacturing and from a design perspective. Coreq: 32MATH178. BoK: NA. Credit Level: U. Credit Hrs: 2.00

32MFTN141
**Principles of Joining Laboratory**
The object of the course is to make the students familiar with basic joining operations on a hands on level. The laboratory assignments cover SMW-welding, MIG-welding, TIG-welding, spot-welding oxy-fuel welding and brazing. Coreq: 32MATH178, 32MFTN131. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32MFTN142
**Principles of Machining Laboratory**
The objective of the course is to make students familiar with elementary machining on a hands on level. The project assignments include turning, milling, tapping, grinding, alignment, and basic metrology. Coreq: 32MFTN132, 32MATH178. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32MFTN143
**CAM-Applications Laboratory**
The objective of the course is to make the student familiar with the hands on use of computer aided manufacturing tools in the machining of various three dimensional shapes. The projects give an introduction to commercial state of the art CAM-packages, and gives an ability to revise programs based on ISO standardized G and M codes. Additionally, the course demonstrates the application of CAM in the manufacture of elementary castings. Prereq: 32MET171, 32MFTN142, 32MET117, 32MET172. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32MFTN210
**CNC Technology**
The objective of the course is to make the students familiar with the use of full scale state of the art CNC-machines. The course covers canned cycles, tool offsets, machine specific coordinate systems, multi-axis machining, machine tool designs, tool wear control, CAM programming, machine tool drives and post-processing. The course includes programming and machining. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Manufacturing Engineering Technology

32MFTN214
**Sequencing and Fixturing**
The objective of the course is to give the student the ability to plan and design a manufacturing sequence for accurate and complex parts. The course discusses geometric tolerancing, machining forces, deformations, vibrations, fixturing, metrology and nontraditional manufacturing methods such as chemical machining, electro-chemical machining, laser machining, water jet machining, and electric discharge machining. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN216
**Manufacturing System Design**
The objective of the course is to give the student the ability to design a manufacturing system or cell, producing specific parts or products. The course is conducted in the form of a manufacturing unit design project, covering sequencing, tool and machine tool selection, work organization and layout planning, basic ergonomics, cellular inventory management, continuous improvement, and cost analysis. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN235
**Statistical Quality Control**
Practical industrial applications of statistical techniques in quality control: control charts, accepted sampling, cost and legal implications of quality decisions; process control from product inspection data; analysis of inspection measurements; predictive models and simulation. Tech Option D, E, M. Prereq: 32MATH171, 32MFTN131, 32MFTN132, 32MFTN133. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN250
**Material Science**

32MFTN260
**Logic Devices**
Course objective: to give the students the ability to automate industrial processes by using PLC's. Course focuses on binary pneumatic, hydraulic and electric (solenoids and elementary AC and DC motors). Feedback is registered through binary sensors and limit switches. Concepts covered: specifications, flow charts, user interfaces, allocation lists, wiring diagrams and system structured programming, giving hands-on practice in designing, programming and documenting PLC-based systems. Lec and Lab. Prereq: 32ELTN278, 32ELTN288. BoK: NS. Credit Level: U. Credit Hrs: 4.00

32MFTN280
**CNC Systems**
Planning, development, and implementation of robotic workcells: layout and CNC programming of integrated manufacturing systems containing computer-controlled machine tools, robots, gauging, fixturing, and other automation components. Introduction to human factors in automation. Lec. and lab. Prereq: 32MFTN250. BoK: NS. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Manufacturing Engineering Technology

32MFTN335
Six Sigma
Six Sigma is a professional survival must! The course will cover topics such as: The Rolled Throughout Yield, Review of Shewhart Control Charts, Review of Process Capability, Overview of Quality Functional Deployment, Overview of Failure Mode & Effect Analysis, Overview of Design of Experiments and the Idea of The Dynamic Mean. Technical Elective approved for all options (M, D, E). BoK: QR. Credit Level: U. Credit Hrs: 3.00

32MFTN340
Introduction to Lean Manufacturing
The course is designed to give the student the understanding of the five principles of Lean: value, value stream, flow, pull and perfection. The techniques for achieving Lean are presented: Waste, visual management, standards, Just-in-Time, developing defect free process, human involvement Lean planning and the lean culture. Contemporary and lean manufacturing are contrasted. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MFTN342
Materials Science II

32MFTN345
Engineering Plastics
Introduction to the nature, properties and chemistry of synthetic thermoplastic and thermosetting materials; composite materials; durability, design guidelines, testing practices. Applications in consumer goods, industrial products, transportation. Tech. Option D,M,T. Prereq: 32CHEM174, 32MET270, 32MFTN131. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN347
Plastics Processing
Manufacturing processes used in the production of thermoplastic, thermoset and composite consumer goods and industrial products: production equipment, tooling, finishing, processing conditions. Tech. Option T,E,M. Prereq: 32MFTN131, 32MFTN132, 32MFTN133, 32MFTN345. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN349
Forming Theory & Practice
This course is designed to give the student an overall knowledge of metal forming, shearing, punching and forming tooling as it is used in industry. Lecture and test materials will discuss the application of this information and how it is used by the product engineer, manufacturing engineer and shop personnel. Information on product liability will be included. The course will be broken into lecture and problem solving classes. Tech. Option M. Prereq: 32MFTN133, 32MET172. Coreq: 32MFTN250. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN350
Metrology
Theory of dimensional measurement, uncertainty, sampling plans, statistical data analysis; national standards and shop calibration of measuring instruments; automated inspection methods and practices in unmanned manufacturing, introduction to machine vision, optical tactile sensors, applications in feedback control of machine tools. Lec & Lab. Tech Option M. Prereq: 32MATH371, 32MATH381, 32MET340, 32ELTN381. BoK: NS. Credit Level: U. Credit Hrs: 3.00

32MFTN430
Product and Production Planning
Correlation of design and manufacturing requirements; planning of manufacturing operations for parts and assemblies; production time and cost estimating; introduction to computer techniques in: group technology, material requirements planning, capacity requirements planning. Lec. and lab. Tech Option D,M. Prereq: 32ECON286,

H=University Honors course.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>BoK</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>32FTN498</td>
<td>Special Topics in Manufacturing</td>
<td>Periodic introduction of important topics in the fields of mechanical design, energy systems and manufacturing. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00</td>
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<tr>
<td>32FTN499</td>
<td>Independent Study in Manufacturing</td>
<td>Open to students only upon successful written petition. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00</td>
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<tr>
<td>32FTN555</td>
<td>TLH Student Exchange</td>
<td>Limited to foreign exchange students. Permission of department required. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 1.00-15.00</td>
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<tr>
<td>32FTN580</td>
<td>Advanced Manufacturing Systems</td>
<td>Analysis and assessment of applications of advanced technology in manufacturing systems for industrial and consumer products. Tech Option M. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00</td>
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<td>32MGMT201</td>
<td>Human Resource Management</td>
<td>Background development of Human Resources Management, change and challenges, organizational considerations, job requirements, human resources planning and recruitment, analyzing qualifications of job candidates, making selection decisions, training employees, career development, evaluating and improving performance. BoK: SE. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32MGMT215</td>
<td>Directed Study - Management</td>
<td>This course is designed for students who require individualized instruction in management. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<td>32MGMT255</td>
<td>Principles of Supervision I</td>
<td>The supervisor and diversity, the supervisor’s job, skills of supervision, organizing and delegating, planning and control, making sound and creative decisions, improving communication and handling conflict, the supervisor as a leader and motivator. BoK: SE. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32MGMT256</td>
<td>Principles of Supervision II</td>
<td>Understanding groups and teamwork, safety and health in the work place, improving productivity, supervising “problem” employees, appraising performance, selecting and training employees, management of time, ethics and organizational politics. Prereq: 17MGMT255. BoK: SE. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32MGMT261</td>
<td>Introduction to Management</td>
<td>An overview of the basic concepts of management, beginning with the planning function and concluding with the control function. Emphasis is given to the principles of management. BoK: SE. Credit Level: U. Credit Hrs: 3.00</td>
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Management

32MGMT294
Directed Studies in Free Enterprise V
Directed Studies in Free Enterprises. A didactic opportunity for students to participate in experiential internships or Students in Free Enterprise projects. Requires a minimum of thirty contact hours of participation. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT295
Directed Studies in Free Enterprise VI
Directed Studies in Free Enterprises. A didactic opportunity for students to participate in experiential internships or Students in Free Enterprise projects. Requires a minimum of thirty contact hours of participation. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT371
Management Theory
An in-depth analysis of management theories. The course addresses motivation, job performance, group dynamics, power leadership, behavior modification, organization development, managing information, operations management. The course focuses on managerial communication in the organization. Prereq: 32MGMT261. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT375
Small Business Management
An applied introduction to starting or buying a business. Course addresses the business plan, the operations team, financing, marketing plan. Focus is on the business niche, the business plan and strategic planning and marketing. Prereq: 32MGMT261. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT383
Labor Relations and Collective Bargaining
An overview of the labor relations and collective bargaining process. Topics covered will include: the legal aspects of collective bargaining, management strategies and structure for collective bargaining, union strategies and structures for representing workers, the negotiation process and strikes, contract terms and employment outcomes, participatory processes. A case study approach will be used. Prereq: 32MGMT261. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32MGMT385
Human Resource Management and Supervision
The course covers history of human development, management, staff planning, selection, recruitment, evaluation, labor relations, collective bargaining, industrial relations, discipline, compensation, incentives, handling conflicts, time management, ethics, and organizational politics. Prereq: 32MGMT261, 32FHM142, 32FHM152, 32FHM162. BoK: SE. Credit Level: U. Credit Hrs: 3.00

Marketing

32MKTG215
Directed Study - Marketing
This course is designed for students who require individualized instruction in Marketing. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG275
Marketing
Basic concepts of marketing and the application of these concepts in making decisions and managing marketing activities. Concentration on development of a marketing strategy: target markets, product, price, distribution and promotion. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG283
Principles of Retailing
The nature of retailing, ethical and legal issues, evolution of retail institutions, buying behavior of consumers, organizational structure of small and large retail firms, staffing and personnel issues, designing store facilities, ensuring store security, site selection, product mix, buying procurement and inventory control. Prereq: 32MKTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG284
Principles of Personal Selling
Principles and practices of professional personal selling. Emphasis on relationship selling and the development of a professional sales presentation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG371
Advertising
Concepts and techniques of advertising and promotions from a marketing management perspective. Topics are addressed to advance promotion of product. Advertising and public relations issues are emphasized. Contemporary techniques of direct marketing, catalog and web based advertising are stressed. Prereq: 32MKTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG372
Retailing
This course will cover the various aspects of retailing. The course will address ethical and legal issues, consumer behavior, organizational structure, personnel, security, site selection, product mix. Topics addressed from management perspectives. Principles addressed are applicable to project management and planning for decision makers who will market products to consumers and to the trade. Prereq: 32MKTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MKTG373
Personal Selling
Persuasive oral communication from a business perspective. Emphasis on student application of personal selling principles. Prereq: 32MKTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Multidisciplinary

32MLTI150
Culinary Dual Admission
Placeholder class for students participating in the UC/Cincinnati State Culinary Program. BoK: NA. Credit Level: U. Credit Hrs: 0.00

32MLTI171
Learning Across Disciplines I
This course is designed to give new students the opportunity to obtain skills that are important for their success in the college, irrespective of their field of study. It will include very specific skills such as reading and interpreting graphs, to more general skills such as critical thinking and writing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32MLTI172
Learning Across Disciplines II
Continuation of 32MLTI171. Prereq: 32MLTI171. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Professional Development

32PD101
Adult Transitions
An introduction to the University and policy and procedures necessary for a successful transition to the academic environment for adult students. This course should also provide an opportunity to serve as a support system for adults returning to the classroom after a period of functioning in roles other than that of a student. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32PD132
Professional Development I
Serves as a career orientation vehicle. The basics of career planning are taught in addition to the methodology and tools of career entrance, change and advancement. BoK: NA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.
Professional Development

32PD0432
Professional Development II
A career planning class covering the methodology and skills of career entrance, change and advancement. Topics include self-assessment, tools of the job search, interviewing techniques and Web interface as part of overall research methodology. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Philosophy

32PHIL182
Contemporary Moral Issues
Philosophical and ethical issues underlying major controversies of the day: rights, freedom and punishment; sex, euthanasia, abortion, and others. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

32PHIL301
Logic - Induction
A consideration inductive (probable) inference. Topics include: language, definitions, fallacies, analogical and causal reasoning, science and hypothesis, probability. BoK: HU, QR. Credit Level: U. Credit Hrs: 3.00

32PHIL302
Logic - Deduction
A consideration of deductive (certain) inference. Topics include: categorical propositions and syllogisms, symbolic logic, methods of deduction, quantification theory. BoK: HU, QR. Credit Level: U. Credit Hrs: 3.00

32PHIL325
Ethics in the Applied Sciences
Survey of basic ethical insights from various cultures; relation of basic ethical insights to codes of professional conduct in various applied sciences; use of cases in problem-based learning, active student participation. Prereq: 32ENGL103. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

32PHIL350
Philosophies in Global Context
What our international neighbors believe becomes increasingly important as we move into the “global village.” Each geographical/cultural area of the world has a distinctive philosophical or wisdom tradition. By selecting studied traditions, we will get to know our global neighbors better. Prereq: 32ENGL101, 32ENGL102, 32ENGL103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

32PHIL371
Ethics and Social Issues in the Workplace
This course explores the various philosophical and social theories, issues, and documentation produced in workplace setting, considering questions of ethics and values likely to arise in the course of professional careers. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

Physics

32PHYS021
Preparatory Physics II
Emphasis on problem solving. Topics include Newtonian mechanics, work, energy and power. NOTE: This course will not meet any OCAS degree requirements for Physics. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32PHYS181
Physics For Technology I
Vectors, kinematics, statics, Newton's Laws, gravity, work, energy, momentum, collisions. Prereq: 32MATH178. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32PHYS182
Physics For Technology II
Rotation, elasticity, vibration, waves, fluids, heat and thermodynamics. Prereq: 32PHYS181. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32PHYS183
Physics For Technology III
Electricity and magnetism, optics. Prereq: 32PHYS182, 32PHYS187. Coreq: 32PHYS188. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

32PHYS186
Physics For Technology I Laboratory
Laboratory course to accompany Physics for Technology I (32PHYS181). Coreq: 32PHYS181. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PHYS187
Physics For Technology II Laboratory
Laboratory course to accompany Physics for Technology II (32PHYS182). Prereq: 32PHYS181, 32PHYS186. Coreq: 32PHYS182. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PHYS188
Physics For Technology III Laboratory
Laboratory course to accompany Physics for Technology III (32PHYS183). Prereq: 32PHYS182, 32PHYS186. Coreq: 32PHYS183. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PHYS291
Physics For Engineering And Science Students I
A calculus based course. Measurement, motion (1D,2D,3D), Newton's Laws, equilibrium, gravity, particle dynamics, work and energy, impulse and momentum. Prereq: 32MATH245. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32PHYS292
Physics For Engineering And Science Students II
A calculus based course. Rotational kinematics and dynamics, special relativity, oscillations, fluids, waves, thermal energy and thermodynamics. Prereq: 32PHYS291, 32MATH245. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32PHYS293
Physics For Engineering And Science Students III
A calculus based course. Electric charge, field and potential, Gauss' Law, circuit elements, basic circuits, circuit analysis, magnetic field, AC circuit, Maxwell's Equations, optics (reflection, refraction), diffraction, option instruments. Prereq: 32MATH381, 32PHYS292. BoK: QR. Credit Level: U. Credit Hrs: 4.00

32PHYS296
Physics For Engineering And Science Students I Lab
Laboratory course to accompany 32PHYS291. Coreq: 32PHYS291. BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PHYS297
Physics For Engineering And Science Students II Lab
Laboratory course to accompany 32PHYS292. Prereq: 32PHYS296. Coreq: 32PHYS292. BoK: NA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.  
Psychics
32PHY5298
Physics For Engineering And Science Students III Lab
Laboratory course to accompany 32PHY5293. Prereq: 32PHYS293. Coreq: 32PHYS297. BoK: NA. Credit Level: U. Credit Hrs: 1.00
32PHY5299
Independent Study Physics
Independent study of Physics under faculty supervision. Requires previous written permission of the professor conducting the course for each student before registration. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00
32PHY5396
Thermal Physics for Applied Science
This course covers the basics of thermal physics and thermodynamics from a statistical viewpoint. The subject is simple and elegant but the results are powerful and used throughout all science and technology. A review of simple thermodynamics ideas and concepts (ideal gas laws and Laws of Thermodynamics) will be followed by a study of the molecular underpinnings of those laws from a statistical and quantum mechanical viewpoint. Students will learn the basic phenomena behind their studies of heat flow and transfer, entropy enthalpy, etcetera. Prereq: 32MATH381. BoK: NS. Credit Level: U. Credit Hrs: 3.00
32PHY5396H
Thermal Physics for Non-Physicists I
Honors Course. Basic ideas in thermodynamics. Emphasis is on basic ideas and principles with mathematical rigor kept to a minimum. Brief introduction to simple quantum mechanics and quantum states. Then, using the idea of a quantum state thermal Physics is explored including such topics as the laws of thermodynamics, temperature, entropy, internal energy, osmotic pressure, chemical reactions, semiconductors, and superconductors. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00
32PHY5476H
Thermal Physics for Non-Physicists II
Honors Course. Continuation of 32PHY5476H. Prereq: 32PHYS476H. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00
32PHY499
Independent Study in Physics
Please complete and submit an Independent Application form available from the college office. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00
Political Science
32POL201
American Government and Politics I
After study of the constitutional and cultural basis of the American governmental system, emphasis will be on the public's involvement in the political system -- political parties, interest groups, public opinion, voting, campaigns, elections. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00
32POL202
American Government and Politics II
A study of the Presidency, Congress, the judiciary, the bureaucracy and their policy-making roles. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00
32POL203
American Government and Politics III
A study of the U.S. government dealing with other nations and dealing, internally, with state government, as well as state governments' relations with their own citizens. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00
32POL251
Survey of Constitutional Law
A survey of the principles of the American Constitution and Supreme Court decision making, including judicial review, separation of powers, civil rights and civil liberties. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00
32POL323
Contemporary Global Issues
An examination of major problems confronting the world. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00
32POL324
Technology, Space And Global Cities
The ongoing globalization of markets and culture has transformed the modern cityscape. The objective of this course is to examine the integration of politics, usage, and innovative technologies on the urban landscape through a series of global case studies. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00
32POL325
Politics and Food
This course examines the ways in which food companies use political processes to obtain government and professional support. It examines the American diet, marketing strategies of the food industry, and its use (and misuse) of the political system. Prereq: 32ENGL103. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00
32POL330H
The Killing Fields: Genocide and the Modern Age
The course will examine the documents that have circulated around the construction of and the response to genocide. Always a technological and rhetorical event, genocide depends increasingly upon the use of the mass media to identify and spearhead violent actions, and the technologies of killing to continue to develop so that mass destruction is ever more available to smaller and smaller groups. Students will examine the historical and political ideologies that service and mobilize programs of identification, isolation, expropriation, deportation and elimination that accompany these events as well as the testimonies of those who have survived or fallen victim to them. Students will increase their critical writing and thinking skills. BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00
32POL397H
Global Urban Politics and Space Usage
The objective of this course is to examine the integration of politics, space uses, and innovation technologies on the urban landscape. Global urban problems, such as organization and space utilization, may be approached using three perspectives that will be studied in this course: 1) understanding the politics of urban space usage, 2) the politics and economics of technology innovation in the urban setting, and 3) the interactions of culture, technology, and politics in the organization of the cityscape. The course facilitates students' reconceptualization of the urban landscapes, politics, and economics. BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00
32POL398H
International Politics And The Technological Frontier
This course investigates the establishment of national and international technology policies using a series of case studies. The fundamental question underlying this class is examining what are the basic political, social, and economic rationales for the promotion of specific technologies in particular communities. BoK: SS., HP. Credit Level: U. Credit Hrs: 3.00
Psychology

32PSYC141 Principles of Psychology I
The beginning course in psychology which covers history, research, biological topics, sensation and perception, memory, intelligence, cognition and language. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC142 Principles of Psychology II
A beginning course in psychology which covers Life Span Development, Learning and Conditioning, Personality Theories and Testing, Abnormal Psychology and Therapies. Prerequisite: Psych 141 Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC171 General Psychology
An introduction to psychology. Topics include learning, motivation, perception, and personality. Practical application of principles of psychology supplement text. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC181 General Psychology Laboratory
Laboratory instructions for General Psychology (32PSYC171) BoK: NA. Credit Level: U. Credit Hrs: 1.00

32PSYC271 Learning & Problem Solving
The first half of the course will focus upon how human and other animals learn. The behavior analytic perspective will be emphasized, however cognitive approaches and other current learning theories will be addressed. The second half of the course will cover basic problem solving strategies. Students will be presented with several varied problem solving approaches as well as how to avoid common problem solving errors. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC371 Psychology of Work Teams
An experiential approach to participative decision making including quality circles, socio-technical committees, and other applications of Theory Z. Prereq: 32PSYC171. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC373 Managerial Psychology
Study of concepts and practices applicable to managing human behavior in the business and industrial setting, using case studies and game simulations. Prereq: 32PSYC171. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC374 Behavioral Technology
This course is designed to present the student with the technical concepts and the technical procedures used in applying behavior analytic principles. Student will learn how to more effectively manage their own behavior and also will learn how behavior analysis is applied in various settings including: schools, sports, business and industry institutions, homes, the community, etc. Students will also learn about and discuss the ethics surrounding the use of behavioral technology. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32PSYC375 Social Psychology
This course will present theories and research pertaining to Social Psychology. Students will explore explanations of human social behavior in an attempt to broaden their understanding of why people behave in particular ways in social situations. Students will be encouraged to relate personal experience to their growing awareness and understanding as the course progresses. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Psychology

32PSYC376 Psychology of Sport
The role of psychological aspects of human behavior as it affects performance in sports. Topics include violence and deviant behavior in sport, sport aggression, extrinsic and intrinsic motivation in sport. Prereq: 32PSYC171. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Reading

32READ086 Math Success Seminar/Effective Reading Paired with Elementary Algebra
A course to improve reading and learning strategies for better comprehension of math courses. Students learn self-direction in mastering math concepts and principles of effective communication in the language of mathematics by integrating reading, writing, speaking, and listening. This course is designed to be taken in conjunction with basic math courses. The content of the math courses is used to assist student in the attainment of the necessary learning strategies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32READ088 Accelerating Toward Learning and Academic Success (ATLAS)
This course is required of all students who are on suspension warning and suspension appeal and is strongly recommended to any student with below 2.0 GPA. Intensive, individualized instruction will address anxiety, attitude, and motivation as they affect college student behaviors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Sports Management

32SMGT171 Introduction to Sport Administration
The definition and evolution of sport management. This course will explore various careers in professional, collegiate, high school and other areas of sport management. The student will define professional goals based on personal strengths and weaknesses in light of skills and competencies of sport leaders. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32SMGT373 Sport Finance
This course seeks to develop a comprehensive understanding of the impact of finance on sport management. Topics include financial planning and administration for professional athletes, inter-collegiate administrations, and the public/private sport industry. The student will become familiar with financial statement analysis, budgeting, operating expenses, risk/return models, revenue sources and their eventual impact on sport management. Prereq: 32FIN371. BoK: QR. Credit Level: U. Credit Hrs: 3.00

32SMGT374 Sport Marketing
The marketing planning process relative to the sport industry. This course will focus on development of a marketing strategy with consideration to the unique aspects of sport marketing. Topics include selection of a target market and sport consumer behavior as well as decisions on product, distribution, price, and promotion. Prereq: 32MTG275. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT387 Sport Management
The basic concepts of management applied to a variety of sport settings. This course will emphasize strategic planning, creating an organizational structure, staffing, leadership and motivation, as well as controlling the sport organization. Prereq: 32MGMT371. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32SMGT441 Senior Project I
This course provides the student with the opportunity to bring together in a comprehensive manner all of the subjects covered in the program and the additional experiences gained from the co-op. Permits
Sports Management

32SMGT441  
Senior Project I  
Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT442  
Senior Project II  
This course provides the student with the opportunity to bring together in a comprehensive manner all of the subjects covered in the program and the additional experiences gained from the co-op. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT471  
Sport Facility & Event Management  
An overview of planning and design of an athletic facility. This course will focus on the management of venues and events, venue and event operations and maintenance, as well as venue and event programming and scheduling. Prereq: 32SMGT387. BoK: SE. Credit Level: U. Credit Hrs: 3.00

32SMGT473  
Athletic Fundraising  
This course is designed to create a complete understanding of the development industry. The student will be made aware of the roles, functions, economic needs/goals, and responsibilities of those who manage fund raising activities for both private and public facilities, including specific marketing techniques, communication responsibilities, and relationship building programs. The student will also review the ethical and legal natures connected to both collegiate and public fundraising. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT475  
Sport and the Media  
This course will prepare the student in the area of sport media and media relations. Sport and the media develops an understanding of advertising, public relations, public relations, sport information, promotions, and writing for sport publications. The student will be made aware of the interactive nature between television, radio, sport marketing and management firms, sport stat researchers, sport video production and the internet. All aspects if the media will be explored including specialized sport media techniques and strategies. Prereq: 32SMGT374. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT483  
Sport Governance  
This course is designed to provide knowledge of the organizational structure, authority and functions of governing bodies in professional and amateur sport, with emphasis on the role of the National Collegiate Athletic Association in collegiate athletics, and awareness of the influence of state and federal government on sport governing bodies. Prereq: 32SMGT387. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

32SMGT485  
Sport Public Relations  
The importance of positive relations with both external and internal publics in the field of sports. This course will focus on the various tools available to effectively communicate with relevant stakeholders, from group to mass communication. Sport Public Relations will feature a case study approach. Prereq: 32SMGT374. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT487  
Ethical Issues in Sport  
An analysis of moral and ethical issues in organized sport. Emphasis is placed on concepts of morality, professional ethics, and personal management values. Ethical dilemmas and conflicts will be discussed, as well as coaching, funding and management practices. Upon completion of the student should be able to apply ethical theories to typical problems in the world of sport. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32SMGT489  
Current Topics in Sport  
This course is designed for senior Sport Management majors. The course studies current issues, problems and trends in sport from a socio-cultural, management, ethical, marketing, communication, financial, legal, governance or economic perspective. Prereq: 32SMGT387. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Sociology

32SOC121  
Introduction to Sociology I  
A general survey of the basic concepts and theoretical perspectives underlying social organization. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

32SOC122  
Introduction to Sociology II  
An examination of social institutions and the processes of sociocultural changes in contemporary society. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Social Science

32SOSC341  
Civility and Manners in a Global Age  
Students focus on the proper etiquette skills necessary to conduct business in the national and international workplace. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

32SOSC342  
The World of Tea  
This course examine the role tea plays in various cultures. The history, technology, biochemistry, and traditions provide a lens through which to examine its role in society from 2700 B.C. to the 21st century. Prereq: 32ENGL103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

32SOSC371  
Ethics And Social Issues In The Workplace  
This course explores the various philosophical and social theories, issues, and documentation produced in the workplace setting, considering questions of ethics and values likely to arise in the course of professional careers. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

Statistics

32SOC489  
Special Topics in Social Sciences  
Periodic instruction of important topics in the social sciences. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

H=University Honors course.
**Statistics**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
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</thead>
<tbody>
<tr>
<td>32STAT171</td>
<td>Introduction to Management Statistics</td>
<td>Collection, presentation, and descriptive measurement of data. Introduction to probability. BoK: QR. Credit Level: U. Credit Hrs: 3.00</td>
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<td>3.00</td>
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<tr>
<td>32STAT181</td>
<td>Statistics for Culinary Science</td>
<td>Topics include graphical and numeric descriptive measures for univariate and bivariate data and control charts. Food industry and business applications are emphasized. Includes a laboratory with experiments and data analysis using computer software. BoK: QR. Credit Level: U. Credit Hrs: 4.00</td>
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<tr>
<td>32STAT202</td>
<td>Business Statistics II</td>
<td>Continuous probability distributions. Sampling distributions. Interval estimation and hypothesis testing. BoK: QR. Credit Level: U. Credit Hrs: 3.00</td>
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<td>3.00</td>
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<tr>
<td>32STAT215</td>
<td>Directed Study - Statistics</td>
<td>This course is designed for students who require individualized instruction in statistics. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32STAT231</td>
<td>Applied Statistics for Business I</td>
<td>Topics include graphical and numeric descriptive statistics, introduction to probability, discrete and continuous probability distributions. Business applications are emphasized. Coverage of topics supplemented by use of laboratory exercises that include hands-on activities and data analysis using computer software. Prereq: 32MATH174, 32IT142. BoK: QR. Credit Level: U. Credit Hrs: 4.00</td>
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<tr>
<td>32STAT232</td>
<td>Applied Statistics for Business II</td>
<td>Topics include sampling techniques, sampling distributions, interval estimation and hypothesis testing, chi-square tests, analysis of variance, simple and multiple linear regression. Business applications are emphasized. Coverage of topics supplemented by use of laboratory exercises that include hands-on activities and data analysis using computer software. Prereq: 32STAT231. BoK: QR. Credit Level: U. Credit Hrs: 4.00</td>
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<td>4.00</td>
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<tr>
<td>32STAT241</td>
<td>Business Statistics -- Accelerated I</td>
<td>Descriptive statistics, probability and probability distributions. Sampling and interval estimation. Emphasis on business applications. BoK: QR. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32STAT242</td>
<td>Business Statistics II -- Accelerated</td>
<td>Hypothesis testing, regression and correlation analysis, analysis of variance, the chi-square distribution, time series analysis, and index numbers. Emphasis on business applications. BoK: QR. Credit Level: U. Credit Hrs: 3.00</td>
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**Welding Technology**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
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</thead>
<tbody>
<tr>
<td>32WLTN020</td>
<td>Welding, GMAW</td>
<td>MIG welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN021</td>
<td>Welding, GMAW</td>
<td>MIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN022</td>
<td>Welding, GMAW</td>
<td>MIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<td>3.00</td>
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<tr>
<td>32WLTN023</td>
<td>Welding, GMAW</td>
<td>MIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN030</td>
<td>Welding, SMAW (Electric Arc)</td>
<td>Stick welding. Principles of welding, types of welds and electrodes, machines used, current and voltage required, tests used. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN031</td>
<td>Welding, SMAW</td>
<td>WELDING SMAW BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN032</td>
<td>Welding, SMAW</td>
<td>WELDING SMAW BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN033</td>
<td>Welding, SMAW</td>
<td>WELDING SMAW BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN040</td>
<td>Welding, Oxy-Fuel</td>
<td>Through 32WLTN043, Gas Welding, Principles of welding and cutting, types of rods, metals and fluxes used. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN041</td>
<td>Welding, Oxy-Fuel</td>
<td>WELDING OXY-FUEL BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN042</td>
<td>Welding, Oxy-Fuel</td>
<td>WELDING OXY-FUEL BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN043</td>
<td>Welding, Oxy-Fuel</td>
<td>WELDING OXY FUEL BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>32WLTN050</td>
<td>Welding, GTAW</td>
<td>TIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<td>3.00</td>
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<tr>
<td>32WLTN051</td>
<td>Welding, GTAW</td>
<td>TIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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</table>

H=University Honors course.
Welding Technology

32WLTN052
Welding, GTAW
TIG Welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN053
Welding, GTAW
TIG welding. Principles, types of materials, electrodes and welds, machines used, current and voltage required, test used. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN060
Welder Qualification Program
Train welders to successfully complete a weld procedure certification test. This test can be either a company specific weld procedure or AWS QC 7. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32WLTN061
Welding Skills
Principles, materials, equipment and techniques of SMAW (electric arc), oxy-fuel and GTAW/GMAW (inert arc) welding. Hands-on stick, gas, and TIG and MIG welding. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN062
Industrial Materials
Lecture and lab on some basic materials used in industry including metals, both ferrous, non-ferrous, and non-metals. Topics include the production, identification, mechanical properties, formability, and suitability for use of the materials studied BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN065
Weld Quality Control Administration
Welding performance of state building codes and applicable technical codes and standards. BoK: NA. Credit Level: U. Credit Hrs: 4.00

32WLTN071
Aircraft Engine Assembly I
Jet engine concepts, descriptions and use of tools, interpretation of assembly, lifting and inspection procedures related to jet engine assembly. Hands-on assembly of gear box components. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN072
Aircraft Engine Assembly II
Continuation of Aircraft Engine Assembly Methods I: torquing procedures, installation of piping, inspection and installation of turbine blades. Prereq: 32WLTN071. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN073
Aircraft Engine Assembly III
Continuation of Aircraft Engine Assembly Methods II: assembly inspection, rotor stacking and balancing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN081
Design and Fabrication of Plastic Molds
Specifies the manufacturing methods for molds -- from blow molds to injection molds. The emphasis is on injection molds where the student will learn how to design and specify the materials for an injection mold. In the lab section of the course, the student will design a medium complexity injection mold. BoK: NA. Credit Level: U. Credit Hrs: 5.00

32WLTN084
Plastic Processing Machinery
Concentrates on the most popular methods of plastics processing and the equipment and machinery associated with them (i.e., the molds, the dies, injection molding machines, etc). The students will learn the processing variables and the complexity involved in transforming plastic resin into finished product. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

32WLTN088
Plastic Assembly Processes
Covers the joining and assembly techniques for plastic products (i.e., mechanical fasteners, solvents, adhesives, ultra-sonic welding, and designed integration of plastic component part mechanical connectors). The course will expose the student to automation and automatic assembly. BoK: NA. Credit Level: U. Credit Hrs: 3.00

32WLTN430
Joining Theory Prac
JOINING THEORY PRAC Prereq: 32MFTN131. Coreq: 32MFTN250. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
MCMICKEN COLLEGE OF ARTS AND SCIENCES
COURSE DESCRIPTIONS
15ACCT311 Advanced Financial Accounting I
(Formerly Intermediate Accounting). Work sheets; financial statements; corporate structure accounting. Valuation principles, investments, intangible assets, liabilities, capital stock, reserves. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT470 Consolidated Financial Statements
(Formerly 30ACCT471, Advanced Accounting). Consolidation statements and business combinations. Handling of mergers, consolidations and other forms of business combinations. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT481 Auditing Concepts I
(Formerly 30ACCT483, Auditing I). Principles, standards, and procedures involved in the conduct of an audit. Internal control, statistical sampling, objectives and report presentation. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT571 Federal Tax I
Principles of federal income taxation, economic implications; including laws, rulings and regulations. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT577 Accounting For Funded Organizations
Accounting principles and techniques as they relate to the funded entity, applications of accounting procedures, educational, religious, social organizations and hospitals. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT579 Accounting Information Systems
Principles of analyzing and designing accounting information systems; manual, mechanized, and computerized systems. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15ACCT588 Applied Accounting Theory
(Formerly 30ACCT589, Accounting Theory). Reading and research in current accounting literature. Discussion of controversial topics. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Air Force ROTC

15AF101 Aerospace Studies 100: The Air Force Today
AS 100 is a survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Feature topics include: mission and organization of the Air Force, officerhip and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. 15-112-120. Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with followership experience. This is the third offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF102 Aerospace Studies 100: The Air Force Today
AS 100 is a survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Feature topics include: mission and organization of the Air Force, officerhip and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. 15-112-120. Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with followership experiences. This is the second offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF103 Aerospace Studies 100: The Air Force Today
AS 100 is a survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Feature topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. 15-112-120. Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with leadership experience. This is the third offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF120 Basic Leadership Lab
The AS 100 and AS 200 Leadership Laboratory courses (LLABs) include a study of Air Force customs and courtesies, drill and ceremonies, and military commands. The LLAB also includes studying the environment of an Air Force officer and learning about areas of opportunity available to commissioned officers. This course also requires two (2) mandatory hours of Physical Training (PT) per week. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15AF201 Aerospace Studies 200: The Air Force Way
AS 200 is a survey course designed to facilitate the transition from Air Force ROTC cadet to Air Force ROTC candidate. Featured topics include: Air Force heritage, Air Force leaders, quality Air Force, and introduction to ethics and values, introduction to leadership, group leadership problems, and continuing application of communication skills. 15-112-120 Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with their first opportunity for applied leadership experiences discussed in class. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF202 Aerospace Studies 200: The Air Force Way
AS 200 is a survey course designed to facilitate the transition from Air Force ROTC cadet to Air Force ROTC candidate. Featured topics include: Air Force heritage, Air Force leaders, quality Air Force, and introduction to ethics and values, introduction to leadership, group leadership problems, and continuing application of communication skills. 15-112-120 Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with their first opportunity for applied leadership experiences discussed in class. This is the second offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF203 Aerospace Studies 200: The Air Force Way
AS 200 is a survey course designed to facilitate the transition from Air Force ROTC cadet to Air Force ROTC candidate. Featured topics include: Air Force heritage, Air Force leaders, quality Air Force, and introduction to ethics and values, introduction to leadership, group leadership problems, and continuing application of communication skills. 15-112-120 Basic Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with their first opportunity for applied leadership experiences discussed in class. This is the third offering in a three-part course sequence. BoK: HP. Credit Level: U. Credit Hrs: 1.00

15AF301 Aerospace Studies 300: Air Force Leadership and Management
AS 300 is a study of leadership and quality management fundamentals, professional knowledge, Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management.

15AF301 Aerospace Studies 300: Air Force Leadership and Management
Aerospace Studies 300 is a study of leadership and quality management fundamentals, professional knowledge. Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. 15-115-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course. This is the second offering in a three-part course sequence. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15AF302 Aerospace Studies 300: Air Force Leadership and Management
Aerospace Studies 300 is a study of leadership and quality management fundamentals, professional knowledge. Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. 15-115-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course. This is the third offering in a three-part course sequence. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15AF303 Aerospace Studies 300: Air Force Leadership and Management
Aerospace Studies 300 is a study of leadership and quality management fundamentals, professional knowledge. Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. 15-115-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences in officer-type activities, giving students the opportunity to apply leadership and management principles of this course. This is the third offering in a three-part course sequence. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15AF320 Advanced Leadership Lab
The AS 300 and AS 400 Llabs consist of activities classified as advanced leadership experiences. They involve the planning and controlling of military activities of the cadet corps and the preparation and presentation of briefings and other oral and written communications. LLABS also include interviews, guidance, and information which will increase the understanding, motivation, and performance of other cadets. This course also requires two (2) mandatory hours of Physical Training (PT) per week. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15AF401 Aerospace Studies 400: Preparation for Active Duty
Aerospace Studies 400: Preparation for Active Duty examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officer-ship, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. 15-112-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences, giving students the opportunity to apply the leadership and management principles of this course. This is the second offering in a three-part course sequence. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15AF402 Aerospace Studies 400: Preparation for Active Duty
Aerospace Studies 400: Preparation for Active Duty examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officer-ship, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. 15-112-320 Advanced Leadership Lab is mandatory and complements this course by providing advanced leadership experiences, giving students the opportunity to apply the leadership and management principles of this course. This is the second offering in a three-part course sequence. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00
## African-American Studies

### 15AFAM204
**Introduction to Black Gender Studies**
Introduction to gender and gender oppression as major organizing principles in African-American social institutions, culture, and politics.  
BoK: DC. Credit Level: U. Credit Hrs: 3.00

### 15AFAM206
**African Diaspora Cultures I: African Cultures**
An analysis of traditional and/or contemporary cultures and aspects of cultural production in the African continent. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

### 15AFAM207
**The African Diaspora Cultures II: African American Cultures**
An analysis of traditional and/or contemporary cultures and aspects of cultural production of people of African descent in the United States. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

### 15AFAM208
**African Diaspora Cultures III: Afro-Latin and Caribbean Cultures**
An analysis of traditional and/or contemporary cultures and aspects of cultural production of people of African descent in Latin American and Caribbean societies. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

### 15AFAM227
**Introduction to Modern Africa**
An interdisciplinary course offering a general understanding of contemporary Africa, especially Africa south of the Sahara Desert. This course covers some critical issues and problems facing Africa today. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

### 15AFAM234
**Sociology of the Black Community**
Introduction to issues affecting African-American communities including institutional discrimination and contrasting views of Black culture. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

### 15AFAM235
**Sociology of the Black Community**
Survey of Black cultural institutions including family, religion, music, and dance. Transfer Module. BoK: SS, Credit Level: U. Credit Hrs: 3.00

### 15AFAM236
**Sociology of the Black Community**
Survey of race, poverty, and the urban underclass. Special attention to Cincinnati Black communities. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

### 15AFAM245
**African-American Drama**
Survey of Black drama and the role of Blacks in the theater from post-Civil War through the Depression years. Transfer Module. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

### 15AFAM246
**African-American Drama**
Survey of Black drama and the role of Blacks in theater and film from the late 1930s up to the present. Transfer Module. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

### 15AFAM247
**Black Drama Studio**
Students will apply the principles of Black drama encountered in prior course work, by participating in the performance and/or production of a dramatic presentation. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 3.00

### 15AFAM291
**The Black Adolescent Male**
A survey of the psycho-cultural influences occurring during adolescence that affect the Black male in American society. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

### African-American Studies

### 15AFAM301
**African History: Antiquity to 18th Century**
A study of ancient African history and civilization: southern origins of Egyptian civilization, and the early empires of the Western Sudan–Ghana, Mali, Songhay, and Zimbabwe empires in Southern Africa. BoK: HP. Credit Level: U. Credit Hrs: 3.00

### 15AFAM302
**African History: 18th Century to 1945**
The genesis of modern African history. History of African social and political institutions before the European conquest. The European settlements in Africa; the Atlantic slave trade and Euro-Christian and Islamic influence before partition of Africa. BoK: HP. Credit Level: U. Credit Hrs: 3.00

### 15AFAM303
**African History: 1935 to Present**
The partition and colonization of Africa by European countries. African response to European conquest. Colonial administration of Africa up to the end of World War II. BoK: HP. Credit Level: U. Credit Hrs: 3.00

### 15AFAM304
**Black Men in U.S. Society**
An examination of how systems of race, class, and gender shape the experiences of African-American men. BoK: SS. Credit Level: U. Credit Hrs: 3.00

### 15AFAM305
**Black Women in U.S. Society**
An examination of how systems of race, class, and gender shape the experiences of African-American women. BoK: SS. Credit Level: U. Credit Hrs: 3.00

### 15AFAM307
**Blacks in Science and Technology**
An historical exploration of the contributions of African and African Americans to science and technology. Topics include social factors affecting the ways in which these contributions have been viewed by the West, and the special challenges that people of African descent face in controlling the scientific and technological products of their imaginations. BoK: SS. Credit Level: U. Credit Hrs: 3.00

### 15AFAM308
**Women in African History**
Explores the social, economic and political roles that women have played in African History. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

### 15AFAM309
**Black Families in Diasporic Context**
Overview of historical and contemporary issues of African American family life as well as experiences throughout the African Diaspora. Formerly 15AFAM310. BoK: DC. Credit Level: U. Credit Hrs: 3.00

### 15AFAM310
**African American Literature**
African American Literature from the mid-eighteenth century to the turn of the twentieth century. Formerly 15AFAM210. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

### 15AFAM311
**African American Literature**
African American Literature from beginning of the twentieth century to Richard Wright emphasizing the new Negro Renaissance and the Depression years. Formerly 15AFAM211. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

### 15AFAM312
**African American Literature**
Survey of modern African American Literature with consideration to its growth and development from Richard Wright through Black Womanist Literature. Formerly 15AFAM212. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

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H=University Honors course.  
African-American Studies

15AFAM316 African American Poetry I
A study of early African-American poets from Phillis Wheatley to Sterling Brown with emphasis on the thematic and stylistic development. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM317 African American Poetry II
The exploration of African-American poetry since the 1950s with attention to the various traditions in modern African-American literature, i.e., Civil Rights Era, New Black Arts Movement, Black womanist tradition. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM321 Black Entrepreneurship
An exploration of the business culture in which African American entrepreneurs operate. Topics include the role of socialization in affecting the way the prospective entrepreneur, the consumer, and lending institutions view the concept of Black entrepreneurship. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM322 African American History to 1860
Examination of African Americans from 1619 to the Civil War, including major West African civilizations, the slave trade and slavery. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM323 African American History: 1860-1930
Examination of African Americans from the Civil War to the end of the nineteenth century. Emphasis on Civil War and Reconstruction. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM324 African American History: 1930-Pres
Examination of African Americans in the twentieth century. Topics include protest, nationalism, and black power. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM326 African-Americans and Education
An exploration of African American experience in American educational institutions. Topics include African-Americans and K-12 pubic education, Blacks in higher education, racial desegregation and Black achievement, and the growth specialized schools. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM345 African Religion
Introduces students to the complexity and dynamics of religions conceptualization and practice in Sub-Saharan Africa. On-line course. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15AFAM360 Literature of the African Diaspora I
Examines the journey narrative in literature by writers of African descent with emphasis on critical and comparative approaches. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM361 Literature of the African Diaspora II
Explores intertextual and comparative relationships in texts by women writers of African descent. Special emphasis will be placed on the Caribbean and the United States. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM362 Literature of the African Diaspora III
Examines global literary and aesthetic movements by writers and critics of the African Diaspora. Specialized topics include: the Harlem Renaissance, the Negritude Movement, Pan-African thought, etc. BoK: LT. Credit Level: U. Credit Hrs: 3.00

African-American Studies

15AFAM363 African Literature I: Introduction
Contemporary African literature from Nigeria, Ghana, Zimbabwe, and Senegal, reflecting both traditional and post-colonial subjects and form. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM364 African Literature II: Topics
A study of topics, themes, genres, or regions in contemporary African Literature reflecting both traditional and post-colonial subjects and form. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM365 African Literature III: Drama
This course focuses on plays written in South Africa, Kenya, Nigeria, and Ghana. They deal with the consequences of colonialism and racism and problems of political, cultural, personal and linguistic identity. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM366 Cultures of Africa
Pre-colonial African thought, social and economic values, and how they have been influenced by external forces. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15AFAM367 Caribbean Literature
Surveys contemporary Caribbean literatures, examines key themes addressed within literary texts written by authors from the archipelago. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15AFAM370 W.E.B. DuBois & the African American Experience
This course will acquaint students with DuBois' major works and his life as a scholar and political activist in America during the first fifty years of his life. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM371 20th Century Black Internationalism: Globalization and American Experience
Acquaints students with the lives of black leaders like W.E.B DuBois, Claudia Jones, Paul Robeson, Willis Nathaniel Higgins & William Patterson, who internationalized the black struggle for freedom, democracy and human rights in America. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM380 The Black Church in America
The role of the Black church in the African American historical, religious, cultural, and political experience. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM386 Black Politics
The political behavior of Black people, the Black community involvement in voter registration and the impact of the Black vote on the American society. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15AFAM395 Race and Politics in America: 1936 to the present
This course offers an overview of African American voting behavior and enfranchisement, the historic breakthroughs by African Americans in appointed positions and elective office, and the relevance of conservative and liberal ideologies for the black community. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM397H African Americans and State-Sponsored Injustice/Inequality
Addresses the relationship African Americans have had with the state in the post-civil rights era. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM401 Research and Writing in African American Studies
A workshop on writing research papers and other forms of writing in the field of African American Studies. BoK: NA. Credit Level: U. Credit Hrs:
African-American Studies

15AFAM401
Research and Writing in African American Studies
3.00

15AFAM404
Contemporary Black Film, 1960 to the Present
Explores the range of genre and topics projected by Blacks in contemporary film. Particular emphasis will be placed upon the impact of African film and the proliferation of films acted in, authored, directed, and produced by African-Americans. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15AFAM414
Politics in Post-Colonial Africa
Examines political development in Africa since independence: single-party rule, military governments, and the concept of African socialism. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM430
African-American Adolescence
An overview of U.S. Black males and U.S. Black females through the experience of adolescence. Topics covered include Black adolescent development, Black youth school achievement, patterns and unemployment, Black youth and the drug industry, teen pregnancy and parenthood, and violence and Black youth. Special attention is given to grassroots and other community responses to issues facing Black adolescents. Prereq: 15AFAM234, 15AFAM235, 15AFAM236. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15AFAM431
Black Urban Poverty
An introduction to poverty as a major social issue facing urban African-American communities. Uses institutional discrimination to develop a comprehensive analysis of Black urban poverty as shaped by race, class, and gender. Topics include: Surveying how Black poverty has been analyzed in scholarship and public policy, Assessing specific public programs such as urban renewal, school desegregation and busing, and Public housing. BoK: SS. Credit Level: U. Credit Hrs: 4.00

15AFAM432
Black Health Care
BLACK HEALTH CARE BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM433
The Economic Transformation of Africa
Examines the various economic paths that Africa has experienced since the pre-colonial period to the continent's current struggles to survive in an increasingly global economy. BoK: QR, DC. Credit Level: U. Credit Hrs: 3.00

15AFAM442
Religion in African American Literature
An exploration of religious themes in African American literature, with emphasis on the twentieth century. Formerly 15AFAM342. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15AFAM443
Race in African American Literature
African American writers and their treatment of race in selected fiction, poetry, and exposition. Formerly 15AFAM343. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15AFAM450
West African History and Civilizations
Examines process of state formation, the trans-Saharan Trade, the trans-Atlantic slave trade and other historical development in West Africa prior to the Europeans. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM451
Colonization, Nationalism and Post-Colonial West African States
Examine European colonization, the various colonial policies, the struggle for independence and developments since independence. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

15AFAM452
Liberation Struggles
This course focuses on the movements of people of African descent in search of freedom from colonialism, racial oppression, slavery and apartheid. Topics include the African American Civil Rights Movement, the South African of the anti-apartheid movement, and anti-colonial movements of Africa and the Caribbean. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

15AFAM453
Afro-Caribbean and Afro-Latin American History
A study of the history and people of African descent in the Caribbean, Central and South America from slavery to the present. Topic include slavery and resistance, post-emancipation labor systems, the rise of Pan African and modern Black hemispheric politics. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15AFAM460
Africana Demography
Explores the demographic dynamics in the African Diaspora, including issues of population growth, contraction and movement. Perm of Instructor. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15AFAM462
History of South Africa
A study of the history of southern Africa; the Mfecane white settlement and the politics of Apartheid. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

15AFAM470
The City in African American Literature
Examines the Black urban experience in 20th century fiction and explores how post-Harlem Renaissance writers conceive of the modern city. Includes service learning component. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15AFAM479
Racism
Personal, institutional and cultural consciousness related to sexual attraction, justice and social change. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15AFAM505
Research in African American Studies
An introduction to questions, issues and themes concerning research in African American Studies, in particular, those concerning the design, implementation, and evaluation of research projects. Students work on research projects under supervision of faculty advisor. Perm of Instructor. BoK: QR. Credit Level: U. G. Credit Hrs: 3.00

15AFAM506
Topics in Contemporary Black Film
Examines post 1960 independent and Hollywood films from a topical approach. Students will discuss how the themes are interrelated and how their representations have contributed in the construction of everyday life in the United States. Prereq: 15AFAM404. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15AFAM508
Seminar in African World History
Intensive study of a selected topic in the history of people of African descent in the African continent, the Caribbean, Latin America, and/or Europe. Perm of Instructor. BoK: SE. Credit Level: U. G. Credit Hrs: 3.00

15AFAM509
Seminar in African American History
Explores the process of conducting research in African American History. Students work collaboratively and individually toward the production of a seminar paper. Perm of Instructor. BoK: SE. Credit Level: U. G. Credit Hrs: 3.00

15AFAM515
African American Social and Political Thought
This course will examine the intellectual history of African-American
### African-American Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>15AFAM515</td>
<td>African American Social and Political Thought</td>
<td>Upon invitation and under supervision of faculty, junior and senior area majors serve as teaching assistants for lower division African American Studies courses. Prereq: 15AFAM597. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM520</td>
<td>Internship in African American Studies</td>
<td>Internship experience that allows students to investigate the applicability of African American Studies in the work world. Prereq: 15AFAM597. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM521</td>
<td>Internship in African American Studies</td>
<td>Internship experience that allows students to investigate the applicability of African American Studies in the work world. Prereq: 15AFAM597. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM522</td>
<td>Teaching Practicum in African American Studies</td>
<td>Upon invitation and under supervision of faculty, junior and senior area majors serve as teaching assistants for lower division African American Studies courses. Prereq: 15AFAM597. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM530</td>
<td>Seminar in Black Creative Expression</td>
<td>Intensive study of selected topics germane to the creative vision of African Americans as represented in the various artistic domains. Perm of Instructor. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15AFAM532</td>
<td>Black Popular Culture</td>
<td>Black Popular Culture BoK: HU. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM535</td>
<td>Seminar in Black Social Organization</td>
<td>Analysis of social, political, and economic development of Black communities. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM537</td>
<td>Individual Study</td>
<td>Students work in a chosen area of studies. Work consists of (a) internship problems, (b) individual research paper or project, or (c) Black readings. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM538</td>
<td>Individual Study</td>
<td>See 15-093-537. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM539</td>
<td>Individual Study</td>
<td>See 15-093-537. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM540</td>
<td>Pan-Africanism: Politics of Unity</td>
<td>Examination of the nature of historical roots of Pan-Africanism in the Diaspora, and its emergence on the continent. Also examines the nature, structure, and functioning of the OAU in the context of international politics. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15AFAM550</td>
<td>Comparative Racial Oppression in the United States and South Africa</td>
<td>This course focuses on the movements of people of African descent for freedom from colonialism, racial oppression and racism, slavery and apartheid. Using a comparative approach, it traces evolving programs and conceptions of the freedom struggle across generations and regions. Topics include the African American Civil Rights Movement, the South African anti-apartheid movement, the anticolonial movements of Africa and the Caribbean. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
</tbody>
</table>

H=University Honors course.
BoK (Breadth of Knowledge) Coding:
- DC: Diversity & Culture.
- EC: English composition.
- FA: Fine Arts.
- HP: Historical Perspectives.
- HU: Humanities.
- LT: Literature.
- NS: Natural Sciences.
- QR: Quantitative Reasoning.
- SE: Social & Ethical Issues.
- SS: Social Sciences.
African-American Studies

15AFAM580
The Law and Black People
This course is an in-depth analysis of the sociological, psychological, and economical aspects of the justice system and laws as they relate to Black people with special emphasis on the immediate community. A seminar with term papers and with speakers in law-related positions in the Cincinnati community. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM581
The Law and Black People
This course is an in-depth analysis of the sociological, psychological, and economical aspects of the justice system and laws as they relate to Black people with special emphasis on the immediate community. A seminar with term papers and with speakers in law-related positions in the Cincinnati community. The second offering in a three-part course sequence. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM582
The Law and Black People
This course is an in-depth analysis of the sociological, psychological, and economical aspects of the justice system and laws as they relate to Black people with special emphasis on the immediate community. A seminar with term papers and with speakers in law-related positions in the Cincinnati community. The third offering in a three-part course sequence. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM587
African American Women's History
Traces the experiences of African American women against the backdrop of racism, sexism and classism in American Society. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15AFAM589
Early Black Women Writers: Wheatley to Hurston
A survey of early Black women's literature with emphasis on the contributions of major writers to the development of Black women's literary tradition. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00

15AFAM590
Contemporary Black Women Writers: Hurston to Present
A study of modern literature by Black women writers with special emphasis on the writers' contributions to Black women's literary tradition. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00

15AFAM591
IND ST BLK GENDER
IND ST BLK GENDER BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15AFAM592
Internship in Black Gender Studies
Students plan and participate in internship in Black gender studies in community organizations. Requirements include 30 hours of unpaid community service and summary report. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15AFAM593
Current Issues in Black America
Topics of special significance to Blacks in contemporary society, i.e., unemployment, housing, private and public education, sexism among Blacks, etc. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15AFAM595
Senior Honors Project I
Under supervision of full-time faculty, advanced individual study on senior honors thesis or project. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15AFAM596
Senior Honors Project II
Under supervision of full-time faculty, advanced individual study on senior honors thesis or project. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15AFAM597
Seminar in African American Studies
A capstone seminar for African American Studies majors. The major requirement consists of preparing a seminar paper or senior project. Prereq: 15AFAM508, 15AFAM509. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15AFAM600
Independent Study
Master's and doctoral candidates can also take 500 level courses. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-9.00

15AFAM601
Independent Study
See 15-093-600. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-9.00

15AFAM802
Master's Thesis Research
MASTHERESIS RESEARCH Credit Level: G. Credit Hrs: 3.00-9.00

15AFAM902
Directed Reading
Archaeology

15ANTH106  
Biological Anthropology  
requirements. Prereq: 15ANTH104, 15ANTH105. BoK: NS, SS. Credit Level: U. Credit Hrs: 3.00

15ANTH107  
Introduction to Archaeology  
Examines goals of archaeological research; formation processes; remote sensing; survey, excavation, and dating techniques; artifact classification; data analysis; interpretation. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ANTH108  
World Prehistory  
Survey of selected prehistoric cultural sequences in the Old World until the time of the Romans and in the New World before European contact. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH109  
Introduction to Linguistic Anthropology  
Introduction to the study of linguistic systems from an anthropological perspective, addressing key topics in the field related to language structure, language use, and language change. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH150  
Cultural Modification Of The Body  
An anthropological investigation of the modification of the human body, including tattooing, piercing and other skin and bone modifications. Discusses the cultural ideology behind modifications, the osteological/musculo-skeletal ramifications of some of modifications, and the evolution of these modifications in western societies. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ANTH151  
People and Wetlands  
Examines several case studies from around the that address the complexity of human interactions with wetlands and their many cultural values. In many of these cases, wetlands are viewed as places of pestilences that should be avoided, as are the people who are associated with them, and thus the degree to which people interact with or inhabit wetland landscapes often contributes to the emergence of inequalities and structuring of power relationships between groups. This course engages students both with contemporary issues re: wetland preservation and with current ethnographic and archaeological research on people who live in wetland settings. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15ANTH190  
Fantastic Archaeology and Archaeological Mysteries: Science vs Pseudoscience  
Fantastic claims about the human past are widely available on television, in books and newspapers, and on the internet. Acceptance of such claims as fact is increasing, despite the fact that they are often based on pseudoscientific claims or unverifiable evidence. This freshman seminar examines how scientific knowledge is accumulated, particularly knowledge about the past, and examines the methodological differences between science and pseudoscience in archaeology. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ANTH191  
Archaeology of Slavery, Colonialism, and Freedom  
One of the greatest contributions of archaeology is its ability to give voice to populations whose perspectives are poorly documented in historical records, such as slaves, through the material record of their past. Through an examination of recent archaeological studies of the slave trade, the conditions of slavery, the Underground Railroad, and life after emancipation in the eastern United States and the Caribbean, students will gain a greater understanding of the nature of American slavery, its colonial roots, and its aftermath. We will also compare American slavery with ancient examples of slaveholding societies. This is a Freshman Seminar. BoK: SS. Credit Level: U. Credit Hrs: 3.00
Anthropology

15ANTH280
Forensic Anthropology
recovery techniques; time since death estimation and other pertinent topics. Prereq: 15ANTH104, 15ANTH105, 15ANTH106. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

15ANTH290
Ecological Anthropology
Examines the ways in which societies interact with their environments. Topics include subsistence adaptations, population growth and regulation, ethnoecology, cooperative resource management, and globalization. Special consideration is given to the relevance of these topics for conservation and sustainable development. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15ANTH301
Cultural Resource Management
The protection and management of cultural heritage, including archaeological, historical and landscape data and objects, records, non-cultural materials, reports, and digital data. Course covers an overview of laws and regulations related to cultural resource management, including archaeological collections, historical preservation, and museums. The course includes a practicum. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15ANTH303
Southwest Prehistory
An introduction to the prehistoric cultural patterns and trends in the archaeological record of the American Southwest. Topics include the development of political, settlement, and economic systems. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH305
Maya Prehistory
An introduction to the prehistoric cultural patterns and trends in the archaeological record of ancient Maya and their immediate neighbors. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH308
New World Prehistory
Survey of selected cultural sequences in North, Middle, and South America prior to European contact, including both civilized and non-civilized cultures. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH309
Ohio Valley Prehistory
Sequence of cultures and development of archaeological research in eastern North America with emphasis on the Ohio Valley. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH319
Introduction to Afro-Brazilian Anthropology
The course explores the history and ethnography of the African diaspora in Brazil from the colonial period to the present. Topics will include development and current forms of Afro-Brazilian culture, the intersections of race, racism and identity, present-day social and economic problems facing Afro-Brazilians, and the emergence of grassroots movements and political activism. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH320
Balkan Peoples
People and cultures of SE Europe (Greece, Serbia, Bosnia, Rumania, etc.). Peasant life amid the larger societies. Ethnogeneses and interrelations of groups and the Balkan language area. Sources of ethnic conflict. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH322
Peoples of Siberia, Central Asia, and Turkey
Representative peoples, culture, and nature of adaptations to the arctic and subarctic ecological base. Cultural base of modern Turkey and Turkish secularization. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH325
Identities and Material Culture
This course will explore the ways in which the material world is implicated in the production and assertion of identity, and how the use of material culture to express identity can be interpreted in both modern and ancient contexts. The course takes an integrated anthropological approach. Case studies will be drawn from ethnoarchaeological and archaeological sources. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH326
Peoples of Japan
Reviews anthropological work on the nature of sociocultural systems of Japan. Attention to modernization and the maintenance of cultural integrity. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH327
Anthropology Junior Readings
Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH328
Anthropology Junior Readings
Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH329
Anthropology Junior Readings
Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH330
Honors Special Topics
Topics in anthropology for Honors students. Prereq: Permission of instructor. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ANTH333
Peoples of the Caribbean
The peoples and cultures of the Caribbean and circum-caribbean region. Overview of European colonialism and slavery and their impact on indigenous populations and on the social, religious, and ethnic identities of contemporary Caribbean peoples. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH334
Indians of Mexico and Guatemala
Aboriginal Indian and contemporary peasant cultures of Mexico and Guatemala. Prereq: 15ANTH102. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH335
Indians of North America
A description of modern Native American cultures of the United States and Canada, including history, social organization, and current issues. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH341
The Anthropology of Food
An exploration of the different approaches that anthropologists, ethnologists, biological anthropologists and linguists take to the study of food and its role in human societies. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15ANTH346
Country and City
The anthropological literature on movements between rural and urban spaces; cultural and symbolic transitions, hybridity, and identity transformations. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15ANTH354
Identities: Ethnic, Gender, Class, (Trans)National
Anthropological perspectives on identities, how they are formed, and how they change. Emphasis will be on ethnic identities and their interaction with other types of identities, such as gender, class, national, and transnational identities. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
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15ANTH354
Identities: Ethnic, Gender, Class, (Trans)National
Anthropological perspectives on identities, how they are formed, and how they change. Emphasis will be on ethnic identities and their interaction with other types of identities, such as gender, class, national, and transnational identities. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH355
Peoples of Lowland Tropical America
From Amazon to Mexico: the ecological and cultural diversity of peoples adapted to the lowland tropics; based on ethnographies and other materials. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH360
Origins of Agriculture
The processes by which people domesticated plants and intensified plant use are examined. Although a world-wide perspective will be taken, New World examples will be emphasized. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

15ANTH362
Origins of Civilization
The origins of complex community organization in both New and Old Worlds are examined. The effects of trade, warfare, large scale irrigation systems, and the influence of population growth will be assessed. Examples of these developmental trends will draw principally from Middle America and the Near East. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

15ANTH370
Historical Archaeology
Archaeology of the recent past, when written documentation is available, including colonial and post-colonial development. Includes an introduction to Ethnohistory as well as historic structures and sites. Prereq: 15ANTH107. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH379
Medical Anthropology II
This course builds on the Introduction to Medical Anthropology (279) with an emphasis upon clinically applied anthropology. Prereq: 15ANTH279. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH385
Stars, Time, and Culture
The use of astronomy and calendars in tribal and pre-industrial state societies and theories on the origins of primitive astronomical knowledge. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH413
Economic Anthropology
Covers contemporary and classic readings that focus on theories of households and women, especially in times of globalization with new forms of labor organization, migration and revised gender roles; looks at these factors at the household level and their relation to the larger world and includes research project on the effects of that larger world on households and individuals. Prereq: 15ANTH305, 15ANTH308. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ANTH418
Applied Anthropology
Pro-seminar on the practice and theory of applied anthropology (mainly, cultural anthropology), in both domestic and international, or cross-cultural, contexts. Prereq: 15ANTH101, 15ANTH102, 15ANTH103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH422
The Archaeological Record and Its Interpretation
Approaches for understanding the origins and the inferential potential of the archaeological record are presented. Case studies are drawn from prehistoric occupational horizons worldwide. Prereq: 15ANTH107, 15ANTH108. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

15ANTH423
Principles of Archaeological Analysis
An exploration of the theories and methods that archaeologists use to obtain chronological, behavioral, and organizational information from different kinds of archaeological assemblages and data bases. Prereq: 15ANTH107. BoK: SS, QR. Credit Level: U. Credit Hrs: 3.00

15ANTH437
Anthropology Senior Readings
Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH438
Anthropology Senior Readings
Topic and credit to be arranged with instructor. BoK: SS. Credit Level: U. Credit Hrs: 1.00-15.00

15ANTH440
Royal Courts of the Ancient New World
This course examines the institution of the royal courts in the ancient New World as a nexus for negotiation of power and assertion of cultural identity. Case studies concentrate on the Maya; Aztec and Inca cultures to provide important comparative contexts. We also explore the integration of textual and material evidence in investigating ancient cultures. Prereq: 15ANTH305, 15ANTH308. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

15ANTH471
Field Course in Archaeology: Southwest
Archaeological field methods involving participation in actual site survey and/or excavation in the American Southwest. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00-6.00

15ANTH472
Field Course in Archaeology: Mesoamerica
Archaeological field methods involving participation in actual site survey and/or excavation in Mesoamerica. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00-6.00

15ANTH473
Field Course in Archaeology: Midwest
Archaeological field methods involving participation in actual site survey and/or excavation in the American Midwest. BoK: HP, SS. Credit Level: U. Credit Hrs: 6.00-12.00

15ANTH489
Human Adaptation
Adaptation of humans to the environment, emphasizing climate, altitude, disease, nutrition and behavior. BoK: NS, SS. Credit Level: U. Credit Hrs: 3.00

15ANTH499
Senior Seminar
An advanced integrative course required of all anthropology majors. Dealing with core topics, new developments, ongoing debates, and current issues in anthropology as presented in a diverse set of media: books, articles, video, and the internet. Seminar format. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ANTH500
Sex and Gender in Language
Cross-cultural studies of men’s and women’s dialects. Noun classifiers and grammatical gender related to other features of language and culture. Prereq: Course in Linguistics and Cultural Anthropology or Sociology. BoK: SS, DC. Credit Level: U. G. Credit Hrs: 4.00

15ANTH504
Ethnographic Methods
Introduction to ethnographic research. Survey of qualitative research methods, experience in skills such as interviewing, observation and
Anthropology

15ANTH504
Ethnographic Methods
record-keeping. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH510
Biocultural Anthropology
Looks at the different perspectives of human behavioral ecology, dual inheritance theory, and evolutionary psychology, highlighting the strengths and weaknesses of each for understanding the ways in which cultural traits allow humans to adapt to novel evolutionary challenges. Prereq: 15ANTH104, 15ANTH105, 15ANTH106. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH512
Public Archaeology Internship
Practical experience in the conduct of preservation and/or contract archaeology, including the preparation of National Register nominations and field work and/or laboratory analysis and report preparation. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-8.00

15ANTH515
Water Management
A comparative treatment of water management systems in the archaeological and ethnographic record. BoK: HP., SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ANTH520
Anthropology and Archaeology
Explores the historical roots and contemporary relationship between sociocultural anthropology and archaeology. Applying case studies by British and American ethnographers and archaeologists, the course examines how each sub-discipline has influenced the other. Prereq: Recommended Anth107 or 108. Prereq: 15ANTH107. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH550
Anthropology of Race
Interdisciplinary course on biological, archeological, linguistic and cultural research and perspectives on contemporary human variation: race. Covers the history of concepts and their use in the public domain, as well as the scientific evidence and debate. BoK: DC., SE. Credit Level: U, G. Credit Hrs: 4.00

15ANTH555
Spatial Archaeology
The manipulation and use of physical space and settlement by past societies. The construction, maintenance, and distribution of vernacular architecture, both domestic and public, will be studied. Focus on archaeologically retrieved data. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH581
Individual Work Anthropology
Individual examination of an anthropological topic or problem under faculty direction and guidance. BoK: SS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ANTH582
Individual Work Anthropology
Individual examination of an anthropological topic or problem under faculty direction and guidance. This is the second part of three-course sequence. BoK: SS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ANTH583
Individual Work Anthropology
Individual examination of an anthropological topic or problem under faculty direction and guidance. The third part of a three-course sequence. BoK: SS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ANTH590
Human Osteology
Laboratory course on identification and recovery of human skeletal remains. Prereq: 15ANTH104. BoK: NS, SS. Credit Level: U, G. Credit Hrs: 4.00

Anthropology

15ANTH590
Human Osteology
Laboratory course on identification and recovery of human skeletal remains. Prereq: 15ANTH104. BoK: NS, SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH591
Human Skeletal and Dental Analysis
Introduction to methods of skeletal and dental analysis including measurement and description, non-metrical assessment, morphological variation, age-related changes, and the assessment of individual and population health. Builds upon basic knowledge of human osteology. Prereq: 15ANTH590. BoK: QR, SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH592
Current Topics in Anthropology
Review of current debates and findings in Anthropology. BoK: SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH593
Skeletal Biology and Archaeology
Covers topics in Anthropology, including the preparation of National Register nominations and field work and laboratory analysis and report preparation. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-8.00

15ANTH594
Human Origins
Evidence and theories on the origin and evolution of humankind. BoK: NS., SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH595
Evolution of Homo Sapiens
Evidence and theories on the origin and evolution of prehistoric and modern Homo sapiens. - BoK: NS., SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH620
Cultural Anthropology Field Practicum
Covers cultural anthropology methods such as mapping, kinship, field diary, questionnaires and interviews, photo/video, participant observation and a research and/or service project while living with a family in a community. May include local language classes for credit. Sites vary. Perm of Instructor. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-8.00

15ANTH630
Language and Linguistics
Nature of form and process in languages of the world from the perspective of linguistics as a social science. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH631
Language Types
Proseminar on strategies of non-historical language classification and typological change. Survey of major language families. Review of pertinent literature and recent research. Prereq: Advanced standing in Linguistics or permission of instructor. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH632
Ethnolinguistics
Relationships of linguistic variation to other cultural variables including social organization and world view. The linguistic relativity hypothesis, linguistic inference and prehistoric culture. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH643
Special Topics in Anthropology
Special topics in anthropology. May be repeated if topics vary. BoK: SS. Credit Level: U, G. Credit Hrs: 4.00

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15ANTH647 History and Theory of Anthropology
Growth of anthropology; examination of major theoretical positions in cultural anthropology. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH648 Contemporary Anthropological Theory
A treatment of anthropological theory since 1960, with emphasis on cultural anthropology. Prereq: 15ANTH647. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 4.00

15ANTH696 Archaeological Theory
Historical survey of, and recent trends in, archaeological theory, with emphasis on the scientific aspects of archaeological research. Prereq: 15ANTH107. BoK: HP, SS. Credit Level: U, G. Credit Hrs: 4.00

15ANTH690 Seminar in Ecological Anthropology
Examines the ways in which societies interact with their environments. Topics include subsistence adaptations, population growth and regulation, ethnology, cooperative resource management, and globalization. Special consideration will be given to the relevance of these topics for conservation and sustainable development. Credit Level: G. Credit Hrs: 4.00

15ANTH700 Fundamentals of Anthropology
A critical examination of the history, methods, and theory of four-field anthropology. Credit Level: G. Credit Hrs: 4.00

15ANTH701 Advanced Cultural Resource Management
Advanced methods in the protection and management of cultural heritage, including archaeological, historical and landscape data and objects, records, non-cultural materials, reports, and digital data. This course covers an overview of laws and regulations related to cultural resource management, including archaeological collections, historical preservation, and museums. The course includes a practicum. Credit Level: G. Credit Hrs: 4.00

15ANTH703 Southwest Archaeology
A discussion of patterns and trends in the archaeological record of the American Southwest. Topics include political, settlement, and economic systems. Credit Level: G. Credit Hrs: 4.00

15ANTH705 Maya Archaeology
Discussion of patterns and trends in the archaeological record of lowland and highland Maya. Credit Level: G. Credit Hrs: 4.00

15ANTH708 New World Archaeology
Survey of selected cultural sequences in North, Middle and South America prior to European contact, including both civilized and non-civilized cultures. Credit Level: G. Credit Hrs: 4.00

15ANTH709 Ohio Valley Archaeology
Sequence of cultures prior to European contact and development of archaeological research in eastern North America with emphasis on the Ohio Valley. Credit Level: G. Credit Hrs: 4.00

15ANTH710 Individual Work in Anthropology
Topic to be arranged with professor. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH711 Individual Work in Anthropology
Topic to be arranged with professor. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

Anthropology

15ANTH712 Individual Work in Anthropology
Topic to be arranged with professor. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH713 Seminar in Economic Anthropology
Seminar on the impact of world political and economic systems on household, using anthropological theories to understand forms of labor, migration and revised gender roles. Credit Level: G. Credit Hrs: 4.00

15ANTH715 Master's Thesis Research
Topic to be arranged with professor. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH716 Master's Thesis Research
Topic to be arranged with professor. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15ANTH718 Advanced Applied Anthropology
Pro-seminar on the practice and theory of applied anthropology (mainly, cultural anthropology), in both domestic and international, or cross-cultural, contexts. Credit Level: G. Credit Hrs: 4.00

15ANTH719 Afro-Brazilian Ethnography
The course explores the history and ethnography of the African diaspora in Brazil from the colonial period to the present. Topics will include development and current forms of Afro-Brazilian culture, the intersections of race, racism and identity, present-day social and economic problems facing Afro-Brazilians, and the emergence of grassroots movements and political activism. Credit Level: G. Credit Hrs: 4.00

15ANTH720 Balkan Ethnography
Peoples and cultures of SE Europe (Greece, Serbia, Bosnia, Rumania, etc.), Peasant life amid the larger societies. Ethnogeneses and interrelations of groups and the Balkan language area. Sources of ethnic conflict. Credit Level: G. Credit Hrs: 4.00

15ANTH722 Advanced Topics in Archaeological Interpretation
Attention focuses on how consideration of cultural and natural formation processes affects the interpretation of archaeological variability. Credit Level: G. Credit Hrs: 4.00

15ANTH723 Assemblage Analysis
Advanced theories and methods in archaeological analysis. Credit Level: G. Credit Hrs: 4.00

15ANTH725 Archaeology of Identity
This course will explore the ways in which the material world is implicated in the production and assertion of identity, and how the use of material culture to express identity can be interpreted in both modern and ancient contexts. The course takes an integrated anthropological approach. Case studies will be drawn from ethnographic and archaeological sources. Credit Level: G. Credit Hrs: 4.00

15ANTH726 Ethnography of Japan
Reviews anthropological work on the nature of sociocultural systems of Japan. Attention to modernization and the maintenance of cultural integrity. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
### Anthropology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15ANTH727</td>
<td>Ethnography of Siberia, Central Asia, and Turkey</td>
<td>Representative peoples, culture, and nature of adaptations to the arctic and subarctic ecological base. Cultural base of modern Turkey and Turkish secularization. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15ANTH729</td>
<td>Advanced Topics in Linguistic Anthropology</td>
<td>Advanced topics in the study of linguistic systems, from an anthropological perspective, with focus on language structure, language use, and language change. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>15ANTH733</td>
<td>Caribbean Ethnography</td>
<td>The peoples and cultures of the Caribbean and circum-Caribbean region. Overview of European colonialism and slavery and their impact on indigenous populations and on the social, religious and ethnic identities of contemporary Caribbean peoples. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15ANTH734</td>
<td>Mesoamerican Ethnography</td>
<td>Aboriginal Indian and contemporary cultures of Mexico and Guatemala. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>15ANTH735</td>
<td>North America Indian Ethnography</td>
<td>Ethnography and ethnology of Native North American societies. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15ANTH740</td>
<td>Ancient New World Nobility</td>
<td>Examines the institution of the royal courts in the ancient New World as a nexus for negotiation of power and assertion of cultural identity. Case studies concentrate on the Maya, Aztec, and Inca cultures to provide important comparative contexts. We also explore the integration of textual and material evidence in investigating ancient cultures. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15ANTH741</td>
<td>Seminar: Food Research in Anthropology</td>
<td>An exploration of the different approaches that archaeologists, ethnologists, biological anthropologists, and linguists take to the study of food and its role in human societies. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15ANTH746</td>
<td>Country and City Seminar</td>
<td>The anthropological literature on movements between rural and urban spaces. It will treat cultural and symbolic transitions, hybridity, and identity transformations. Credit Level: G. Credit Hrs: 3.00-4.00</td>
</tr>
<tr>
<td>15ANTH750</td>
<td>Anthropology of Religion</td>
<td>Cross-cultural comparative study of systems of ritual and belief, particularly as related to other aspects of culture. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15ANTH751</td>
<td>Advanced Introduction to Biological Anthropology</td>
<td>Advanced introduction to evolutionary theory and primate ecology. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>15ANTH752</td>
<td>Advanced Introduction to Biological Anthropology</td>
<td>Advanced introduction to primate mating strategies, life history theory, social behavior, and the fossil record. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>15ANTH753</td>
<td>Advanced Introduction to Biological Anthropology</td>
<td>Advanced introduction to human evolution, behavioral ecology and biological variation in contemporary populations. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
</tbody>
</table>

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H=University Honors course.

Arabic Languages and Culture

15ARAB110
Reading and Writing for Arabic Speakers
Reading and writing instruction for heritage speaker of Arabic. Some grammar and vocabulary with an emphasis on calligraphy and alphabet. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ARAB151
Colloquial Arabic I
Introduction to the phonology, morphology, and syntax of the spoken language of educated urbanites of the eastern Arab world. Does not fulfill the foreign language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15ARAB152
Colloquial Arabic II
Continuation of 151; analysis of and drill in morphological and syntactic patterns; expansion of vocabulary; practice in conversation. Prereq: 15ARAB151. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ARAB153
Colloquial Arabic III
Course is a continuation of 152. Intensive practice in speaking colloquial Arabic with emphasis on various cultural aspects of Arab life. Prereq: 15ARAB152. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ARAB201
Second Year Literary Arabic 1
Intermediate Arabic literary language and culture. First quarter in a 3-quarter sequence; continuation of the Basic Literary Arabic course. DC HU Prereq: 15ARAB103. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15ARAB202
Second Year Literary Arabic 2
Intermediate Arabic literary language and culture. Second quarter in an intensive 3-quarter sequence. DC HU Prereq: 15ARAB201. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15ARAB203
Second Year Literary Arabic 3
Intermediate Arabic literary language and culture. Third quarter in an intensive 3-quarter sequence. DC HU Prereq: 15ARAB202. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15ARAB301
Advanced Intermediate Literary Arabic I
Reading skills through adapted and authentic Arabic texts: aural comprehension, conversation, and controlled compositions on various aspects of Arabic culture. BoK: NA. Credit Level: U. Credit Hrs: 5.00

15ARAB302
Advanced Intermediate Literary Arabic II
Continues Arabic 301 in the development of advanced intermediate level of proficiency. Prereq: 15ARAB301. BoK: NA. Credit Level: U. Credit Hrs: 5.00

15ARAB303
Advanced Intermediate Literary Arabic III
Course continues the development of advanced intermediate level of proficiency, transforming passive skills into active ones and introducing a range of literary genres, styles, themes, and periods. Prereq: 15ARAB302. BoK: NA. Credit Level: U. Credit Hrs: 5.00

15ARAB310
Culture of Contemporary Arabic Society
An analytical study of the cultural traits and patterns of contemporary Arab society. It examines the development of its language and dialects, family structure, beliefs and traditions, sectarianism, and challenges of modernization as depicted in some recent Arabic literature, music, and art. DC HU BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15ARAB310H
Culture of Contemporary Arabic Society
This course examines the cultural traits and patterns of contemporary Arab society, including the development of its language and dialects.
Arabic Languages and Culture

15ARAB310H
Culture of Contemporary Arabic Society
beliefs, customs, and traditions within the framework of a dynamically changing society that attempts to promote change without sacrificing continuity and to pursue development without losing identity. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15ARAB311
Arab-American Culture
Students discuss, analyze, and write about issues in Arab-American culture, society, and literature within the context of social diversity in the United States. Taught in English. DC HU BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15ARAB320
Modern Arabic Literature in Translation
This course surveys the development of modern Arabic literature and the influence of Western literary genres. Poetic selections, short stories novels, and plays of wide-ranging orientation (romantic, mystical, socio-political, religious, and philosophical) are read and critically discussed with reference to their historical and cultural contexts and literary techniques. Taught in English. DC LT BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15ARAB321
Classical Arabic Literature in Translation
Survey in English of classical & medieval Arabic poetry & prose genres developed between 5th & 16th centuries & literary styles & conventions. Incl: heroic odes, Qur'anic, philosophical, aesthetic, mystical narratives, fables, epistles, erotic tales, love lyrics, drama & folkloric romances. DC LT BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15ARAB322
Arabic Women Novelists
This course examines, in English translation, novels by Arab women writers with reference to Arab and Western feminist theories. It explores themes such as the conflict between tradition and modernity, sexuality, literary discourse, neo-patriarchy, and war; religion, imperialism, and sexual politics; and the construction of individual and national identity. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15ARAB323
Love and Sexuality in Arabic Literature
Examines themes of love and sexuality as depicted in texts from pre-Islamic poetry and the Qur'an to Arabian Nights and Modern Arabic Literature, including: courtly and mystical love poetry, erotic awareness and structures, the female body and literary discourse, sexual politics, and patriarchal sexuality. DC LT BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15ARAB401
Advanced Literary Arabic 1
The series 401, 402, 403 emphasize reading, translating, and analyzing classical, medieval and modern Arabic literary and cultural texts of different genres and themes, communicating through written assignments and oral presentations, and acquiring an understanding of Arabic structure, syntax, and style. This class is conducted in Arabic. Prereq: 15ARAB303. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15ARAB402
Advanced Literary Arabic 2
Continuation of 15-ARAB-401. Conducted in Arabic Prereq: 15ARAB401. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15ARAB403
Advanced Literary Arabic 3
Continuation of 15-ARAB-402. Conducted in Arabic. Prereq: 15ARAB402. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15ARAB411
Literary Arabic Grammar I
Accelerated introduction to the structure of Modern Standard and Classical Arabic: phonology, morphology, and syntax, with emphasis on translation exercises and the development of reading comprehension skills. Perm of Instructor. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ARAB412
Literary Arabic Grammar II
Analysis of more complex structures of Arabic to enable students to comprehend authentic Modern Standard and classical Arabic texts. Prereq: 15ARAB411. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ARAB481
Arabic Capstone
A seminar for graduating seniors to discuss and analyze common readings, to reflect on methodological issues, and to exchange ideas with other students sharing related issues. The course will require completion of an independent research project. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15ARAB511
History of the Arabic Language
Survey of the development of the Arabic language from its origins to the present, with emphasis on the externally motivated changes that led to its evolution from a tribal dialect into an international literary language. Perm of Instructor. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ARAB591
Independent Study In Arabic
Previous written approval of instructor and undergraduate adviser required. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ARAB592
Independent Study In Arabic
Previous written approval of instructor and undergraduate adviser required. The second offering in a three-part course sequence. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ARAB593
Independent Study In Arabic
Previous written approval of instructor and undergraduate adviser required. The third offering in a three-part course sequence. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ARAB594
Group Study in Arabic Studies
An instructor-supervised collective study of a topic in Arabic language, literature or culture. (repeatable up to 15 hours) Perm of Instructor. BoK: LT, DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

15ARAB581
Basic Literary Arabic 1 for Graduate Students
This course is open to graduate students taking Arabic 101, which develops reading, speaking, listening, writing, and cultural skills in Modern Literary Arabic. No previous knowledge of Arabic is required. Students attend one of the sections of Arabic 101. Credit Level: G. Credit Hrs: 3.00

15ARAB582
Basic Literary Arabic 2 for Graduate Students
This course is open to graduate students taking Arabic 102, which continues Arabic 101 in the development of elementary level proficiency. Students attend one of the sections of Arabic 102. Prereq: 15ARAB581. Credit Level: G. Credit Hrs: 3.00

15ARAB583
Basic Literary Arabic 3 for Graduate Students
This course is open to graduate students taking Arabic 103, which continue Arabic 102 in the development of elementary level proficiency. Students attend one of the sections of Arabic 103. Prereq: 15ARAB582. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15ASIA101</td>
<td>Elementary Japanese</td>
<td>Fundamental patterns of modern Japanese with emphasis on spoken language. Mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA102</td>
<td>Elementary Japanese</td>
<td>Fundamental patterns of modern Japanese with emphasis on spoken language. Mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The second offering in a three-part course sequence. Prereq: 15ASIA101. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA104</td>
<td>Elementary Chinese</td>
<td>Basic patterns of modern Chinese with emphasis on spoken language. Mastery of about 300 Chinese characters is expected. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA105</td>
<td>Elementary Chinese</td>
<td>Basic patterns of modern Chinese with emphasis on spoken language. Mastery of about 300 Chinese characters is expected. The second offering of a three-part course sequence. Prereq: 15ASIA104. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA106</td>
<td>Elementary Chinese</td>
<td>Basic patterns of modern Chinese with emphasis on spoken language. Mastery of about 300 Chinese characters is expected. The third offering of a three-part course sequence. Prereq: 15ASIA105. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA161</td>
<td>Intensive Japanese for International Co-op students</td>
<td>This is the first in a series of language/culture courses, which prepare students participating in the International co-op Program for a five-months co-op assignment in Japan. The course focuses on communicative language use while establishing fundamental understanding of the Japanese language. It also provides students with cultural information and an understanding of the Japanese people and the Japanese work environment. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 6.00</td>
</tr>
<tr>
<td>15ASIA201</td>
<td>Intermediate Japanese</td>
<td>Aims at basic proficiency in spoken language; additional 200-300 Japanese characters are also introduced. Prereq: 15ASIA103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA202</td>
<td>Intermediate Japanese</td>
<td>Aims at basic proficiency in spoken language; additional 200-300 Japanese characters are also introduced. The second offering of a three-part course sequence. Prereq: 15ASIA201. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA203</td>
<td>Intermediate Japanese</td>
<td>Aims at basic proficiency in spoken language; additional 200-300 Japanese characters are also introduced. The third offering of a three-part course sequence. Prereq: 15ASIA202. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA204</td>
<td>Intermediate Chinese</td>
<td>Aims at basic proficiency in spoken Chinese (Mandarin); additional 300 Chinese characters are also introduced. Prereq: 15ASIA203. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA205</td>
<td>Intermediate Chinese</td>
<td>Aims at basic proficiency in spoken Chinese (Mandarin); additional 300 Chinese characters are also introduced. The second offering of a three-part course sequence. Prereq: 15ASIA204. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA206</td>
<td>Intermediate Chinese</td>
<td>Aims at basic proficiency in spoken Chinese (Mandarin); additional 300 Chinese characters are also introduced. The third offering of a three-part course sequence. Prereq: 15ASIA205. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15ASIA214</td>
<td>Intermediate Chinese I</td>
<td>First quarter of intensive intermediate Chinese (Mandarin), builds upon the 100-level introductory courses in Chinese. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00</td>
</tr>
<tr>
<td>15ASIA215</td>
<td>Intermediate Chinese II</td>
<td>Second quarter of intensive intermediate Chinese (Mandarin). BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00</td>
</tr>
<tr>
<td>15ASIA216</td>
<td>Intermediate Chinese III</td>
<td>Third quarter of intensive intermediate level Chinese (Mandarin). BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00</td>
</tr>
<tr>
<td>15ASIA224</td>
<td>Intermediate Intensive Chinese</td>
<td>This is an Intensive Course for Chinese Language. It facilitates the listening, speaking, writing, and reading required for effectively learning the language. Students will become familiar with the ways (in theory and via interaction with local people) to communicate, make a point, exchange ideas, and develop problem solving strategies, specifically within the social and cultural aspects of cultural differences. Open to students who have completed one year of college-level Mandarin Chinese. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00-5.00</td>
</tr>
</tbody>
</table>
| 15ASIA225  | Contemporary Chinese Culture                          | This is a course in contemporary Chinese culture designed to complement the Intensive Course for Chinese language that takes
Asian Languages

15ASIA225
Contemporary Chinese Culture
place in China. This program is open to students in good academic
standing, and who have successfully completed one year of college-
level Mandarin Chinese or equivalent coursework. Assignments will
include reading and reacting to pertinent texts on Chinese culture, and
comparing daily observations of Chinese culture to readings and class
discussions. Students will maintain a daily journal, prepare class
presentations and writing assignments. BoK: HU., DC. Credit Level: U.
Credit Hrs: 3.00 -5.00

15ASIA301
Japanese Composition and Conversation
Class conducted in Japanese, Using readings from various subject
areas. Proficiency in reading and speaking Japanese will be stressed.
Prereq: 15ASIA203. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA302
Japanese Composition and Conversation
Class conducted in Japanese, Using readings from various subject
areas. Proficiency in reading and speaking Japanese will be stressed.
The second offering of a three-part course sequence. Prereq.: 15-021-
201,2,3 or equiv. Prereq: 15ASIA301. BoK: HU, DC. Credit Level: U.
Credit Hrs: 3.00

15ASIA303
Japanese Composition and Conversation
Class conducted in Japanese, Using readings from various subject
areas. Proficiency in reading and speaking Japanese will be stressed.
The third offering of a three-part course sequence. Prereq.: 15-021-
201,2,3 or equiv. Prereq: 15ASIA302. BoK: HU, DC. Credit Level: U.
Credit Hrs: 3.00

15ASIA361
Language and Cultural Immersion (Nagoya, Japan)
This course includes a four-week intensive Language and Culture
Program at the Nagoya University of Foreign Studies in Japan. While
attending the school, students will stay with a host family. After
completing the intensive course, the students will relocate to Tokyo and
stay with another host family for a week. Hands-on cultural programs
will be available for all the students, and advanced students will have an
opportunity to take cultural classes. Students must contact the
Japanese Program upon registration. BoK: NA. Credit Level: U. Credit
Hrs: 5.00-10.00

15ASIA364
Japanese Language and Culture I for International Co-op Program
This course follows the summer course and is designed for students
who are visiting Japan to work and/or study in the future. The students
will review the basic grammatical items and gradually develop their
ability to comprehend authentic materials in listening and reading. Perm
of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ASIA481
Individual Work in Asian Studies
Open only to those in the programs leading to the BA or the Certificate
in Asian Studies. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ASIA482
Individual Work in Asian Studies
Open only to those in the programs leading to the BA or the Certificate in
Asian Studies. The second offering of a three-part course sequence.
Prereq.: Perm. of instr. and Chairperson of Committee on Asian
Studies. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ASIA483
Individual Work in Asian Studies
Open only to those in the programs leading to the BA or Certificate in
Asian Studies. The third offering of a three-part course sequence.
Prereq.: Perm. of instr. and Chairperson of Committee on Asian
Studies. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ASIA491
Senior Project in Asian Studies
Open only to the Asian Studies major in the senior year. May focus on
one discipline or may be interdisciplinary. Directed readings, research,
or other learning experiences designed to provide cohesion to the
individual's program of study. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15ASIA492
Senior Project in Asian Studies
Open only to the Asian Studies major in the senior year. May focus on
one discipline or may be interdisciplinary. Directed readings, research,
or other learning experiences designed to provide cohesion to the
individual's program of study. The second offering of a three-part course
sequence. Prereq.: Perm. of instr. and Chairperson of Committee on
Asian Studies. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15ASIA493
Senior Project in Asian Studies
Open only to the Asian Studies major in the senior year. May focus on
one discipline or may be interdisciplinary. Directed readings, research,
or other learning experiences designed to provide cohesion to the
individual's program of study. The third offering of a three-part course
sequence. Prereq.: Perm. of instr. and Chairperson of Committee on
Asian Studies. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15ASIA501
Elementary Conversation Japanese
For graduate beginners, emphasis on spoken modern Japanese;
mastery of Hiragana and Katakana and up to 200 Japanese characters
is also expected. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15ASIA502
Elementary Conversation Japanese
For graduate beginners, emphasis on spoken modern Japanese;
mastery of Hiragana and Katakana and up to 200 Japanese characters
is also expected. The second offering of a three-part course sequence.
Prereq.: 15ASIA501. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA503
Elementary Conversation Japanese
For graduate beginners, emphasis on spoken modern Japanese;
mastery of Hiragana and Katakana and up to 200 Japanese characters
is also expected. The third offering of a three-part course sequence.
Prereq: 15ASIA502. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA504
Elementary Conversation Chinese
For graduate beginners, emphasis on spoken modern Chinese. Master
of about 300 Chinese characters is expected. BoK: HU., DC. Credit
Level: U. Credit Hrs: 3.00

15ASIA505
Elementary Conversation Chinese
For graduate beginners, emphasis on spoken modern Chinese. Mastery
of about 300 Chinese characters is expected. The second offering of a
three-part course sequence. Prereq.: 15-021-504 or perm. of instr.
Prereq: 15ASIA504. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA506
Elementary Conversation Chinese
For graduate beginners, emphasis on spoken modern Chinese. Mastery
of about 300 Chinese characters is expected. The third offering of a
three-part course sequence. Prereq.: 15-021-504 or perm. of instr.
Prereq: 15ASIA505. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ASIA550
Introduction to Asian Studies
Interdisciplinary survey of the issues and methods in Asian Studies.
Examines the influence of Asia's historical and cultural traditions on
contemporary politics, policies, and society. BoK: DC., HU. Credit Level:
U, G. Credit Hrs: 3.00 -4.00

H=University Honors course.
Asian Languages

15ASIA581
Independent Study
Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

15ASIA582
Independent Study
See: 15-021-581. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

15ASIA583
Independent Study
See: 15-021-581. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

Biological Sciences

15BIOL101
Biology
The sequences Biology 101, 102, 103 taken concurrently with Biol. 111, 112, 113, fulfills the natural Science requirement in Arts and Sciences as well as the beginning course required of major and preprofessional students. Topics covered in Biol. 101 include: geologic time scale; origin of life; atoms and molecules; cell structure, biochemistry, physiology and division; plant tissues and origins; plant nutrition; nitrogen cycle. Coreq.: Biol. 111. Credit Level: U, G. Credit Hrs: 3.00

15BIOL101H
Honors Biology
An honors course associated with first year biology. Three lectures and one recitation per week. Coreq.: 15BIOL111H. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL102
Biology
Continuation of a sequence designed for biology majors and preprofessional students. Topics covered include: nuclear and cell division, Mendelian and molecular genetics, the gene, DNA, population biology, and plant diversity. Pre-req.: 15BIOL101; Co-req.: 15BIOL112. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL102H
Honors Biology

15BIOL103
Biology
Continuation of sequence designed for Biology majors and preprofessional students. Topics covered include: animal diversity; animal develop; nerves; muscle; circulation; respiration; homeostasis; ecology. Pre-req.: 15BIOL102; Co-req.: 15BIOL113. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL103H
Honors Biology

15BIOL104
Life on Earth: Evolution, Diversity, and Ecology
Organismal biology, including the evolution of life on earth, the classification of contemporary life, and the fundamentals of ecology. For non-science majors. Pre-req.: None. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL105
How Life Reproduces: Genetics
Basic principles of genetics including how genetic information is stored, reproduced, inherited, expressed and mutated. The relevance of these basic genetic principles to current social issues such as human genetic diseases, genetic cloning, biotechnology, drug development and cancer is discussed. For non-science majors. Pre-req.: None. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL106
How Life Works: From Cells to Organisms
Cell structure from bacteria through multicellular organisms, how cells function and produce or use energy; organization of complex organisms, and how these organisms interact with their environment. For non-science majors. Pre-req.: None. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL111
Biology Laboratory
Designed for students to see and experiment with plants and animals, materials and methods discussed in the lecture. An introduction to modern biological techniques. Topics are complementary to the lectures for that quarter. Coreq.: 15BIOL101. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15BIOL111H
Lab: Honors Biology & Recitation
Description not available. Coreq.: 15BIOL101H. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15BIOL112
Biology Laboratory
Designed for students to see and experiment with plants and animals, materials and methods discussed in the lecture. An introduction to modern biological techniques. Topics are complementary to the lectures for that quarter. This is the second offering of a three-course sequence. Coreq.: Biol. 102. Credit Level: U. Credit Hrs: 2.00

15BIOL112H
Honors Biology Laboratory
An honors laboratory course associated with first year biology, with one lab per week. The third offering of a three-part course sequence. Coreq.: 15BIOL102. Credit Level: U. Credit Hrs: 2.00

15BIOL113
Biology Laboratory
Designed for students to see and experiment with plants and animals, materials and methods discussed in the lecture. An introduction to modern biological techniques. Topics are complementary to the lectures for that quarter. This is the second offering of a three-course sequence. Coreq.: Biol. 103. Credit Level: U. Credit Hrs: 2.00

15BIOL113H
Honors Biology Laboratory

15BIOL122
Plants and Society
Discussion of economically important plants used by humans in the past and present with a focus on the biology of agricultural and medicinal plants. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL123
AIDS: Biomedical, Social and Ethical Issues
An examination of the AIDS crisis in terms of biomedical, social, and ethical issues. Acknowledge of basic biology is not needed. There are no prerequisites. Satisfies the "Social and Ethical Issues" requirement of the General Education curriculum; does not fulfill biology major requirements. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15BIOL124
Biotechnology in the 21st century: Biomedical, Social and Ethical Issues
The methods and uses of Biotechnology with emphasis on the Biotechnical, Social and ethical issues is discussed. For non-science majors. Pre-req.: None. Transfer Module. BoK: SE. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Biological Sciences

15BIOL131 Genetics and Society
Principles of genetics as applied to humans. Includes DNA technology and genetic engineering, sexual reproduction and genetic variation, ethical, legal, and social issues of human genetics, issues of quantity and quality of the human gene pool, and practical applications of these topics to individuals and society. For non-science majors. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL132 Plants and People
Descriptions of current and historical uses people have made of plants; economic impact of plants; plant involvement in human disease and pests. For non-biology majors. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL133 Microbes And Society
This course will provide students with an understanding of the significant impact that microorganisms have on human populations, as well as use microorganisms as a model system to provide students with a basic understanding of key concepts in biology. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL140 The Power of Plagues
Enhances general awareness and understanding of infectious diseases. Covers several disease outbreaks or epidemics (plagues) that were important to Western civilizations. Students learn how scientists found out what caused specific epidemics and how they developed methods to control, cure or prevent them. The course also discusses plagues in the context of history and how they impacted on the practices, values, and traditions observed in today's culture. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL181 At the Zoo: Biodiversity
Survey of animal kingdom using Zoo collection to understand group distinctions. Legal and demographic aspects of captive populations, and role of zoo in maintenance of endangered species. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL182 At the Zoo: Behavior
Physical and behavioral adaptation by animals to their natural habitats using animals in the zoo collections as examples BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL183 At the Zoo: Ecology
Description of world's ecosystems and habitats with emphasis on conservation issues. Use of zoo collection for demonstration. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL187 Horticulture I
The first of a three-part series intended to teach students basic horticulture science concepts and principles. The focus of Horticulture I is on the botanical concepts of plant structure, growth, and development. Students gain an understanding of the plant kingdom and classification, basic morphology and physiological functions. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL188 Horticulture II
The second of a three-part series intended to teach students the basics of horticulture science concepts. The focus of Horticulture II is on plant growth and development as a response to environmental conditions and management techniques. During this course students will learn the relationships between horticulture and ecological processes. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL189 Horticulture III
The third of a three-part series intended to teach students the basics of horticulture science concepts and principles. The focus of Horticulture III is on biotic and abiotic plant stressors including diseases, insects, and competitors for nutrients. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL201 Anatomy and Physiology I
A lecture and laboratory course on the structure and function of the human body. No credit for biology majors. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL202 Anatomy and Physiology II
A continuation of Anatomy and Physiology I. Prereq: 15BIOL201. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL203 Anatomy and Physiology
A continuation of Anatomy and Physiology II. Prereq: 15BIOL202. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL271 Elementary Microbiology
Fundamental aspects of microbiology and immunity; role of microorganisms in disease. No credit for biology majors. Prereq: Course in biological science. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL301 Cell Structure and Function
Lectures and labs on the integration of structure and function in cells. Topics include protein structure and function, cell membranes and transport systems, organelles, both function and biogenesis and the cytoskeleton. Also covered are aspects of regulation of cell function including signal transduction and regulation of the cell cycle. Prereq: 15BIOL103, 15CHEM103. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15BIOL302 Genetics
Lectures and Lab on the scope and significance of modern genetics including molecular genetics, Mendelian genetics and population genetics. Prereq: 15CHEM103, 15BIOL103, 15BIOL102. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15BIOL303 Ecology
Lecture and lab on the basic principles of ecology with an evolutionary perspective, including adaptation of organisms to environments, population and community ecology, ecosystem structure and function, and conservation biology. Field trips. Prereq: 15BIOL103, 15CHEM103. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL304 Cell Biology for Chemistry Majors(BioChemistry Concentration)
An introduction to the principles which define organelles, cells and tissues. Topics include protein structures, membranes, molecular motors, sensory receptors, and immune recognition. For Chemistry majors following the BioChemistry concentration. Prereq: 15BIOL101, 15BIOL102, 15BIOL103, 15CHEM101, 15CHEM102. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL321 Introduction to Research and Careers
Through this course students will develop an understanding of the process of research in biology. Research presentations will be made by faculty engaged in research and students will be introduced to the primary literature in conjunction with these presentations. Presentations will also introduce students to career possibilities in biology. BoK: NS. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.
Biological Sciences

15BIOL460
Botany
Introductory botany. A survey of the major concepts in the plant sciences. Molecular, cellular, anatomical, morphological, individual-level, taxonomical, populational, and evolutionary topics will be examined. The major ways in which plants and humans interact will also be reviewed. Prereq: 15BIOL102, 15BIOL112. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL498
Internship in Biology
Field experience related to biology working with career professionals (paid or volunteer) under the guidance of the Department of Biological Sciences. Experience should provide education, training or instruction. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

15BIOL520
Invertebrate Zoology
An introduction to the diversity of invertebrate animal life, including adaptive morphology, comparative physiology, behavior, ecology, and evolution of major phyla. Lec. and lab. Prereq: 15BIOL303. BoK: NS. Credit Level: U. G. Credit Hrs: 4.00

15BIOL535
Lab-Exercise Development in Anatomy and Physiology
Development and implementation of laboratory exercises in anatomy and physiology. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

15BIOL540
Neurobiology
Lectures and discussion of the biophysics and physiology of cells in the nervous system, and the mechanisms by which neural circuits process information. Prereq: 15BIOL301. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15BIOL550
Animal Behavior
A broadly comparative introduction to animal behavior with some emphasis on evolutionary and ecological interpretations of behavioral diversity. Prereq: 15BIOL303. BoK: NS. Credit Level: U. G. Credit Hrs: 3.00

15BIOL551
General Microbiology
An overview of the diversity, genetics, physiology, and ecology of microorganisms, with an emphasis on bacteria, archaea, and viruses. This is an organismal biology course and will focus on what sets these microorganisms apart from plants and animals. This course will provide the necessary background for upper-level courses in bacterial genetics, immunology, pathogenic microbiology, prokaryotic physiology, eukaryotic microbiology, environmental engineering, and microbial ecology. Prereq: BIOL301, BIOL302, and Organic Chemistry. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U. G. Credit Hrs: 3.00

15BIOL552
General Microbiology Laboratory
Laboratory to accompany BIOL551 (co-req) which explores the identification, characterization, and metabolic capabilities of microorganisms, using appropriate sterile technique, culturing and microscopy skills. Prereq: 15BIOL302, 15BIOL301, 15SCHEM203. Coreq: 15BIOL551. BoK: NA. Credit Level: U. G. Credit Hrs: 2.00

15BIOL565
Medical Botany
Physiological and biochemical aspects of plants and plant products. Will fulfill departmental Capstone requirement. Prereq: 15BIOL301. BoK: NS. Credit Level: U. G. Credit Hrs: 3.00

15BIOL571
Animal Physiology
This course explores comparative physiology at the organismal level. The emphasis is on basic principles of physiological processes. Prereq: 15BIOL301. BoK: NS. Credit Level: U. G. Credit Hrs: 3.00

H=University Honors course.
Biological Sciences

15BIOL599
Eukaryotic Genetics
Recombinant DNA technology and the analysis of DNA sequences stressing eukaryotic examples. The laboratory provides experience with the basic techniques of recombinant DNA technology. Will fulfill departmental requirement. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15BIOL600
Undergraduate Research
Credits and hours to be arranged. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL601
Undergraduate Research
Credits and hours to be arranged. Will fulfill departmental Capstone requirement. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL602
Undergraduate Research
Credits and hours to be arranged. Will fulfill departmental Capstone requirement. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL603
Undergraduate Research
Credits and hours to be arranged. Will fulfill departmental Capstone requirement. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL604
Special Problems
Undergraduate individual study. Cr. and hrs. to be arranged. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL605
Special Problems
See 15-047-604. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL606
Special Problems
See 15-047-604. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15BIOL610
Conservation Biology
The application of ecological and evolutionary principles to the study and preservation of genetic, species and ecosystem diversity. Formerly known as Conservation Biology 15BIOL490. Prereq: 15BIOL303. BoK: NS, QR. Credit Level: U. G. Credit Hrs: 3.00

15BIOL616
Biological Problems Honors Research
For Honors students only. Individual research projects. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15BIOL617
Biological Problems Honors Research
For Honors students only. Individual research projects. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15BIOL618
Biological Problems Honors Research
For Honors students only. Individual research projects. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15BIOL626
Ecological Modeling
An advanced undergraduate/graduate level lecture class providing an overview of the many types and ways in which models are used in Ecology. Investigates and develops models at all levels of organization from global climate models to individual behavioral models. Cross-listed with EVST626. Prereq: 15BIOL303. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

Biological Sciences

15BIOL631
Lab-Exercise Development in Cell Biology
Development and implementation of laboratories in cell biology. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

15BIOL632
Lab-Exercise Development in Genetics
Development and implementation of laboratories in genetics. Cr. and hrs. to be arranged. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

15BIOL633
Lab-Field Exercise Development in Ecology
Development and implementation of laboratories and field exercises in ecology. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.00

15BIOL639
Virology
An introduction to the molecular biology of viruses. Topics include: genome structure, mechanisms of infection, proliferation, pathogenicity, host resistance and the role which viruses have played in the evolution of the human genome. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL640
Introduction to Genomics
Discussion on the language of life. Topics include the structure of genes, chromosomes, genomes, transcriptomes and proteomes. Will fulfill departmental Capstone requirement. Prereq: 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL641
Introduction to Proteomics
Discussion on the structure, function and the evolution of proteins. Topics include enzyme catalysis, sensory receptors, molecular motors, cytoskeleton, extracellular matrices, and immune recognition. Will fulfill departmental Capstone requirement. Prereq: 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL642
Advanced Cell Biology
The relationship between structure and function of cellular components, both intracellularly and in interactions with other cells. Topics include organization of cells, methods of study, membrane transport, cell-to-cell signaling, cell motility and the extracellular matrix. Will fulfill departmental Capstone requirement. Prereq: 15BIOL301, 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL647
Vertebrate Zoology

15BIOL650
Behavioral Ecology
Study of the adaptive value of animal behavior; foraging; territoriality; communication; mating systems; sexual selection; social behavior. Prereq: 15BIOL302, 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL651
Neuroethology
Explores the neural basis of animal behavior. The format includes short lectures that will provide background, and in depth discussions of primarily literature focusing on vertebrate as well as invertebrate systems. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL652
Behavioral Genetics
This class explores genetic approaches to the study of behavior. Prereq: 15BIOL302. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
15BIOL690 Plant Ecology  
A fundamental discussion of the biology of the cancerous state, including the underlying mechanisms of induction, as well as the physiology of neoplasms, at both the organ and molecular levels. Prereq: 15BIOL301, 15BIOL302, 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL660 Arachnology  
Lecture and laboratory course dealing with the classification, anatomy, physiology, behavior, and ecology of arachnids. Some field trips. Prereq: 15BIOL520. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL666 Ecotoxicology  
The impacts of pollution and other stresses on the structure and function of natural ecosystems. Will fulfill departmental Capstone requirement. Prereq: 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL668 Flowering Plant Classification  
An introduction to the diversity of the families of flowering plants, with an emphasis on the acquisition of plant identification skills. Two Sat. or Sun. field trips Equivalent to lab course for undergrad. majors. Prereq: 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL669 Tropical Ecology  
A survey of the distinctive biological characteristics of tropical rain forests. The evolutionary forces thought to be responsible for creating and maintaining these extremely diverse communities will be explored. The impact of anthropogenic forces on these biomes, possible consequences for future generations, and improved management strategies designed to curtail their demise will also be examined. Prereq: 15BIOL302, 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL670 Plant Physiology  
Lecture and lab work on transport, nutrition, biochemistry, and development in plants. Will fulfill departmental requirement. Prereq: 15BIOL301. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL677 Population Genetics  
An introduction to the principle and practice of population genetics with emphasis on evolutionary processing and current methods of analysis. Prereq: 15BIOL302, 15BIOL767. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL679 Comparative Endocrinology  
Study of hormones and hormonal mechanisms affecting life processes. Prereq: 15BIOL571. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL683 Medical Parasitology  
Major protozoan, fungal, and helminth parasites that cause disease in humans and animals. Prereq: 15BIOL301, 15BIOL302. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15BIOL686 Capstone Experience in Biology  
General Education Capstone Experience. Options include undergraduate research, a capstone course, field trips, senior thesis, biology honors thesis, or teaching experiences. (part of requirement) Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15BIOL690 Plant Ecology  
Biological environmental relationships in plant communities. Lecture with two (2) field trips. Prereq: 15BIOL302, 15BIOL303. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15BIOL897 Immune Defense and Disease  
Overview of how human defense mechanisms deal with infections, disease, allergies and cancer, as well as mechanisms involved in transplant rejection. Prereq: 15BIOL695. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15BIOL707 Molecular Biology Lab  
Basic laboratory techniques in molecular biology and molecular genetics including recombinant DNA manipulations. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15BIOL720 Readings in Invertebrate Zoology  
A companion course to 15BIOL520 for graduate students, covering topics in current literature. Coreq: 15BIOL520. Credit Level: G. Credit Hrs: 1.00

15BIOL765 Data Analysis Biol  
An introduction to statistics for examining biological data. Emphasizes understanding of quantitative methodologies and problem solving techniques. Credit Level: G. Credit Hrs: 4.00

15BIOL766 Readings in Ecological Toxicology  
Advanced readings and discussions in ecotoxicology. Credit Level: G. Credit Hrs: 1.00

H=University Honors course.
Biological Sciences
15BIOL767 Evolution
Study of the process of evolution, including synthesis of topics in: molecular evolution, population genetics, speciation and phylogenetics. Credit Level: G. Credit Hrs: 3.00

15BIOL773 Population/Community Ecology
Theoretical and empirical developments in modern ecology, emphasizing the interaction of populations in their environments that structure biological communities. Credit Level: G. Credit Hrs: 4.00

15BIOL775 Advanced Data Analysis
Advanced linear models including post-hoc testing, bootstrapping and resampling, multivariate methods. Emphasis is on analysis of existing data and biological problem solving. Prereq: 15BIOL765. Credit Level: G. Credit Hrs: 4.00

15BIOL783 Immunoparasitology
Introduces current topics on immunity to parasitic infections. Emphasis will be AIDS-associated and re-emerging opportunistic infections in developing and developed countries. Prereq: 15BIOL695. Credit Level: G. Credit Hrs: 3.00

15BIOL791 Molecular Biology I
Recombinant DNA technology and analysis of DNA sequences. Prokaryotic and eukaryotic systems will be discussed. Topics will be explored using texts and original literature. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15BIOL800 Graduate Topics in Biology
This is a literature-based course with discussions of current ideas and research in Biology. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-5.00

15BIOL810 Advanced Limnology
Expanded analysis of topics in freshwater ecology. Topics vary by year such as lake restoration, paleolimnology, big river or stream ecology, fish ecology, invading exotic species, or algal ecology. Prereq: 15BIOL691. Credit Level: G. Credit Hrs: 3.00

15BIOL827 Advanced Topics in Ecology
Study of current literature in ecology. Topics will be chosen according to the instructor's area of expertise and may include evolutionary ecology, theoretical ecology, quantitative methods and the design and interpretation of experiments. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15BIOL850 Readings in Behavioral Ecology
Guided discussion of topics in current literature of behavioral ecology. Coreq: 15BIOL650. Credit Level: G. Credit Hrs: 1.00-3.00

15BIOL856 Biology of Cancer
A fundamental discussion of the biology of the cancerous state, including the underlying mechanisms of induction, as well as the physiology of neoplasms at both the organ and molecular levels. A term paper involving a critical discussion on a topic related to cancer will be required. Prereq: 15BIOL695. Credit Level: G. Credit Hrs: 3.00

15BIOL860 Effective Tools for Teaching in the Biological Sciences
This course is designed to improve the teaching effectiveness of those students in the life sciences who plan to seek academic careers. Coreq: 15MLT842. Credit Level: G. Credit Hrs: 1.00

Biological Sciences
15BIOL876 Phylogenetic Systematics
A study of methods used to infer evolutionary history. Includes both theoretical background and hands-on analysis of diverse types of data. Credit Level: G. Credit Hrs: 3.00

15BIOL888 Molecular Evolution
Evolution at the molecular level, including topics such as: gene structure and mutation; evolutionary change in nucleotide sequences; rates and patterns of nucleotide substitution; evolution by gene duplication, exon shuffling, and transposition; formation of gene families and the acquisition of new function; and organization and evolution of genomes. Prereq: 15BIOL577. Credit Level: G. Credit Hrs: 3.00

15BIOL901 Biology Seminar
Discussion of current topics in biology by experts in a wide variety of biological subdisciplines. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

15BIOL902 Biology Seminar
Discussion of current topics in biology by experts in a wide variety of biological subdisciplines. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

15BIOL903 Beyond Cells and Molecules
This is a literature-based course with discussions of current ideas and research in Biology. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-12.00

15BIOL904 Graduate Topics in Biology
Individualized study on some aspect of biology not covered in formal courses. Independent readings, discussions and/or lab. work. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-5.00

15BIOL905 Graduate Topics in Biology
Individualized study on some aspect of biology not covered in formal courses. Independent readings, discussions and/or lab. work. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-5.00

15BIOL906 Graduate Topics in Biology
Individualized study on some aspect of biology not covered in formal courses. Independent readings, discussions and/or lab. work. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-5.00

15BIOL951 Graduate Research in Biology
Open to graduate students in Biology. Hours and credits arranged according to the student's graduate program. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-12.00

15BIOL952 Graduate Research in Biology
Open to graduate students in Biology. Hours and credits arranged according to the student's graduate program. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-12.00

15BIOL953 Graduate Research in Biology
Open to graduate students in Biology. Hours and credits arranged according to the student's graduate program. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-12.00

15BIOL954 Graduate Research in Biology
Open to graduate students in Biology. Hours and credits arranged according to the student's graduate program. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-12.00

H=University Honors course.
Biological Sciences

15BIOL955
Research Progress in Biology
Open to graduate students in Biology. Each student presents a seminar on his/her research. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

15BIOL985
Current Topics in Biology
Readings and discussions of current ideas and research in Biology. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

15BIOL986
Current Topics in Biology
Readings and discussions of current ideas and research in Biology. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

Business Law

15BLAW171
Business Law I: The Legal Process
State and federal court systems. Procedure reasoning followed in reaching decisions. Recent court decisions, current issues in the administration of justice. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Chemistry

15CHEM101
First-Year Chemistry
A first college course for science and engineering students. 3 lectures and 1 recitation per week. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM102
First-Year Chemistry
A first college course for science and engineering students. 3 lectures and 1 recitation per week. A second offering in a three-part course sequence. Prereq.: High school chemistry or General Chem. 104. Coreq.: Chem. 111, 12, 13 if additional work in chemistry is planned. Prereq; 15CHEM101. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM102H
First-Year Honors Chemistry
An honors course associated with first-year chemistry. Three lectures and one recitation each week. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM103
First-Year Chemistry
A first college course for science and engineering students. 3 lectures and 1 recitation per week. The third offering in a three-part course sequence. Prereq.: High school chemistry or General Chem. 104. Coreq.: Chem. 111, 12, 13 if additional work in chemistry is planned. Prereq; 15CHEM102. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM103H
First-Year Honors Chemistry
An honors course associated with first-year chemistry. Three lectures and one recitation each week. The second offering of a two-part course sequence. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 4.00

15CHEM104
General-Organic-Biochemistry I for Nursing and Allied Health
General chemistry concepts, with an emphasis on inorganic chemistry, providing a transition from high school education. Two lectures and one recitation each week. The first offering of a three-part course sequence. Coreq: 15CHEM114. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM105
General-Organic-Biochemistry II for Nursing and Allied Health
Organic chemistry topics relevant to health professional, providing the necessary background for topics in biochemistry. Two lectures and one recitation each week. The second offering of a three-part course sequence. Coreq: 15CHEM115. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM106
General-Organic-Biochemistry III for Nursing and Allied Health
Biochemistry topics relevant to health professionals. Two lectures and one recitation each week. The third offering of a three-part course sequence. Prereq: 15CHEM105. Coreq: 15CHEM116. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM107
Chemistry in Today's Society I
An overview of chemistry and its relationship to modern society. Based on science standards this course serves as an introduction to the chemical concepts needed to understand many of the numerous scientific problems confronting society today with an emphasis on relating the standards to K-9 education. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15CHEM108
Chemistry in Today's Society II
An overview of chemistry and its relationship to modern society. Based on science standards this course serves as an introduction to the chemical concepts needed to understand many of the numerous scientific problems confronting society today with an emphasis on relating the standards to K-9 education. Prereq: 15CHEM107. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15CHEM111
First-Year Chemistry Laboratory
Experimental work including qualitative analysis, supplementary to Chem. 101,2,3. One laboratory period per week. Prereq: 15CHEM101. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM112
First-Year Chemistry Laboratory
Experimental work including qualitative analysis, supplementary to Chem. 101,2,3. One Laboratory period per week. The second offering of a three- part course sequence. Coreq.: Chem. 101,2,3. Prereq: 15CHEM111. Coreq: 15CHEM102. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM112H
First-Year Honors Chemistry Laboratory
An honors laboratory course associated with first-year chemistry, with one laboratory perweek. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM113
First-Year Chemistry Laboratory

15CHEM113H
First-Year Honors Chemistry Laboratory
An honors laboratory course associated with first-year chemistry, with one laboratory per period. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM114
General-Organic-Biochemistry Laboratory I for Nursing and Allied Health
Experimental work supplementary to 15-CHEM-104, 105, & 106. One laboratory period each week. The first offering of a three-part course sequence. Coreq: 15CHEM104. BoK: NS. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.
Chemistry

15CHEM115
General-Organic-Biochemistry Laboratory II for Nursing and Allied Health
Experimental work supplementary to 15-CHEM-104, 105, & 106. One laboratory period each week. The second offering of a three-part course sequence. Prereq: 15CHEM114. Coreq: 15CHEM105. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM116
General-Organic-Biochemistry Laboratory III for Nursing and Allied Health
Experimental work supplementary to 15-CHEM-104, 105, & 106. One laboratory period each week. The third offering of a three-part course sequence. Prereq: 15CHEM115. Coreq: 15CHEM106. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM117
Chemistry in Today’s Society Lab I
A laboratory overview of chemistry and its relationship to modern society. Based on science standards this course serve as an introduction to the chemical concepts needed to understand many of the numerous scientific problems confronting society today with an emphasis on relating the emphasis on relating the standards to K-9 education. Coreq: 15CHEM107. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM118
Chemistry in Today’s Society Lab II
A laboratory overview of chemistry and its relationship to modern society. Based on science standards this course serve as an introduction to the chemical concepts needed to understand many of the numerous scientific problems confronting society today with an emphasis on relating the emphasis on relating the standards to K-9 education. Prereq: 15CHEM117. Coreq: 15CHEM108. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM122
Introduction to Forensics
A survey of forensic chemistry for students who are not science majors. The course is taught by presenting crime scenes and discussing the types of techniques needed for the investigation. Crime scenes will be taken from episodes of NOVA, from the US FDA, and from the local crime labs. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM131
General Chemistry I
A general overview of the science of chemistry for non-majors and students lacking a high school chemistry course. Two lectures and one recitation per week. The first offering in a three-part course sequence. Coreq: 15CHEM141. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM132
General Chemistry II
A general overview of the science of chemistry for non-majors and students lacking a high school chemistry course. Two lectures and one recitation per week. The second offering in a three-part course sequence. Prereq: 15CHEM131. Coreq: 15CHEM142. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM133
General Chemistry III
A general overview of the science of chemistry for non-majors and students lacking a high school chemistry course. Two lectures and one recitation per week. The third offering of a three-part course sequence. Prereq: 15CHEM132. Coreq: 15CHEM143. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM141
General Chemistry Laboratory I
Experimental work supplementary to 15-CHEM-131. One laboratory period per week. (Requirement of many programs.) The first offering of a three-part course sequence. Coreq: 15CHEM131. BoK: NS. Credit Level: U. Credit Hrs: 1.00

Chemistry

15CHEM142
General Chemistry Laboratory II
Experimental work supplementary to 15-CHEM-132. One laboratory period per week. (Requirements of many programs.) The second offering of a three-part course sequence. Prereq: 15CHEM141. Coreq: 15CHEM132. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM143
General Chemistry Laboratory III
Experimental work supplementary to 15-CHEM-133. One laboratory period per week. (Requirements of many programs.) The third offering of a three-part course sequence. Prereq: 15CHEM142. Coreq: 15CHEM133. BoK: NS. Credit Level: U. Credit Hrs: 1.00

15CHEM201
Organic Chemistry Lecture and Recitation
The fundamentals of bonding, structure, and stereochemistry of organic compounds; reaction mechanisms and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM202
Organic Chemistry Lecture and Recitation
The fundamentals of bonding, structure, and stereochemistry of organic compounds; reaction mechanisms and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. The second offering of a three-part course sequence. Prereq: 15CHEM201. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM203
Organic Chemistry Lecture
Organic Chemistry Lecture and Recitation. 4 ug.cr. The fundamentals of bonding, structure and stereochemistry of organic compounds; reaction mechanisms and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. This is the third offering Prereq: 15CHEM202. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM203H
Honors Organic Chemistry Lecture and Recitation
Honors version of the third quarter of Organic Chemistry lecture and recitation. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM204
Bio-organic Chemistry
For non-majors in chemistry. The structure and function of organic compounds in living systems stressed. BoK: NS. Credit Level: U. Credit Hrs: 3.00-4.00

15CHEM205
Bio-organic Chemistry
For non-majors in chemistry. The chemistry of proteins, nucleic acids, polysaccharides and lipids is stressed. Coreq: 15CHEM215. BoK: NS. Credit Level: U. Credit Hrs: 3.00-4.00

15CHEM206
Bio-organic Chemistry
For non-majors in chemistry. Energy production and utilization in biochemical systems. Prereq: 15CHEM205. Coreq: 15CHEM216. BoK: NS. Credit Level: U. Credit Hrs: 3.00-4.00

15CHEM211
Organic Chemistry Laboratory
An introduction to microscopic laboratory techniques of organic chemistry, including isolation, purification, chromatography, extraction and distillation of organic compounds. BoK: NA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.
15CHEM212
Organic Chemistry Laboratory and Recitation
Application of the techniques taught in Chem. 211 to the synthesis and study of a variety of organic compounds. Prereq: 15CHEM211. Coreq: 15CHEM202. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM212H
Honors Organic Chemistry Laboratory
Honors laboratory course that uses current faculty research projects to teach organic chemistry laboratory techniques. Each student has his/her own project. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM213
Organic Chemistry Laboratory
Application of the techniques taught in Chem. 211 to the synthesis and study of a variety of organic compounds. Prereq: 15CHEM212, 15CHEM202. Coreq: 15CHEM203. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM213H
Honors Organic Chemistry Laboratory
Multi-step synthesis, characterization of products and by-products from chemical reactions using spectroscopy, reaction kinetics and modern laboratory techniques such as working under an inert atmosphere. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM214
Bio-organic Laboratory
Laboratory work to accompany Chem. 204. Prereq: 15CHEM204. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM215
Bio-organic Laboratory
Laboratory work to accompany Chem. 205. Prereq: 15CHEM214. Coreq: 15CHEM205. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM216
Bio-organic Laboratory

15CHEM278
Introduction to Nanoscience and Technology
A survey of nanoscience and nanotechnology at an introductory level for engineering and science students in their 2nd or 3rd year of study: Nanoparticles, synthesis and applications, nanoelectronics, nanophotonics, nanobioscience, and societal and ethical implications. Prereq: 15MATH252. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM279
Experimental Nanoscale Science and Technology
A laboratory experiment for engineering and science students, covering the synthesis and characterization of nanostructures and the simple devices that can be made from them: carbon nanotube synthesis, nanotube sensor fabrication and characterization, quantum dot characterization and gold nanoparticle fabrication and characterization. Prereq: 15CHEM278. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM280
Sophomore Seminar Series for Majors
Seminar series on careers in chemistry (with outside speakers), CV/resume preparation, undergraduate research, graduate school, research ethics, library use, and hot topics in chemistry. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM322H
Chemical Aspects of Forensic Science
This course is designed for honors students interested in forensic science, regardless of their majors. They will concentrate on the chemistry involved in forensic investigations. The chemistry will include analyzing auto glass, auto paint, links used in forgery, blood types, drugs, poisons, and DNA. Students will perform many tests themselves. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM331
Chemical Analysis for Engineering Applications
Methods of chemical analysis, as applied in industrial processes. Prereq: 20CHE362. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM332
Chemical Analysis Laboratory -- Engineering Applications
Laboratory studies to illustrate chemical analysis, principles and operations. Prereq: 15CHEM331. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM333
Physical Chemistry for Engineering Sciences
Selected topics in physical chemistry, including statistical thermodynamics, equilibrium and dynamic electrochemistry, surface chemistry and heterogeneous catalysis. Prereq: 20CHE362. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM341
Chemical Equilibrium and Separations
Basic principles of acid-base, solubility, complexation and separation equilibria will be discussed. Prereq: 15CHEM381. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM342
Electrochemistry and Spectroscopy
Electrochemical and spectroscopic methods in analytical chemistry. Prereq: 15CHEM341, 15CHEM382. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM350
Organic Chemistry for Engineers I
The fundamentals of bonding, structure, and stereochemistry of organic compounds: reaction mechanism and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM351
Organic Chemistry for Engineers II
The second part of a two-course sequence. The fundamentals of bonding, structure, and stereochemistry of organic compounds: reaction mechanisms and synthetic utility of reactions involving unsaturated compounds, aromatic compounds, alkyl halides and alcohols, carbonyl compounds, and nitrogen-containing compounds; reaction intermediates. Prereq: 15CHEM350. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM352
Organic Chemistry Laboratory for Engineers I
An introduction to microscale laboratory techniques or organic chemistry, including isolation, purification, chromatography, extraction and distillation of organic compounds. Prereq: 15CHEM113. Coreq: 15CHEM350. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM353
Organic Chemistry Laboratory for Engineers II
The second part of a two-part laboratory sequence. An introduction to microscale laboratory techniques of organic chemistry, including isolation, purification, chromatography, extraction and distillation of organic compounds. Prereq: 15CHEM350, 15CHEM352. Coreq: 15CHEM351. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM361
Physical-Analytical Measurements I
Treatment of experimental data involving the use of computer techniques; elementary physiochemical laboratory instruments and techniques. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM362
Physical-Analytical Measurements II
A course involving titration, electrochemical, and spectroscopic experiments. Prereq: 15CHEM381, 15CHEM342. BoK: NA. Credit
Chemistry

15CHEM362
Physical-Analytical Measurements II
Level: U. Credit Hrs: 2.00

15CHEM381
Physical Chemistry I
Chemical Kinetics. Prereq: 15CHEM203, 15PHYS103, 15PHYS203, 15MATH227, 15MATH253. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15CHEM382
Physical Chemistry II
Equilibrium and nonequilibrium thermodynamics; solutions. Prereq: 15CHEM381. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15CHEM383
Physical Chemistry III
Quantum Chemistry. Prereq: 15CHEM381. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15CHEM384
Survey of Physical Chemistry
Survey of topics in physical chemistry, including thermodynamics and properties of solutions, for students working toward the BA degree in Chemistry. Not to be taken by students working toward a BS in Chemistry. Prereq: 15CHEM381. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15CHEM421
Introduction to Biochemistry
An introductory course for chemistry undergraduates describing the physical properties of biological molecules. The function & role of these and functions of biological molecules; the function and role of these molecules during important cellular processes and pathways such as metabolism, oxidative phosphorylation and others. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15CHEM441
Inorganic Chemistry I
Atomic and molecular structure, acid-base theories, oxidation-reduction phenomena, coordination compounds, symmetry, organometallic chemistry. Prereq: 15CHEM381. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15CHEM442
Inorganic Chemistry II
Atomic and molecular structure, acid-base theories, oxidation-reduction phenomena, coordination compounds, symmetry, organometallic chemistry. The second offering of a two-part course sequence. Prereq: 15CHEM441. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM444
Inorganic Synthesis
Preparation and characterization of inorganic and organometallic compounds. Prereq: 15CHEM441, 15CHEM442. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15CHEM480
Senior Capstone Series for Majors
Seminar series for senior chemistry majors, including final capstone presentations. Prereq: 15CHEM499, 15CHEM562, 15CHEM612. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15CHEM498
ACADEMIC INTERNSHIP IN CHEMISTRY
Supervised professional experience in an industrial or government laboratory on a project with significant chemistry content. Repeatable two times for a maximum total of nine credits. Permission of instructor and Director of Undergraduate Studies is required. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15CHEM499
Undergraduate Research in Chemistry
Under direction of Chemistry faculty. Areas include analytical, biochemistry, inorganic, organic, physical (designated by section number, i.e., Analytical 001; Biochemistry 002; etc., for internal bookkeeping purposes). No class standing requirements. Hrs. to be arranged. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00 -6.00

15CHEM521
History of Chemistry
A historical survey of the development of modern chemistry from the 18th century to the present. Prereq: 15CHEM383. BoK: HP, NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM544
Organic Structural Analysis
An introduction to spectroscopic methods, applied to organic compounds, with emphasis on nmr, ir, uv, and mass spectroscopy. Prereq: 15CHEM203. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00

15CHEM545
Intermediate Organic Chemistry
Advanced topics in the theory, reaction mechanism and stereochemistry of organic compounds. Prereq: 15CHEM203. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM546
Intermediate Organic Chemistry II
Modern synthetic organic chemistry, with emphasis on designing rational synthetic strategies for complex molecules. Prereq: 15CHEM203. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15CHEM562
Instrumental Measurements II
The application of modern chemical instrumentation to analysis and measurement. The second offering in a two-part course sequence. Prereq: 15CHEM562. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM590
Biophysical Chemistry
A survey and introductory course covering physical methods typically used in the study of biochemical molecules. Prereq: 15CHEM601, 15CHEM382. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15CHEM601
Biochemistry
Structure and function relationships of biologically important macromolecules and supramolecular assemblies, intermediary metabolism including pathways, regulation and methods of study, and molecular biology are topics that will be covered. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM602
Biochemistry

15CHEM603
Biochemistry

15CHEM604
Biochemical Methods
Contemporary techniques for studying the structures and interactions of biochemical macromolecules. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
Chemistry

15CHEM611  
Biochemistry Laboratory  
Laboratory techniques for modern biochemical research. BoK: NA.  
Credit Level: U, G. Credit Hrs: 3.00

15CHEM612  
Biochemistry Laboratory  
The second offering in a two-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM621  
Polymer Configurations and Rubberlike Elasticity  
Statistical properties of chain molecules, including chain distribution functions; experimental and theoretical studies of rubberlike elasticity; stain-induced crystallization and ultimate properties of polymer networks. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM622  
Preparation and Reactions of Polymers  
Condensation polymerizations; chain polymerizations (radical and ionic); emulsion, suspension, and interfacial polymerizations; chemical reactions of polymers. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM623  
Polymer Properties Laboratory II  
Modern laboratory techniques used in the characterization of polymeric materials. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM624  
Solution Properties of High Molecular Weight Polymers  
Thermodynamic and hydrodynamic properties of polymer molecules in solution. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15CHEM651  
Biochemistry  
Structure and function relationships of biologically important macromolecules and supramolecular assemblies, intermediary metabolism including pathways, regulation and methods of study, and molecular biology are topics that will be covered. Prereq: 15CHEM203. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM652  
Biochemistry  
Structure and function relationship of biologically important macromolecules and supramolecular assemblies, intermediary metabolism including pathways, regulation and methods of study, and molecular biology are topics that will be covered. The second offering in a three-part course sequence. Prereq: 15CHEM651. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM653  
Biochemistry  
Structure and function relationships of biologically important macromolecules and supramolecular assemblies, intermediary metabolism including pathways, regulation and methods of study, and molecular biology are topics that will be included. The third offering of a three-part course sequence. Prereq: 15CHEM652. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15CHEM721  
Advanced Physical Chemistry I  
Quantum chemistry. Credit Level: G. Credit Hrs: 3.00

15CHEM722  
Advanced Physical Chemistry II  
Thermodynamics and statistical mechanics. Credit Level: G. Credit Hrs: 3.00

15CHEM723  
Advanced Physical Chemistry III  
Chemical kinetics and reaction dynamics. Credit Level: G. Credit Hrs: 3.00

Chemistry

15CHEM724  
Molecular Spectroscopy and Group Theory  
3 gr. cr. Prereq: 15CHEM721. Credit Level: G. Credit Hrs: 3.00

15CHEM741  
Chemical Separations  
Discussion of analytical separations, especially solvent extractions, and gas and liquid chromatographic methods. Credit Level: G. Credit Hrs: 3.00

15CHEM742  
Analytical Spectroscopy  
Discussion of spectroscopy as related to analytical chemistry covering such topics as ultraviolet-visible spectroscopy, fluorimetry and phosphorimetry, plasma emission and atomic spectroscopy. Credit Level: G. Credit Hrs: 3.00

15CHEM743  
Electroanalytical Chemistry  
Basic principles of electroanalytical techniques; potentiometry, voltammetry, polarography, coulometry, spectroelectrochemistry. Credit Level: G. Credit Hrs: 3.00

15CHEM744  
Fundamentals of Modern Mass Spectrometry  
The basics of modern mass spectrometry. Topics include theory of ion formation & dissociation, sample introduction, ionization sources, mass analyzers, detection & data processing, quantitative mass spectrometry, hybrid instrument design including coupling to chromatographic systems, tandem mass spectrometry, and gas-phase ion-molecule chemistry. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15CHEM751  
Advanced Inorganic Chemistry I  
Review of atomic and molecular spectroscopy; periodic table, ionization potential, electron affinity, Lewis octets, resonance. Symmetry and group theory; definition of symmetry operations, groups, identify point groups for molecules. Matrix notation, representations, reduction to irreducible reps. Review of molecular orbital theory and hybridization, using group theory. Review of VSEPR "theory." Application of group theory to IR, Raman and NMR spectra for various Credit Level: G. Credit Hrs: 3.00

15CHEM752  
Advanced Inorganic Chemistry II  
Continuation of classical transition metal chemistry. Crystal field theory, complex structures, splitting diagrams, magnetism, spectroscopy, Orgel diagrams, Tanabe-Sugano diagrams, spin-orbit coupling, Reactions, kinetics and mechanisms. Transition state stabilization. Credit Level: G. Credit Hrs: 3.00

15CHEM753  
Selected Topics in Inorganic Chemistry  
Special topics in inorganic chemistry. Some topics which may be presented at the choice of the instructor: structural methods, radiochemistry, bioinorganic, representative elements, applied industrial inorganic, metal-based drugs and imaging agents, advanced organometallic. Credit Level: G. Credit Hrs: 3.00

15CHEM754  
Physical Methods in Inorganic Chemistry  
Covers the theory and practice of various spectroscopic, magnetic and other methods employed for the investigation of inorganic compounds and reactions. Prereq: 15CHEM751. Credit Level: G. Credit Hrs: 3.00

15CHEM761  
Organic Spectroscopy  
Organic spectroscopy including HMR, IR, and Mass Spectrometry. Credit Level: G. Credit Hrs: 3.00

15CHEM762  
Advanced Synthetic Organic Chemistry  
Modern synthetic organic chemistry, with emphasis on designing rational synthetic strategies for complex molecules. Credit Level: G. Credit Hrs: 3.00
Chemistry

15CHEM762
Advanced Synthetic Organic Chemistry
(Day/Eve.) Modern synthetic organic chemistry, with emphasis on designing rational synthetic strategies for complex molecules. Credit Level: G. Credit Hrs: 3.00

15CHEM763
Physical Organic Chemistry
Fundamental principles and theories of physical organic chemistry. Credit Level: G. Credit Hrs: 3.00

15CHEM764
Advanced Organic Chemistry: Special Topics
First year graduate course dealing with a variety of subjects of central importance in Organic Chemistry Prereq: 15CHEM761. Credit Level: G. Credit Hrs: 3.00

15CHEM771
Introduction to Research
Only for students in the PhD program for a maximum of 7 credits. Credit Level: G. Credit Hrs: 1.00-7.00

15CHEM800
Scientific Writing
Emphasizes the need for written scientific language that is clear, direct, accurate, simple, concise and vigorous. Students will learn to recognize poor writing, and how to correct and improve it. Study samples will come from the literature, and the students' own efforts in assorted formats (journal articles, abstracts, overheads/Powerpoint slides, posters). Credit Level: G. Credit Hrs: 1.00-3.00

15CHEM801
Advanced Computational Chemistry I
Discusses the chemistry, biophysics, and statistics behind computational methods used to predict the structure and function of proteins and RNA molecules from sequence information. Applications of bioinformatic packages to biophysics problems and development of analysis tools will be emphasized. Credit Level: G. Credit Hrs: 3.00

15CHEM802
Advanced Computational Chemistry II
Focuses on the application of computer simulations to the study of biological systems. Discusses concepts in classical mechanics, thermodynamics and statistical mechanics and their application to Monte Carlo and molecular dynamics methods. The use of molecular modeling programs will be illustrated using specific biomolecular systems. Credit Level: G. Credit Hrs: 3.00

15CHEM803
Special Topics in Computational Chemistry
Introduction to the uses of computational theory in chemistry. Will cover the fundamentals of computational chemistry and focus on correlating chemical calculations with experimental results. Credit Level: G. Credit Hrs: 3.00

15CHEM831
Chemical Sensors I
Fundamentals of chemical and biochemical sensing including electrochemical and optical sensing, mechanisms of transduction and sensing devices. Prereq: 15CHEM743. Credit Level: G. Credit Hrs: 3.00

15CHEM832
Chemical Sensors II
Fundamentals of chemical and biochemical sensing including electrochemical and optical sensing, mechanisms of transduction and sensing devices. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15CHEM833
Chemical Sensors III
Current topics in the development of materials for chemical sensors and devices. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

Chemistry

15CHEM859
Structural Biochemistry
Theory and use of NMR, X-ray crystallography and Mass Spectrometry for the structural characterization of biomolecules. Credit Level: G. Credit Hrs: 1.00-3.00

15CHEM864
Bioorganic Chemistry
Latest methods in bioorganic chemistry are presented and discussed. Credit Level: G. Credit Hrs: 3.00

15CHEM865
The Organic Chemistry of Drug Discovery and Development
Emphasizes the application of organic chemistry principles to the design and development of drugs. The discovery and optimization of lead compounds and their progression to clinical candidates is discussed using basic principles and case histories. Prereq: 15CHEM203. Credit Level: G. Credit Hrs: 3.00

15CHEM872
Special Topics: Inorganic Chemistry
Advanced treatment of special topics. Content varies yearly at the discretion of the instructor. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15CHEM875
Special Topics In Inorganic Chemistry
Current problems in inorganic chemistry. Content varies each term. May be taken multiple times for credit. Credit Level: G. Credit Hrs: 3.00

15CHEM880
Surface Characterization
Analysis of techniques currently available for the detailed characterization of well-defined surfaces. Credit Level: G. Credit Hrs: 4.00

15CHEM884
Electronics and Instrumentation for Chemists
Introduction to analog and digital circuitry and laboratory automation. Credit Level: G. Credit Hrs: 4.00

15CHEM888
Asymmetric Synthesis
Organic chemistry course focusing on asymmetric synthesis. New methodology presentations of current literature and brief description of kinetics and analytical techniques. Credit Level: G. Credit Hrs: 3.00

15CHEM890
Advanced Electroanalytical Chemistry
Advanced topics in electroanalytical techniques. Mathematical simulations, recent advances and other specialized subjects. Prereq: 15CHEM743. Credit Level: G. Credit Hrs: 3.00

15CHEM895
Photochemistry
An overview of excited chemistry: Methods for the generation of excited states, excited state dynamics (energy transfer, quenching, intersystem crossing), excited state transformations and their synthetic applications. Credit Level: G. Credit Hrs: 1.00-3.00

15CHEM971
Research
Credit according to amount of work elected. Credit Level: G. Credit Hrs: 1.00-18.00

15CHEM981
Special Study Topics
Modern developments in physical organic chemistry. Credit Level: G. Credit Hrs: 1.00-15.00

15CHEM983
Life After Graduate School
Discusses the types of careers available to PhD chemists, the skills needed to be successful on the job, and the skills needed to find a job after graduate school. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-3.00

H=University Honors course.
Chemistry
15CHEM983
Life After Graduate School
1.00

15CHEM995
Seminar
Required of all full-time graduate students in chemistry. Credit Level: G. Credit Hrs: 2.00

15CHEM999
Laboratory Teaching Practice
Theory and practice of chemistry laboratory instruction. Required of all first-year graduate assistants involved in teaching. Credit Level: G. Credit Hrs: 1.00

Chinese Languages and Cultures
15CHIN101
Basic Chinese I
1st quarter in the 3-quarter sequence that fulfills the A&S language requirement. Intro. to Chinese language and culture. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15CHIN102
Basic Chinese II
Introduction to Chinese Language and culture. Second quarter in the three-quarter sequence that fulfills the A&S language requirement. Prereq: 15CHIN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15CHIN103
Basic Chinese III
Introduction to Chinese language and culture. Third quarter in the three-quarter sequence that fulfills the A&S language requirement. Prereq: 15CHIN102. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15CHIN111
Extended Basic Chinese 1
Basic Chinese language and culture. First qtr. in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15CHIN112
Extended Basic Chinese 2
Basic Chinese language and culture. Second quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA104. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15CHIN113
Extended Basic Chinese 3
Basic Chinese language and culture. Third quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA105. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15CHIN114
Extended Basic Chinese 4
Basic Chinese language and culture. Fourth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA106. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15CHIN115
Extended Basic Chinese 5
Basic Chinese language and culture. Fifth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15CHIN116
Extended Basic Chinese 6
Basic Chinese language and culture. Sixth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15CHIN201
Second Year Chinese I

Chinese Languages and Cultures
15CHIN201
Second Year Chinese I
BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15CHIN202
Second Year Chinese II
Intermediate Chinese language and culture. Second quarter in an intensive three-quarter second year sequence. Prereq: 15CHIN201. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15CHIN203
Second Year Chinese III
Intermediate Chinese language and culture. Third quarter in the intensive three-quarter second year sequence. Prereq: 15CHIN202. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

Classical Civilization
15CLAS101
Introduction to Ancient History
The political, social, economic, and cultural history of the ancient Near East and early Greece from about 3000 BCE to the middle of the fifth century BCE. Introduces students to the problems and techniques of historical analysis. The first in a three-part series. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS102
Introduction to Ancient History
Classical Greece and the Hellenistic World to the coming of the Romans from the mid-fourth century BCE to the mid-second century BCE. The course will explore the emergence of new political forms in the Greek world and its expansion into the Near East. The second in a three-part series. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS103
Introduction to Ancient History
Rome to the age of Constantine. This course will focus on the transformation of Rome from a republic to an empire as well as the problems that this transformation entailed. The third in a three-part course sequence. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS105
History of Ancient Egypt
This introductory survey covers the history of ancient Egypt from the predynastic period through the Old, Middle and New Kingdoms, and ends by examining the roles of Egypt in the empires of Alexander the Great (Hellenistic Greece) and of Rome. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS110
Introduction to Classical Civilization
Early Greek civilization, interpreted through its history, literature, and archaeology. The first in a three-part course sequence. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS110H
Introduction to Classical Civilization
Honors section. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 4.00

15CLAS111
Introduction to Classical Civilization II
Classical Greek civilization, interpreted through its history, literature and archaeology. The second in a three-part course sequence. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS111H
Introduction to Classical Civilization
Honors section. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
Classical Civilization

15CLAS112
Introduction to Classical Civilization III
Roman civilization, interpreted through its history, literature and archaeology. The third in a three-part course sequence. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS112H
Introduction to Classical Civilization Honors section. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 4.00

15CLAS151
Greek Civilization
Ancient Greek civilization from the Archaic period up to the Peloponnesian War in the late 5th century BC. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS152
Greek Civilization
Continuation of 15CLAS151. Ancient Greek civilization from the Peloponnesian War in the late 5th century BC through the Hellenistic and Roman periods to the Byzantine era. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS153
Roman Civilization
Ancient Rome civilization from the founding of Rome through the late Republic in the 1st century BC. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS154
Roman Civilization
Continuation of 15CLAS153. Ancient Roman civilization from the early Roman empire through the reign of Justinian. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS170
Etiquette Ancient and Modern
Perspectives from Classical Antiquity and the modern world on etiquette. Similarities and differences between Greek and Roman and modern views help question the principles upon which etiquette is built. BoK: SE., HP. Credit Level: U. Credit Hrs: 3.00

15CLAS188
Mortals, Myth and Magic in the Ancient World
Magical practices and beliefs of four different cultures - Egypt, Greece, Rome, and the Celts - are investigated by studying both archaeological remains and textual evidence such as Pyramid Texts, magical papyri, curse tablets, and tales of magic and sorcery. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS201
Art and Archaeology of Ancient Mesopotamia and Egypt
Introduction to the material remains of these ancient cultures. Monumental cultures of ancient Sumeria and Egypt, from the earliest prehistoric periods through the end of the Old Kingdom. Architecture, sculpture and paintings are analyzed, as are smaller works such as pottery, jewelry and utensils, with a view toward understanding what these material remains reveal about the people who produced them. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15CLAS202
Art and Archaeology of Ancient Greece
Introduction to the material culture of ancient Greece and Crete, from the Bronze Age through the Classical and Hellenistic periods. Architecture, sculpture and paintings are analyzed, as are smaller works of pottery, jewelry and utensils, with a view toward understanding what these materials remains reveal about the people who produced them. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15CLAS203
Art and Archaeology of Ancient Rome
Introduction to the material cultures of Rome and her colonies, from the early Etruscan settlements in Italy through the far reaches of the Roman empire in Britain, Asia and Africa. Architecture, sculpture and paintings are analyzed, as are smaller works of pottery, jewelry and utensils, with a view toward understanding what these material remains reveal about the people who produced them. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15CLAS221
The Art and Archaeology of the Ancient World
A survey of the culture of ancient Egypt through a study of its art and architecture. Students will learn about monuments such as the great pyramids and how they reflect the beliefs of the ancient Egyptian people. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS222
The Art and Archaeology of the Ancient World
A survey of the culture of ancient Greece circa 2000BC-31BC through the study of history, art, and architecture. Explores religious, civic, and private life of the culture that invented democracy. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS223
The Art and Archaeology of the Ancient World
A survey of the culture of ancient Rome circa 800BC-AD400 through a study of its history, art, and architecture. Explore the development of the Roman empire and activities of daily life. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS238
Greek and Latin Elements in Medical Terminology
Basic vocabulary of some 1000 words, together with materials for formation of compounds, enabling students to build working vocabulary of several thousand words. Designed for those intending to specialize in medicine, nursing, dentistry, microbiology and medical technology. (Does not count toward major in Classical Civilization.) BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS333
Egyptian and Mesopotamian Mythology
Ancient myth and religion are presented through readings in ancient texts, depictions in ancient art, and the study of religious sites and temples. Where applicable, modern theories about the significance of myth are analyzed. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS335
Celtic and Norse Mythology
Ancient myth and religion are presented through readings in ancient texts, depictions in ancient art, and the study of religious sites and temples. Where applicable, modern theories about the significance of myth are analyzed. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS345
Mythology
Classical Greek myths as products of Greek culture. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS346
Greek and Roman Myth and Religion
A general account of Greek and Roman mythology and religion. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS350
Palaces of the Bronze Age Aegean
Examines the emergence, development and decline of complex societies on Crete and mainland Greece (2000 - 1200 BC) through material and textual evidence. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15CLAS355
Prostitutes, Slaves and Scoundrels in Ancient Athens
Social attitudes, interests and obsessions of the ancient Athenians come to life in often convoluted legal disputes. The more intriguing and racy courtroom speeches that survive from ancient Athens reveal laws,
Tour of Rome: The Art and Archaeology of the Ancient City
We will explore the art and archaeology of Rome with a focus on its monuments, buildings, and neighborhoods. Our investigation of these will shed light on the various historic, social, and cultural developments that shaped the city with an aim to recreate ancient daily life in Rome. BoK: HU, Credit Level: U, Credit Hrs: 3.00

Survey of the Topography of Rome From Its Origins Through the Baroque
A survey of the history of Rome from its foundation until the flowering of the baroque as seen through its monuments, buildings, and public art. Rome, the Eternal City, through 2500 years of continuous inhabitation. BoK: FA, HP, Credit Level: U, Credit Hrs: 3.00

The Athenian Acropolis
An exploration of the most important religious site of ancient Athens from the Neolithic period to the modern period. Will focus on Greek religious practice, art and architecture, and the Acropolis's historical significance in antiquity and today. BoK: HU, Credit Level: U, Credit Hrs: 3.00

Tales of Heroes: Homeric Epic
Detailed study of Homeric epic poetry in translation. Readings comprise Epic of Gilgamesh (as background); Iliad: Odyssey; some secondary literature. BoK: HU, Credit Level: U, Credit Hrs: 3.00

Seven Wonders of the Ancient World
A survey of the most important sites and monuments of ancient Greece, Mesopotamia, Israel, Turkey and Egypt. Critical thinking and oral communication skills will be applied in assessing the archaeological and textual evidence for the Seven Wonders of the Ancient World. BoK: HU, Credit Level: U, Credit Hrs: 3.00

Opera and Classical Antiquity
Readings of classical texts serve as a starting point for the analysis of opera by diverse composers and from different periods. The topics include: 1) Greek and Roman epic (e.g. Virgil's "Aeneid" - Opera: "Les Troyens", "Ascanio in Alba", etc.) 2) Greek tragedy; 3) Roman history, BoK: HU, Credit Level: U, Credit Hrs: 3.00

Pompeii
The eruption of Mt. Vesuvius in 79AD completely buried the Roman city of Pompeii. We will rediscover Pompeii's temples, theaters, baths, streets, and her many houses, humble and haughty, to understand the operation of this ancient city. BoK: HU, Credit Level: U, Credit Hrs: 3.00

Life in the Roman City
We will read from historians, orators, satirists, and poets to explore reactions of ancient Romans to city life. Topics include: the development of Rome and Roman colonies; urban planning and policing; public services and street life; entertainment and spectacle; and death and burial. BoK: HP, Credit Level: U, Credit Hrs: 3.00

Classical Civilization

15CLAS355
Prostitutes, Slaves and Scoundrels in Ancient Athens
ethics, lifestyles, pretensions and politics of the ancient Athenians. BoK: HP, Credit Level: U, Credit Hrs: 3.00

15CLAS356
Gender and Sexuality in Ancient Greece
Examines the roles of women and men in a society where these roles were very different. Topics include family, work, and daily lives of men and women, as well as sexuality and homosexuality; marriage and adultery; misogynist and other portrayals of women. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS357
The Athenian Acropolis
An exploration of the most important religious site of ancient Athens from the Neolithic period to the modern period. Will focus on Greek religious practice, art and architecture, and the Acropolis's historical significance in antiquity and today. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS360
Tales of Heroes: Homeric Epic
Detailed study of Homeric epic poetry in translation. Readings comprise Epic of Gilgamesh (as background); Iliad: Odyssey; some secondary literature. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS365
Seven Wonders of the Ancient World
A survey of the most important sites and monuments of ancient Greece, Mesopotamia, Israel, Turkey and Egypt. Critical thinking and oral communication skills will be applied in assessing the archaeological and textual evidence for the Seven Wonders of the Ancient World. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS366
Opera and Classical Antiquity
Readings of classical texts serve as a starting point for the analysis of opera by diverse composers and from different periods. The topics include: 1) Greek and Roman epic (e.g. Virgil's "Aeneid" - Opera: "Les Troyens", "Ascanio in Alba", etc.) 2) Greek tragedy; 3) Roman history, BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS368
Pompeii
The eruption of Mt. Vesuvius in 79AD completely buried the Roman city of Pompeii. We will rediscover Pompeii's temples, theaters, baths, streets, and her many houses, humble and haughty, to understand the operation of this ancient city. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS370
Life in the Roman City
We will read from historians, orators, satirists, and poets to explore reactions of ancient Romans to city life. Topics include: the development of Rome and Roman colonies; urban planning and policing; public services and street life; entertainment and spectacle; and death and burial. BoK: HP, Credit Level: U, Credit Hrs: 3.00

15CLAS373
Tour of Rome: The Art and Archaeology of the Ancient City
We will explore the art and archaeology of Rome with a focus on its monuments, buildings, and neighborhoods. Our investigation of these will shed light on the various historic, social, and cultural developments that shaped the city with an aim to recreate ancient daily life in Rome. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS375
Survey of the Topography of Rome From Its Origins Through the Baroque
A survey of the history of Rome from its foundation until the flowering of the baroque as seen through its monuments, buildings, and public art. Rome, the Eternal City, through 2500 years of continuous inhabitation. BoK: FA, HP, Credit Level: U, Credit Hrs: 3.00

15CLAS381
Women and Men, Sex and Gender in Antiquity
An overview of the textual and material evidence pertaining to women's lives in four ancient cultures. Students synthesize and evaluate this information, weighing the limitations of different types of evidence and considering any possible gender biases of previous scholars. Perm of Instructor. BoK: HU, SE. Credit Level: U, Credit Hrs: 3.00

15CLAS400
Roman Archaeology I
In-depth examination of the first Romans and the Roman Republic (circa 800-100BC) and its scholarship. Meets with CLAS700. Prereq: 15CLAS223. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS401
Roman Archaeology II
In-depth examination of the art and archaeology of the late Roman Republic to the early Roman Empire (circa 100BC-AD100) and its scholarship. Meets with CLAS701. Prereq: 15CLAS223. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS402
Roman Archaeology III
In-depth examination of the art and archaeology of the High and later Roman Empire (AD100-400) and its scholarship. Meets with CLAS702. Prereq: 15CLAS223. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS403
Advanced Greek Archaeology
In-depth examination of the art and archaeology of Iron Age and Archaic Greece (1000-500BC) and its scholarship. Meets with CLAS703. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS404
Advanced Greek Archaeology
In-depth examination of the art and archaeology of Classical Greece (500-323BC) and its scholarship. Meets with CLAS703. Prereq: 15CLAS222. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS405
Advanced Greek Archaeology
In-depth examination of the art and archaeology of the ancient Greek Hellenistic World (323-31BC) and its scholarship. Meets with CLAS705. Prereq: 15CLAS222. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS406
Aegean Prehistory
The art and archaeology of Prehistoric Greece. Perm of Instructor. BoK: HU, SS. Credit Level: U, Credit Hrs: 3.00

15CLAS407
Greek Archaeology IV
Survey of Greek material culture. This course follows 15CLAS405 in years when the Greek archaeology survey is taught as a 4-course sequence. Prereq: 15CLAS222. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS411
Archaeology of Israel
Focuses on the material remains of Israel, from prehistory to the Roman period. Prereq: 15ANTH201, 15CLAS221, 15CLAS222, 15CLAS223. BoK: HU, Credit Level: U, Credit Hrs: 3.00

15CLAS471
Special Topics
A special topic is chosen by student with approval of adviser as the subject of study in the capstone experience. BoK: NA. Credit Level: U, Credit Hrs: 1.00-15.00

15CLAS475
Introduction to Classical Studies
Survey of the various areas of classical studies and their methodologies. BoK: HU, Credit Level: U, Credit Hrs: 1.00
### Classical Civilization

15CLAS475  
**Introduction to Classical Studies**  
Survey of the various areas of classical studies and their methodologies. BoK: HU. Credit Level: U. Credit Hrs: 1.00

15CLAS481  
**History of Rome: Early Rome to the Middle Republic**  
Early Roman history from the orgins of Rome, the monarchy and the early Republic through the Middle Republic. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS482  
**History of Rome: Late Republic to Its Fall**  
History of the Roman Republic from the time of the Gracchi to that of Julius Caesar. Emphasis is placed on the causes of the fall of the Republic. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS483  
**History of Rome: Early Empire**  
Political, social and economic history of the Roman Empire from Augustus to the Antonines. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS484  
**Early Greece**  
The history of Greece in the Dark Age and the Archaic period. The emergence of the city-state, colonization, and the constitutional development of Sparta and Athens to the end of the sixth century B.C. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS485  
**Greece: Pericles**  
The Age of Pericles and the 4th century B.C. The social and political history of Greece in the 5th and 4th centuries B.C. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS486  
**Greece: Hellenistic**  
Alexander the Great and the Hellenistic World. The social and political history of the Greek world in the 4th to the 2nd centuries B.C. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS488  
**Greek and Roman Warfare**  
A study of Greek and Roman tactical methods and army structure. This course was formerly known as 15HIST442. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS490  
**Bread and Butter Course on Food Production and Consumption in the Ancient World**  
Survey of food production and consumption in the ancient world, with a special focus on the social organization of the agriculture (leases, estates) and the development of entitlements (taxes, doles) BoK: HP. Credit Level: U. Credit Hrs: 3.00

15CLAS499  
**Independent Study in Classics**  
Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

15CLAS571  
**The Minoans**  
Description not available. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

15CLAS572  
**The Minoans**  
Description not available. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

15CLAS573  
**The Mycenaeans**  
The first of a two-part course sequence. A graduate survey class dealing with the archaeology society, economy, history and art of the Greek mainland from the Paleolithic period to the end of the Bronze

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>15CLAS475</td>
<td>Introduction to Classical Studies</td>
<td>Survey of the various areas of classical studies</td>
<td>U</td>
<td>1.00</td>
</tr>
<tr>
<td>15CLAS481</td>
<td>History of Rome: Early Rome to the Middle Republic</td>
<td>Early Roman history from the orgins of Rome, the monarchy and the early Republic through the Middle Republic.</td>
<td>U, G</td>
<td>3.00</td>
</tr>
<tr>
<td>15CLAS482</td>
<td>History of Rome: Late Republic to Its Fall</td>
<td>History of the Roman Republic from the time of the Gracchi to that of Julius Caesar. Emphasis is placed on the causes of the fall of the Republic.</td>
<td>U, G</td>
<td>3.00</td>
</tr>
<tr>
<td>15CLAS483</td>
<td>History of Rome: Early Empire</td>
<td>Political, social and economic history of the Roman Empire from Augustus to the Antonines.</td>
<td>U</td>
<td>3.00</td>
</tr>
<tr>
<td>15CLAS484</td>
<td>Early Greece</td>
<td>The history of Greece in the Dark Age and the Archaic period. The emergence of the city-state, colonization, and the constitutional development of Sparta and Athens to the end of the sixth century B.C.</td>
<td>U, G</td>
<td>3.00</td>
</tr>
<tr>
<td>15CLAS485</td>
<td>Greece: Pericles</td>
<td>The Age of Pericles and the 4th century B.C. The social and political history of Greece in the 5th and 4th centuries B.C.</td>
<td>U, G</td>
<td>3.00</td>
</tr>
<tr>
<td>15CLAS486</td>
<td>Greece: Hellenistic</td>
<td>Alexander the Great and the Hellenistic World. The social and political history of the Greek world in the 4th to the 2nd centuries B.C.</td>
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<td>15CLAS488</td>
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<td>U, G</td>
<td>3.00</td>
</tr>
<tr>
<td>15CLAS490</td>
<td>Bread and Butter Course on Food Production and Consumption in the Ancient World</td>
<td>Survey of food production and consumption in the ancient world, with a special focus on the social organization of the agriculture (leases, estates) and the development of entitlements (taxes, doles)</td>
<td>U, G</td>
<td>3.00</td>
</tr>
<tr>
<td>15CLAS499</td>
<td>Independent Study in Classics</td>
<td>Please complete and submit an Independent Application form available from the college office.</td>
<td>NA</td>
<td>1.00-12.00</td>
</tr>
<tr>
<td>15CLAS571</td>
<td>The Minoans</td>
<td>Description not available.</td>
<td>U, G</td>
<td>3.00-4.00</td>
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<tr>
<td>15CLAS572</td>
<td>The Minoans</td>
<td>Description not available.</td>
<td>U, G</td>
<td>3.00-4.00</td>
</tr>
<tr>
<td>15CLAS573</td>
<td>The Mycenaeans</td>
<td>The first of a two-part course sequence. A graduate survey class dealing with the archaeology society, economy, history and art of the Greek mainland from the Paleolithic period to the end of the Bronze</td>
<td>U, G</td>
<td>3.00</td>
</tr>
</tbody>
</table>

**Notes:**
- H = University Honors course.
Classical Civilization

15CLAS744 The Myceneans
The second of a two-part course sequence. A graduate survey class dealing with archaeology, society, economy, history and art of the Greek mainland from the Paleolithic period to the end of the Bronze Age and the beginning of the Dark Ages. Credit Level: G. Credit Hrs: 4.00

15CLAS781 Roman History: Early Rome
Early Roman history from the origins of Rome, the monarchy and the early Republic through the Middle Republic. Credit Level: G. Credit Hrs: 4.00

15CLAS782 Roman History: Late Republic
History of the Roman Republic from the time of the Gracchi to that of Julius Caesar. Emphasis is placed on the causes of the fall of the Republic. Credit Level: G. Credit Hrs: 4.00

15CLAS783 Roman History: Empire
Political, social and economic history of the Roman Empire from Augustus to Antonines. Credit Level: G. Credit Hrs: 4.00

15CLAS784 Archaic Greece
The history of Greece in the Dark Age and the Archaic period. The emergence of the city-state, colonization, and the constitutional development of Sparta and Athens to the end of the sixth century B.C. Credit Level: G. Credit Hrs: 4.00

15CLAS785 Greece: Pericles
The Age of Pericles and the 4th century B.C. The social and political history of Greece in the 5th and 4th centuries B.C. Credit Level: G. Credit Hrs: 4.00

15CLAS786 Greece: Hellenistic
Alexander the Great and the Hellenistic World. The social and political history of the Greek world from the 4th to the 2nd centuries. B.C. B.C. Credit Level: G. Credit Hrs: 4.00

15CLAS788 Greek and Roman Warfare
A study of Greek and Roman tactical methods and army structure. This course was formerly known as 15HIST442. Credit Level: G. Credit Hrs: 4.00

15CLAS790 Bread and Butter Course on Food Production and Consumption in the Ancient World
Survey of food production and consumption in the ancient world, with a special focus on the social organization of agriculture (leases, estates) and the development of entitlements (taxes, doles). Credit Level: G. Credit Hrs: 4.00

15CLAS841 Art History and Ancient Art
This seminar will examine art historical approaches to the material culture of ancient Greece and Rome. We will consider both the history of art historical interpretation and the application of recent theoretical approaches to ancient art. Credit Level: G. Credit Hrs: 4.00

15CLAS852 Cincinnati Art Museum Internship
Deals with problems in exhibition design, conservation, and cataloguing, and includes research on works of ancient art in the collection of the Cincinnati Art Museum. Credit Level: G. Credit Hrs: 4.00-12.00

15CLAS868 Greek and Roman Warfare
A detailed look at weaponry, tactics, and logistics, and the interaction of societies and armies. Credit Level: G. Credit Hrs: 4.00

15CLAS871 Master's Thesis Research
Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15CLAS872 Roman Architecture
Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS873 Roman Painting
Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS874 Prehistoric Macedonia
Survey of the prehistory of Macedonia from the beginning of the Neolithic to the Archaic period. Discussion of major sites by period. Presentation of archaeological and historical evidence. Credit Level: G. Credit Hrs: 4.00

15CLAS875 Introduction to Graduate Studies
1 gr. cr. Credit Level: G. Credit Hrs: 1.00

15CLAS877 Pompeii and Herculaneum
This course examines the methods, motives and results of the excavations of Pompeii and Herculaneum over their 250 year history. Special attention to urban development. Credit Level: G. Credit Hrs: 4.00

15CLAS878 Roman Sculpture
The history of Roman historical reliefs and coinage from the beginning of the Republic through the reign of Augustus. Second quarter continues the study through the Julio-Claudian to the Constantine era. (Two quarter sequence.) Credit Level: G. Credit Hrs: 4.00

15CLAS879 Roman Sculpture
Second quarter sequence. See 15-007-878. Credit Level: G. Credit Hrs: 4.00

15CLAS882 Greek Sanctuaries I
Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS883 Greek Sanctuaries II
Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS901 Ptolemaic Empire
A study of the papyrological, epigraphic, numanistic and archaeological evidence for the Ptolemaic empire. Formerly 15HIST901. Credit Level: G. Credit Hrs: 4.00

15CLAS902 Seleucid Empire
A study of the papyrological, epigraphic, numanistic and archaeological evidence for the Seleucid empire. Formerly 15HIST902. Credit Level: G. Credit Hrs: 4.00

15CLAS903 Roman Religion
The historical development of priesthood cult practices with particular emphasis placed on the religious practices of Roman public life. Formerly 15HIST903. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
Classical Civilization

15CLAS905
State Origins
A comparative study in the origins and evolution of state institutions of ancient Greece and Rome. Formerly 15HIST905. Credit Level: G. Credit Hrs: 4.00

15CLAS915
Homerian Archaeology
Relevance of Homerian texts to understanding the Aegean Bronze Age. Integration of textual and archaeological approaches through application to specific case studies. Credit Level: G. Credit Hrs: 4.00

15CLAS919
Aegean Bronze Age Iconography in Context
A seminar on visual representation in the prehistoric Aegean placing special emphasis on late Bronze Age media (frescoes, seals, stone and clay vases, figurines) discussed in relation to their archaeological context. Credit Level: G. Credit Hrs: 4.00

15CLAS920
Crete and Cyprus in the Late Medieval and Early Modern Period
Society & economy of Crete & Cyprus c.1200-c.1600 with particular reference to settlement patterns and land use. Consideration given to integration of archeological & historical material to reconstruct history of the landscape. Credit Level: G. Credit Hrs: 4.00

15CLAS921
The Religious Context of Early Christianity
Surveys religions in the Roman world, including Christianity. Discusses approaches to religion, especially the "Religious History School." Compares public and private religion. Explores the boundaries of religions, where they meet, parted, and stopped being religions. Evaluates the contribution of other religions to early Christianity. Credit Level: G. Credit Hrs: 4.00

15CLAS922
Roman North Africa
Detailed survey of Roman North Africa from the Republic through late antiquity. Credit Level: G. Credit Hrs: 4.00

15CLAS923
Archaeology of Colonization
Approaches to the study of colonization through examination of material culture. Case studies from the Greek world with special attention to Illyria, the Black Sea, and southern France. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS925
Gender and Theory in Archaeology
Theories and methods by which archaeologists can trace gender distinctions in past societies from material remains. Credit Level: G. Credit Hrs: 4.00

15CLAS927
Archaeology of Hadrian's Empire
Combines the study of ancient historical sources with a full examination of the archaeological evidence to illumine the reign of Hadrian and his influence across the Mediterranean world. Credit Level: G. Credit Hrs: 4.00

15CLAS928
Pausanias' Greece
Explores Pausanias; Perigesis as a resource for understanding concepts of the past, place and identity in the ancient world. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS929
Landscape Archaeology in Kea, Greece
Integration of textual evidence and results of archaeological research to reconstruct the long-term history of the Greek island of Kea. Focus on 7th through 1st centuries B.C. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

Classical Civilization

15CLAS930
Pots and Potters
Analysis and discussion of the latest tools, theoretical approaches, and methodological perspectives available to archaeologists for the study of ceramics. Credit Level: G. Credit Hrs: 4.00

15CLAS931
Applied Techniques in Archaeological Field Research
Application of techniques developed in the physical and biological sciences to archaeological field research. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS932
Neolithic and Early Cycladic Archaeology
A detailed analysis of earliest settlement in the Aegean islands of Greece as revealed by archaeological investigations in the past century. Includes consideration of relevant theory and method. Credit Level: G. Credit Hrs: 4.00

15CLAS933
Archaeology of Troy
A survey of recent archaeological discoveries at the site of Troy in northwestern Turkey. The seminar will deal also with problems in the interpretation of gaps in habitation, cult activity, and domestic architecture. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15CLAS935
Social Complexity
A survey of the archaeological and related literature (1940s-present) on the processes that lead to and sustain complex socio-political organizations. Examples from Old and New World. Credit Level: G. Credit Hrs: 4.00

15CLAS937
Sexuality in Greece and Rome
This seminar examines the cultural construction of sexuality in ancient Greece and Rome. The emphasis is on hermeneutics: problems of interpretation, cultural poetics, past and present biases. We will examine both literary and visual sources. Class meets with 15Grk937. Credit Level: G. Credit Hrs: 4.00

15CLAS940
Evolution of Ancient Athens
History of the economic, social and urban development of the city of Athens and its interrelationship with Greek urban development. Credit Level: G. Credit Hrs: 4.00

15CLAS942
Seminar: Classical Architecture
Description not available. Credit Level: G. Credit Hrs: 4.00

15CLAS943
Houses and Households in Ancient Greece
Examination of archaeological and literary evidence for ancient Greek domestic life. Will include discussion of architecture, material culture, iconography, women's roles in the home, and the "family." Credit Level: G. Credit Hrs: 4.00

15CLAS944
Archaeological Theory
Seminar in classical and pre-classical archaeology. Review and critique of modern archaeological theory as relevant to Mediterranean archaeology. Credit Level: G. Credit Hrs: 4.00

15CLAS945
Archaeological Field Methods
Principles of archaeological fieldwork in the Mediterranean, both excavations and survey. Credit Level: G. Credit Hrs: 4.00

15CLAS946
Regional Studies and Prehistory
This seminar examines the development of techniques of surface archaeological survey and other methods of regional reconnaissance, as they come to be practiced in Greece. Participants in the seminar

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<tr>
<td>15CLAS946</td>
<td>Regional Studies and Prehistory</td>
<td>Evaluate the success of these research programs as they pertain to the study of Greek history. What have they contributed to our understanding of the Paleolithic, Neolithic, and Bronze Age of Greece? Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS947</td>
<td>Regional Studies and Prehistory</td>
<td>A seminar dealing with various topics on the development of Roman warfare such as tactics, strategy, social and economic effects, and institutional development. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS950</td>
<td>Greek Sculpture I</td>
<td>Description not available. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS951</td>
<td>Greek Sculpture II</td>
<td>Description not available. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS952</td>
<td>Problems in Greek Dark Age Archaeology</td>
<td>Designed for graduate students interested in studying the Early Iron Age and Early Archaic periods in Greece and Rome. Questions involve change and continuity from the Late Bronze Age; problems in the reconstruction of social history; pre-polis evolution. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS954</td>
<td>Seminar: Bronze Age, Cyprus</td>
<td>Description not available. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS955</td>
<td>Seminar: Mycenaean Abroad</td>
<td>Description not available. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS956</td>
<td>Coming of the Greeks</td>
<td>Research seminar examining the Greek Early Bronze Age including archaeological and linguistic evidence for cultural continuity. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS957</td>
<td>The Symposium and Symposium Literature</td>
<td>Archaic and Classical poetry and its metasympotic elements; archaeological material and visual evidence in Archaic and Classical Greece with a focus on the socio-cultural function of communal drinking. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS958</td>
<td>Seminar: The Aegean</td>
<td>Description not available. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS959</td>
<td>Phoenicians, Italians and Greeks</td>
<td>An examination of the interaction between Phoenicians, Greeks and Italian peoples in the Western Mediterranean during the first half of the first millennium B.C. We will explore cultural exchanges in the areas of religion, social institutions and artistic and craft traditions. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS960</td>
<td>Greek Architecture</td>
<td>Intensive study of 5th-4th century temple construction techniques from the archaeological and epigraphical evidence. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS961</td>
<td>Art and Myth</td>
<td>Description not available. Credit Hrs: 4.00</td>
</tr>
</tbody>
</table>

**Classical Civilization**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>15CLAS962</td>
<td>South Italy: Greek Colonists and Their Neighbors</td>
<td>An examination of the evidence for interactions between Greeks and indigenous populations in Italy during the 5th to 3rd centuries BCE. A particular focus will be on figure decorated pottery, its iconography and markets. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS963</td>
<td>Mediterranean Landscape Archaeology</td>
<td>Purpose of this seminar is to examine critically the assumptions of Landscape Archaeologists, as well as the history of this subdiscipline. Case studies will focus particularly on the archaeology of historical periods, particularly of Roman times. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS964</td>
<td>Pompeian Archaeology</td>
<td>An intensive study of the art and archaeology of Pompeii and other sites around the Bay of Naples, with a concentration on cultural and urban development. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS965</td>
<td>Greek and Roman Warfare</td>
<td>Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS966</td>
<td>Reading in Ancient History</td>
<td>Directed readings on various topics in ancient history with either an exam or paper. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>15CLAS967</td>
<td>Roman Constitution</td>
<td>A study of the history of Roman Public Law dealing with the historical development of magistracy, Senate, and assemblies. Formerly 15HIST984. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS968</td>
<td>Early Roman Empire</td>
<td>Concentration on the Julio-Claudian period with special emphasis on the reign of Augustus and the formation of the new political and social structures that accompanied the inception of the empire. Formerly 15HIST986. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS969</td>
<td>Late Roman Empire</td>
<td>Intellectual and institutional history from the time of Commodus to Theodosius; emphasis is given to source criticism and methodological problems. Formerly 15HIST988. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS970</td>
<td>Topics in Roman History</td>
<td>Seminar dealing with Republican and Imperial Roman history such as political development and changing economic and social structure. Formerly 15HIST990. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS971</td>
<td>Doctoral Dissertation Research</td>
<td>Offered ea. qtr. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>15CLAS972</td>
<td>Ancient Numismatics</td>
<td>History of coinage in the Greco-Roman world. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS973</td>
<td>Mediterranean Landscape Archaeology</td>
<td>Purpose of this seminar is to examine critically the assumptions of Landscape Archaeologists, as well as the history of this subdiscipline. Case studies will focus particularly on the archaeology of historical periods, particularly of Roman times. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15CLAS974</td>
<td>Mediterranean Landscape Archaeology</td>
<td>An intensive study of the art and archaeology of Pompeii and other sites around the Bay of Naples, with a concentration on cultural and urban development. Credit Hrs: 4.00</td>
</tr>
</tbody>
</table>

**H**—University Honors course.

Communication

15COMM242  Introduction to Public Relations
Credit Hrs: 3.00

15COMM243  Public Relations Writing
Theory and practice of public relations in various writing situations; writing and editing of several types of documents, specific audience concerns, and research issues. Attention is given to both informative and advocacy documents. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM245  Interviewing

15COMM281  Business Communications
Theory and practice in group and conference leadership, persuasive techniques, occasional speaking. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15COMM300  Public Relations Research
An introduction to qualitative and quantitative social science research methods with an emphasis on their application to solving public relations and supporting public relations objectives. Students will develop research projects individually and in groups. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM302  Theories of Argument
Theory and structure of argument, propositions of fact, value, and policy; evidence, reasoning, refutation, and rebuttal. Prereq: 15COMM171. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM303  Public Debate
Case construction; principles, methods, and types of debate. Includes in-class debates. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM306  Introduction to Rhetorical Theory
A survey of the theoretical foundations of rhetorical studies. Emphasis is on the philosophical assumptions of the study of public discourse. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM307  Introduction to Communication Theory
A survey of the theoretical foundations of the scientific study of human communication. Emphasis is on the philosophical assumptions of studying human communication from a scientific perspective. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM308  Communication in Organizations
Introduction to the role of communication in shaping organizations. Primary emphasis is on internal organizational processes. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM326  Introduction to Mass Communication
Introduction to the development, characteristics and functions of mass media in society. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM344  Public Relations Case Studies
Students read and discuss PR case studies to gain applied knowledge of theories and principles applicable across various PR situations. Prereq: 15COMM242. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Communication

15COMM348
Nonverbal Communication
Study and analysis of non-linguistic and paralinguistic communication, introduction to nonverbal communication research and the experimental method. Prereq: 15COMM176. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM349
Intercultural Communication
Introduction to theories and principles of intercultural communication: attention to how cultures are constructed from a communication perspective and the role of perception, verbal and nonverbal behaviors, and conflict in intercultural communication. Prereq: 176. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15COMM349H
Cincinnati, Poverty and Intercultural Communication
To provide honors students with an introduction to current intercultural communication theory through experiential involvement with local marginalized communities (those living in poverty). BoK: DC. Credit Level: U. Credit Hrs: 3.00

15COMM350
Public Relations
(Formerly 30JOUR274.) A general introduction to the theory and practice of public relations, including analysis, planning, implementation and evaluation. Participants will review public relations as a career and as a communications process. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15COMM351
Managing the Public Relations Campaign
Introduction to the planning, implementation and evaluation of the public relations campaign. Review of case studies from a variety of contexts, utilizing an array of media. Prereq: 30JOUR301. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15COMM352
Public Relations for Non-Profit Organizations
Survey of the practice of public relations in a non-profit environment. Integration of public relations with the practice of fund raising and audience development. Prereq: 30JOUR301. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15COMM371
Communication Criticism
Study of standards of basic criticism of speeches and methods for the application of these standards for analysis and evaluation. Prereq: 15COMM202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM391
Interning in Communication
A position related to communication providing professional experience under faculty guidance. Prereq: 15COMM188. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15COMM392
Project in Communication
Students, under faculty guidance, will develop and pursue a historical, critical, empirical, or experimental project in communication. Prereq: 15COMM306, 15COMM307. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15COMM395H
Appalachian Culture and Intercultural Communication
Students will explore local, regional and national issues germane to Appalachian culture and explore intercultural Communication theories relevant to the culture. Participation with an alternative spring break is a required element of this course. (Travel cost will be incurred). BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00

15COMM401
Rhetorical Theory
Study and critique of classical, British and contemporary rhetorical theories. Prereq: 15COMM306. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM402
Family Communication
Study of family relationships and the role of communication in their development. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15COMM403
Gender Communication
Study of the gender variable as it influences communication between men and women, including topics of self-concept and identity, sex roles and stereotypes, interpersonal perception and attraction, leadership and differences in male/female verbal and nonverbal codes. Prereq: 15COMM176. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15COMM404
Health Communication
Communication theory, concepts, and research within the health care context. Examines the changing relationship of health care consumers and medical practitioners in our society and communication issues in illness, stress, coping, social support, media health campaigns, cultural factors, and the use of technology in health care within the U.S. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15COMM405
Communication and Health Politics
This course examines the role of rhetoric and culture in the realm of health care, including public health, medical care, and research. We will examine the ways in which multiple interest groups shape public discourse in advocating their position, and the influence of health. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15COMM406
Organizational Diversity: Race and Gender in the Workplace
In this course, gender and race in organizations will be examined from a macro (organizational) and micro (individual) perspective. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15COMM407
Communication Theory
Examination of the process of theory construction in communication studies. Examines philosophical issues, genres of theory, and current theoretical trends. Prereq: 15COMM307. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15COMM408
Leadership Communication
An analysis of leadership as a process and from the standpoint of discourse and communication. Topics include communication styles, power and influence, and leadership in terms. Prereq: 15COMM308. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15COMM409
Organizational Identity, Image, and Issue Management
Integrated theories of organizational communication, public relations, and issue management, strategic communication aimed at managing organizational identity and image with internal and external audiences. Students are expected to think critically about the ethical and political implications of organizational discourse for democratic practices. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15COMM411
Non-Traditional Rhetorical Theories
Non-traditional and non-Western rhetorical theories including African-American, Native American, Chinese, Islamic and Feminist rhetorics; distinctive characteristics of selected rhetorical theories and how they differ from traditional or Western theories. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Students work in groups to design a PR campaign for local clients. Independent research project for students in Honors Program. BoK: SS. Level: U. Credit Hrs: 3.00

Students work toward designing an original project. BoK: NA. Credit Level: U. Credit Hrs: 3.00

An introduction to research methods in communication studies. Credit Level: U. Credit Hrs: 3.00

Selected topics in communication for undergraduate majors. BoK: NA. Credit Hrs: 3.00

The relationship between gender and new media. What constitutes gender and new media; the ways in which gender and new media help "produce" each other; the ways in which gender roles and inequities based on them are perpetuated in the promotion of new media; the context- culture, historical, ideological, and economic--- in which new media and gender produce each other. BoK: SE., HU. Credit Hrs: 3.00

In-depth and fundamental understanding of public opinion and the mass media, both for individuals and societies. The nature of public opinion historical development, "rationality", and levels of analysis), (groups, industry, the press, and technology), social and psychological contexts (cognitive, social-psychological, social-reality based perspectives), cross-level processes (agenda-setting, issue framing, conflict and consensus, opinion origins and consequences, journalistic narrative) and public opinion and policy (public discourse, rationality claims, public judgments and influence of polling on democratic institutions and processes). BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

Provides students with an understanding of the communication processes. Prereq: 15COMM176. BoK: SS. Credit Level: U. Credit Hrs: 3.00

An extended understanding of the influence of mass communication and the individual, with particular emphasis on media effects. Covers such questions as who is affected, what effects occur and how much, what different media content is involved, what situations make effects more or less likely and the role of audience member's activity. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

Provides grounding in mediated communication theory and is designed to explain the role of contemporary media for individuals and society at large in a changing environment. BoK: SE., HU. Credit Hrs: 3.00

Examines the relationship between media and culture, with particular focus on key topics of the day using perspectives that integrate history, politics, class, race, ethnicity, and gender. BoK: SE., HU. Credit Hrs: 3.00

Application of intercultural theories and principles and in-depth analysis of specific cultures. Experiential work in economically marginalized communities. Formerly 15COMM549. Prereq: 15COMM349. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

Survey of recent research on Interpersonal persuasion and compliance gaining. Prereq: 15COMM176. BoK: SS. Credit Hrs: 3.00

An examination and analysis of the rhetorical genres of the contemporary American presidency. BoK: SS. Credit Level: U. Credit Hrs: 3.00

Case studies of rhetorical protest and reform activities in U.S. and/or abroad. BoK: HP. Credit Level: U. Credit Hrs: 3.00

Case studies of contemporary persuasive campaigns by individuals and/or organizations. BoK: HP. Credit Level: U. Credit Hrs: 3.00

Investigation of environmental communication, focusing on efforts by individuals, institutions, corporations, movement leaders, scientific
Communication

15COMM467 Environmental Communication
experts and politicians to describe and influence human interactions
with the environment. Prereq: 15COMM306. BoK: HU, SE. Credit Level:
U. Credit Hrs: 3.00

15COMM468 Rhetoric of Science
Key theories and concepts of science have also been at the heart of
public debate. This class will examine the rhetoric used around these
issues in multiple contexts to identify and evaluate the persuasive
strategies being utilized. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15COMM470 Interpersonal Conflict
Examination of the conflict process; theories and models of conflict
resolution. Prereq: 15COMM176. BoK: SS. Credit Level: U. Credit Hrs:
3.00

15COMM478 Mass Media Ethics
To develop critical reasoning in the analysis of current moral questions
as they relate to mass communication. Ethical theories will be studied
and applied to issues and problems uniting theory and practice. BoK:
SE. Credit Level: U. Credit Hrs: 3.00

15COMM508 Organizational Cultures
The culture metaphor is used to view the way organizations are
communicatively constructed. Problems of culture change, subcultures,
language, leadership. Prereq: 15COMM308. BoK: DC. Credit Level: U,
G. Credit Hrs: 3.00

15COMM543 Advanced Interpersonal Communication
Examination of interpersonal communication theories and research
Prereq: 15COMM176. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15COMM549 Advanced Intercultural Communication
Application of intercultural theories and principles and in-depth analysis
of specific cultures. Prereq: 15COMM349. BoK: SE. Credit Level: U, G,
Credit Hrs: 3.00

15COMM557 Communication and the Presidential Campaign
An examination and analysis of the campaign communication strategies
and techniques used by modern presidential candidates. BoK: HP.
Credit Level: U, G. Credit Hrs: 3.00

15COMM579 Seminar in Media Literacy
Advanced study of issues related to media coverage of environmental
and health controversies. BoK: SS. Credit Level: U, G. Credit Hrs:
3.00

15COMM605 Rhetoric of Social Movements
Study of the evolution of social movements and the role rhetoric plays in
social movements. Prereq: 15COMM401. BoK: HU. Credit Level: U, G,
Credit Hrs: 3.00

15COMM638 Seminar in Analysis of Media
Qualitative content analysis of comedy, drama, children's programs,
advertising, and news. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15COMM639 Communication and Technology
Consideration of theoretical approaches to technological innovation,
especially in the cable and telephone industries. BoK: SS. Credit Level:
U, G. Credit Hrs: 3.00

15COMM643 Interpersonal Communication Theory
This graduate level course is designed to overview the major theories,
Economics

15ECON102H Introduction to Economics (Honors)
3 ug cr MACROECONOMICS (Honors). Honors students only. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON103 Contemporary Economic Issues
Economic issues in a political environment; international trade, labor, income distribution, welfare, growth, alternative economic systems. Transfer Module. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15ECON103H Introduction to Economics (Honors)
Departmental approval required. The third offering in a three-part course sequence. Transfer Module. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15ECON105 Introduction to the Global Economy
Introduces international trade and finance. Topics include comparative advantage trade theories, protectionism, exchange rates and issues to globalization. Prereq: 15ECON101, 15ECON102. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ECON171 Entertainment Economics
Explores the modern entertainment industry, with particular emphasis on professional sports, the motion picture industry, and television. The course sheds light on the billions of dollars spent by these industries and the public's demand/willingness to pay for the entertainment they provide. A freshman seminar. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON271 Microeconomics
Theory of demand, production and cost as applied to the operation of business firms. (Not open to Econ. majors.) Prereq: 15ECON101. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON298 Directed Study - Economics
This course is designed for students who require individualized instruction in Economics. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ECON301 Economic Thought and Literacy
Historical development and main tenets of schools of economic thought; analytical economic approaches to issues; appraising economic literature. BoK: HP, SS. Credit Level: U. Credit Hrs: 3.00

15ECON320 Statistics for Economists
4 ug cr Introduction to statistics and its applications in economics. Topics include descriptive statistics, the concepts and application of probability theory, random variables, distributions, statistical inference, and an introduction to regression. No previous knowledge of statistics will be assumed but the use of formulae and the ability to perform basic algebraic manipulations will be necessary. Prereq Math 225, 226, 227, or equivalent BoK: NA. Credit Level: U. Credit Hrs: 4.00

15ECON321 Introduction to Applied Econometrics
4 ug cr Introduction to econometrics with an emphasis on interpretation and applications. Econometrics is concerned with the connection between economic concepts, theories and hypotheses on the one hand, and 'real world' economic data on the other. Typical econometric tasks include, for example, the quantification of economic relationships (such as demand curves), and testing of hypotheses derived from theory. Covers the fundamental econometric technique of regression analysis and a variety of model specification issues. A central goal is to provide students with the necessary skills and knowledge to use and to correctly interpret the output from econometrics software. Prereq Econ 320 Prereq: 15ECON320. BoK: NA. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
15ECON321
**Introduction to Applied Econometrics**
4 ug cr Introduction to econometrics with an emphasis on interpretation and applications. Econometrics is concerned with the connection between economic concepts, theories and hypotheses on the one hand, and 'real world' economic data on the other. Typical econometric tasks include, for example, the quantification of economic relationships (such as demand curve analyses), and testing of hypotheses derived from theory. Covers the fundamental econometric technique of regression analysis and a variety of model specification issues. A central goal is to provide students with the necessary skills and knowledge to use and to correctly interpret the output from econometrics software. Prereq Econ 320 Prereq: 15ECON320. BoK: NA. Credit Level: U. Credit Hrs: 4.00

15ECON341
**Microeconomic Theory**
Exposition of the general principles and analytical tools of microeconomic theory. Topics include theory of consumer choice, intertemporal choice, and choice under uncertainty. Prereq: 15ECON101. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON342
**Microeconomic Theory**
Exposition of the general principles and analytical tools of microeconomic theory. Topics include the analysis of competitive and monopoly markets, oligopoly, pricing, externalities and public goods, and welfare. Prereq Econ 341 Prereq: 15ECON341. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON343
**Microeconomic Theory**
Exposition of the general principles and analytical tools of micro theory. Topics include the economics of information, market failure, general equilibrium analysis, externalities, property rights, and government. Prereq Econ 341 and 342 or permission of instructor Prereq: 15ECON342. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON371
**Money, Banking and the Economy**
Demand for and supply of money, and roles of commercial banks, other financial intermediaries, and Federal Reserve System in determining the supply of money and its impact on the economy. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON372
**Macroeconomics**
Measures of aggregate economic performance, determination of aggregate output, employment, the price level and income, inflation, business fluctuations, impacts of monetary policy, effects of government taxation, spending and the national debt. Prereq Econ 101 and 102 Prereq: 15ECON101, 15ECON102. BoK: SS, QR. Credit Level: U. Credit Hrs: 4.00

15ECON422
**Teaching Assistant Practicum for Undergraduate Students**
Supervised experience as teaching assistant for undergraduate courses. Can take for three quarters. Economics GPA of 3.0 or better and at least 21 credit hours in advanced economic courses. Student T.A.s for Econ. 101 or 271 must have a grade of B or better in Econ. 341 and 342. Student T.A.s for Econ. 102 must have a grade of B or better in Econ's 371 and 372. Maximum of 6 credits. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ECON431
**Honors Seminar**
Analytical study of a current economic issue. Writing of the senior thesis. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON432
**Honors Seminar**
Continuation of 431. Prereq Econ 431 BoK: SS. Credit Level: U. Credit Hrs: 3.00
A detailed analysis of the economic reforms that occurred in China and Vietnam which led to the adoption of market systems. Theories of economic transition are used for the basis of the analysis, focusing on the institutions necessary to operate a market system which are absent in a planned economy. The structure of and current problems in these economies is also be discussed. Prereq: 15ECON101, 15ECON102. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON542
Contemporary Japanese Economy and Business
A review of Japan's economic performance from the end of WWII to the present using the major theories of economics fluctuations. Special attention is paid to the institutions particular to the Japanese economy and their influence on economic decisions. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00

15ECON543
East Asian Economies: Development and Crisis
A study of growth of the four Asian Tigers (Singapore, S. Korea, Taiwan, and Hong Kong) and other East Asian countries (Thailand, Malaysia, etc.). Also analyzes the Asian financial crisis (which adversely affected these economies) and trade associations (ASEAN, etc.) making the area a force in the global economy. Prereq: 15ECON101, 15ECON102. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON552
International Economics
Trade and capital movements, balance of payment problems, operation of exchange systems, determination of exchange rates. Prereq: 15ECON372. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON557
Economics of Work and Family
Theoretical and empirical methods for the analysis of issues related to work and family with special reference to economics of household production, joint labor supply, economics of marriage and divorce, economics of fertility, economics of family child care, household occupational differentiation, household structure and labor market outcomes. Many applications including leave policies, divorce laws, tax policies, etc. Prereq: 15ECON341. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON558
Labor Market Analysis
Theoretical and empirical methods for the analysis of labor markets with special reference to areas such as labor supply, labor demand, wage determination, and compensating wage differentials Many applications including effects of taxation, income maintenance programs, technological change, minimum wages, etc. Prereq Econ 341 Prereq: 15ECON341, 15ECON342. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON559
Labor Market Issues
Analytical, empirical and institutional approach in analyzing issues in selected areas such as human capital theory, internal labor markets, economics of discrimination, economies of trade unions, economics of sports, and economies of immigration. Covering applications such as effects of affirmative action, on the job training, and bilateral monopoly. Prereq Econ 341 Prereq: 15ECON341, 15ECON342. BoK: SS, QR. Credit Level: U, G. Credit Hrs: 3.00

Economics
15ECON521
Economic Data Analysis II
and assessment. Students will design and conduct an applied economics research project using statistical and econometric techniques. BoK: SS., QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON529
Economics Teaching Materials
Teachers will examine the economic content and how to use various instructional methods in teaching them in grades K-12. This course does not satisfy requirements for a graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15ECON531
Implementing Economic Curriculum
Experienced-based economics curriculum units appropriate for elementary and secondary classrooms. This course does not satisfy requirements for a graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

15ECON533
Basic Economic Concepts for Teachers
Focus on basic economic concepts and specific strategies for teaching of economics, analysis of economic concepts appropriate for K-12 curriculum, methods of instruction and materials, review of research in economic education; application of basic concepts to current issues. This course does not satisfy requirements for graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

15ECON534
Microeconomic Principles for Teachers
Continuation of 15-080-533. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

15ECON535
Macroeconomics for Teachers
Continuation of 15-080-534. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

15ECON536
Money and Banking for Teachers
Study of the structure and functions of the Federal Reserve, banks, and non-bank institutions, monetary policy and economic stabilization. This course does not satisfy requirements for graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

15ECON537
Economics of Health
Role and economic significance of health in the U.S., health expenditures as investments in human capital, determination of price and output in health services market, problem of possible monopolization and unfair trade practices in health field, role of government in provision of health care. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON538
Study of American Industry for Teachers
A study of American industries including production and distribution processes. Attention will be given to economic, social, and political factors influencing the operation of the industry. This course does not satisfy requirements for graduate degree in Economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15ECON539
Topics in Economic Education
Analysis of economic topics such as labor, competition, productivity, decision-making, and government regulation. Teachers will develop economic analysis skills. This course does not satisfy requirements for graduate degree in economics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

15ECON541
Economies of China and Vietnam: Transition
A detailed analysis of the economic reforms that occurred in China and

H=University Honors course.
Economics

15ECON565 Industrial Organization

15ECON567 Politics and Economics

15ECON569 Anti-Trust Policy and Trade Regulation
The history, laws, and economics of the anti-monopoly and trade regulation policies of the government. Prereq Econ 342 BoS: SS. Credit Level: U, G. Credit Hrs: 3.00

15ECON570 Regional Economics
Uses microeconomic analysis to investigate how local/regional areas evolve and how public policies may affect patterns of growth and change, identify inefficiencies in location choices and analyze alternative public policies promoting efficient regional resource allocation choices. Prereq: 15ECON341. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ECON571 Stabilization Policy
A study of economic functions including measurement, history, and theory. Major theories of economic fluctuations are surveyed along with a historical review of global fluctuations and their causes. Statistical measurement of cycles and a survey of forecasting techniques are also included. BoK: SS., QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON575 Economic Development
Considers the economic challenges facing the world's developing nations. Focuses on possible economic policies to encourage economic development. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON578 Law and Economics
An examination of the areas of mutual concerns in law and economics including property, contracts, torts, and antitrust policy. Prereq Econ 341 BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON580 Economic Contract Law
An examination of the economic basis for contracts and of the economics of remedies for breach of contract. Prereq: 15ECON101. BoK: SS, SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON581 The Economics of Tort Law
An examination of the economics of tort law including an analysis of negligence and its defenses and an analysis of product liability. Prereq: 15ECON101. BoK: SS, SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON585 Stock Markets and Investments I
Operation of the stock market and behavior of traders. Rules and regulations governing behavior in the market. BoK: SS., QR. Credit Level: U, G. Credit Hrs: 3.00

15ECON592 Economics and the Environment
Analysis of how consumption and production choices impact upon the environment and the conditions under which market outcomes can be made consonant with environmental quality. Application of economic instruments and market incentives to promote environmental quality with applications to all environmental media. Issues of sustainability.

15ECON593 Economics of Natural Resources and Sustainability
Problem of natural resource overuse and sustainability of living standards. Human behaviors causing problem. Effectiveness of protection measures. Prereq Econ 101, 102 BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15ECON594 Economics of Transportation
Highway, rail, air, water transportation; rate making, service, security issuance; combination, regulation, policy, and economic effects. Prereq: 15ECON101. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON598 Guided Independent Research
Guided independent research with a faculty member resulting in a scholarly paper. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ECON599 Economics Capstone
Application of economic analysis to current economic topics. Prereq Econ 342, 372 BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ECON650 Microeconomic Theory
Study of the interactions of households and firms in perfectly and imperfectly competitive markets, under certainty and uncertainty, with symmetric and asymmetric information, in a static world and over time as encountered in the real world. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON651 Microeconomic Theory
Continuation of 15-080-650. Prereq: 15ECON650. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON655 Macroeconomic Theory
Aggregate income and employment theory. Classical and Keynesian models; theories of inflation, growth and problem of external equilibrium. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON666 Game Theory for Economists
Theory and applications of Game Theory in economic decision making. Covers static games, dynamic games, and games with incomplete information. Prereq: 15ECON650. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON667 Theory of Incentives
Theory and applications of principal-agent relationships in the presence of asymmetric information. Optimal contract design in 'adverse selection' and 'moral hazard' situations. Prereq: 15ECON651. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON671 Economic Data Analysis I
Using a variety of computer programs this course will teach the student (1) how to locate secondary sources of economic data; (2) methods that have been used to compile economic data; (3) how to transform, summarize and display economic data and (4) simple statistical techniques to analyze economic data. Prereq Econ 321 or equivalent BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON672 Economic Data Analysis II
An introduction to applied econometric methods for data analysis. The course covers methods of statistical inference and hypothesis testing with a regression-analysis framework. Application from economics.MA
Economics

15ECON672  
Economic Data Analysis II  
standing only. Prereq: 15ECON671. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON678  
Applied Qualitative and Limited Dependent Variable Models  
Models of choice in which the dependent variable is discrete rather than continuous. The models are applied to describe the choice behavior of firms and consumers. Prereq: 15ECON321, 15ECON671. BoK: SS. Credit Level: G. Credit Hrs: 3.00

15ECON680  
Spatial Econometrics  
Covers the use of exploratory spatial data analysis techniques as well as the use of spatial regression models and appropriately define estimators for spatial data. Credit Level: G. Credit Hrs: 3.00

15ECON680  
Spatial Econometrics  
Continuation of 672. Topics include regression diagnostics, analyzing time-series and cross-sectional data, statistical model selection and assessment. Students will conduct applied economic research projects using statistical and econometric techniques. MA standing only. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15ECON705  
MA Thesis Research  
MA Thesis Research Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

15ECON711  
Economics for Managers  
Opportunity cost, price, demand theory, firm and market behavior, pricing practices and policies, and factor markets. Credit Level: G. Credit Hrs: 4.00

15ECON918  
Advanced Individual Work in Economics  
One or more gr. cr. Departmental approval required. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

15ENGB250  
Shakespeare's Plays  
A survey of Shakespeare's major plays for the non-major. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB256  
Modern Drama  
An exploration of the diverse forces which shape modern drama in Europe and America, such as realism, expressionism, and theatre of the absurd. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB259  
Myth and Literature  
An examination of myth as it provides the fundamental building blocks for literature. Both the ancient myths and their modern incarnations will be studied. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB306  
Introduction to Shakespeare  
This course gives students the skills for the further study and enjoyment of Shakespeare. Through an intensive study of five plays, the course will highlight the variety of genres, characters, styles, and problems that characterize Shakespeare's work. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB307  
Shakespeare  
The comedies, histories, and early tragedies to 1600. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGB308  
Shakespeare  
The major tragedies, "problem" comedies, and romances. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.  
BoK (Breadth of Knowledge) Coding.  
### English - British Literature

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Prerequisites</th>
<th>Corequisites</th>
<th>offered by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>15ENGB315</td>
<td>History of the Novel</td>
<td>Growth of the novel in social criticism and psychological depth: Bronte, Dickens, Eliot, Hardy, and others. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB316</td>
<td>History of the Novel</td>
<td>New directions for the novel in the 20th century: Conrad, Joyce, Lawrence, Woolf, and others. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB317</td>
<td>Nineteenth Century Gothic</td>
<td>Novels at the edge of the mainstream, exposing unspeakable truths about parent and child, man and woman: Frankenstein, Dracula, Wilkie Collins, Oscar Wilde. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB331</td>
<td>Milton</td>
<td>The minor poems, major prose, and Samson Agonistes. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB334</td>
<td>Survey of English Literature</td>
<td>A survey of British literature from Beowulf to 1600. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB335</td>
<td>Survey of English Literature</td>
<td>A survey of British literature from 1600 to 1800. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB336</td>
<td>Survey of English Literature</td>
<td>A survey of British literature from 1800 to the present. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB348</td>
<td>Renaissance Drama</td>
<td>Readings in the major non-Shakespearean dramas of Tudor England. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB349</td>
<td>Renaissance Drama</td>
<td>Readings in the major non-Shakespearean drama of Stuart England. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB352</td>
<td>The Age of Donne</td>
<td>Poetry and prose of the first half of the 17th century. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB356</td>
<td>Age of Sensibility</td>
<td>An examination of selected literary works in their historical contexts, the second half of the English 18th century, reading Dr. Johnson and a selection of works by Sterne and Gray, Collins, Goldsmith, Smart, Cowper, Crabbe and several of the enchanted poets of the Age of Sensibility. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB361</td>
<td>Romantic Literature</td>
<td>Readings in the first generation of English Romantic poets: Blake.</td>
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<tr>
<td>15ENGB362</td>
<td>Romantic Literature</td>
<td>Wordsworth, and Coleridge and their circles. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB365</td>
<td>The Age of Dickens</td>
<td>Readings in the literature of the mid-Victorian period. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB366</td>
<td>The Age of Hardy</td>
<td>Readings in the literature of the late Victorian period. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB367</td>
<td>Modern British Poetry</td>
<td>From Yeats to the present. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB369</td>
<td>Modern British Drama</td>
<td>The great traditional and experimental dramas of the 20th century. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB370</td>
<td>Modern Irish Literature</td>
<td>A selection of Irish writers (in English) from the period 1800 to the present. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB374</td>
<td>Contemporary British Fiction</td>
<td>British fiction since World War II, from the works of Greene, Golding, Drabble, among others. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB375</td>
<td>Contemporary British Poetry</td>
<td>Reactions and counter-reactions to Modernism from WW II to the present: Dylan Thomas, Philip Larkin, Thom Gunn, Ted Hughes, Seamus Heaney, and others. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB401</td>
<td>Seminar: British Literature</td>
<td>An examination in depth of a major author, historical period, genre, mode, topic, or theme in the literature written in England, Scotland, or Wales. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB402</td>
<td>Seminar: British Literature</td>
<td>An examination in depth of a major author, historical period, genre, mode, topic, or theme in the literature written in England, Scotland, or Wales Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB403</td>
<td>Seminar: British Literature</td>
<td>An examination in depth of a major author, historical period, genre, mode, topic, or theme in the literature written in England, Scotland, or Wales Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15ENGB423</td>
<td>Jane Austen</td>
<td>A study of major issues in Austen scholarship. The recent focus has been on the ironies and complex perspectives of Pride and Prejudice, Emma, Mansfield Park and Persuasion. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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</tbody>
</table>

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H=University Honors course.
English - British Literature

15ENGB439

The City in English Literature
Representations of the city in English literature of the 18th, 19th, and 20th centuries. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB475

Victorian Poetry
This course will be on poets Tennyson, Browning, and Arnold. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGB518

Chaucer I
Studies in the major works. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB519

Chaucer II
Studies in the major works. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB560

English Drama
A mixed graduate and undergraduate course which may focus on drama written in English from any era or nation from medieval to contemporary or post-colonial works by such dramatists as Wole Soyinka or Athol Fugard. It could include Australian, Canadian, Irish, Scottish, Indian, African, Caribbean or American dramatists. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB651

Old English Prose
The introductory course in our Old English sequence: those elements of the language needed to read the language and understand it. We will learn something about the sound of Old English, reading short pieces of edited prose to become accustomed to the look and feel of the language. Finally, we will spend a good bit of time reading from the Anglo-Saxon Chronicle, from Alfred and Aelfric, and from other writers of Old English prose. By the end of the quarter, students will be ready to read the poetry in the winter quarter course. There will be some modern critical readings, a midterm and final exam for all, and a medium-length paper for those students enrolled for four graduate credits. Prereq: 15ENGL300. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB652

Old English Poetry
The second course in Old English: more emphasis on the literature and less on the language. The important shorter poems will be read with excerpts from longer poems such as "Judith." The quarter ends with a reading of the first few hundred lines of Beowulf. In this course there is more time for a study of Old English metrics, literary criticism and a closer look at Anglo-Saxon culture. Prereq: 15ENGB651. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB653

Beowulf
The third offering of the Old English sequence: a close retelling of the epic poem. The critical approach to the seminar will have dual foci. First, the single Beowulf manuscript will be examined in terms of its original production and later transmission. The second focus will be on important critical writings about Beowulf examined chronologically, from 9th century criticism through those of today. This will take place in the context of reading and translating most of the poem. Prereq: 15ENGB652. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGB735

Approaches to British Medieval Literature
Reciprocal gender formation in medieval literature investigating the culture and literary presentational processes that seek to define men and women interdependently. Credit Level: G. Credit Hrs: 4.00

H—University Honors course.
English - British Literature

15ENGB882
Joseph Conrad
level students who already have a strong background in modern literature. Credit Level: G. Credit Hrs: 4.00

English - Comparative Literature

15ENGC204
Readings in Literature
An introductory literature course focusing on the interpretive problems within a selected literary topic. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC205
Readings In Literature
An introductory literature course focusing on the interpretive problems within a selected literary topic. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC206
Readings In Literature
An introductory literature course focusing on the interpretive problems within a selected literary topic. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC215
Human Values in Literature
Introduces non-majors to the literary discussion of such ethical concerns as justice, war and peace, the cost of individual happiness, and acknowledging difference. Prereq: 15ENGL102. BoK: LT, SE. Credit Level: U. Credit Hrs: 3.00

15ENGC240
Topics in Drama
A study of issues raised by and about drama, focusing on texts from many possible nations and time periods. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC265
Literature and Technology
A study of the implications of technology in a colonialisit context in modern literature. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC266
Topics in Cultural Studies
This course introduces students to the critical analysis of some aspect of popular or mass culture. Possible topics include consumerism, television, popular literature, life on-line, museums, the news, celebrity, and youth subcultures, etc. Please see instructor for specific details. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGC304
Development of the Drama
Dramatic literature of ancient Greece and the English Renaissance. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC305
Development of the Drama
European dramatic literature from the 17th through the 19th centuries. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC306
Development of the Drama
Dramatic literature of the 20th century. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC321
Humanities and Human Rights
Course examines the importance of human rights for the humanities, specifically analyzing the intersections of literature, film, and documentaries in representing rights and rights violations within 20th-21st century contexts. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

English - Comparative Literature

15ENGC325
Introduction to Critical Theory
This survey of contemporary theory introduces students to major schools and movements that have shaped the study of literature and culture, such as New Criticism, Structuralism, Post-Structuralism, Deconstruction, Feminist Theory, Psychoanalysis, Marxism, New Historicism, Cultural Studies, Postcolonial Theory, Race Studies, and Queer Theory. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC326
Approaches to Cultural Studies
Examines theoretical approaches to a specific aspect of popular or mass culture, or a specific problem posed by the study of culture. Each section may focus on a different aspect of culture (eg. globalization, online youth cultures, museum culture, reality television, celebrity culture, news & entertainment, popular literature). Prereq: 15ENGL300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC327
Topics in Literary Theory
This course examines specialized topics or themes relating to literary theory. Sections may focus on major theoretical schools or movements, key questions or debates taken up by literary theorists, or approaches to studying works of a particular genre or by a particular author. Please see instructor for specific details. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC334
Folk Humor
Humor from the point of view of orally collected folk materials: the joke, the jest, the comic folk tale, and comic word play. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U. Credit Hrs: 3.00

15ENGC338
Introduction to Medieval Literature I
A survey of epic, lyric, and dramatic works from the Continent and Britain. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC342
Third World Literature
Writing by significant figures on the world literary stage, including prize-winning and influential authors from Africa, the Middle East, Asia, the Americas, Australia, etc. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC357
The Western Tradition in Literature
Intelectual, literary, and cultural backgrounds to literature. Classical and Biblical. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC358
The Western Tradition in Literature
Renaissance and Enlightenment. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC359
The Western Tradition in Literature
Industrial and modern. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC363
African Literature I: Introduction
Contemporary African literature from Nigeria, Ghana, Kenya, Zimbabwe, and Senegal, reflecting both traditional and post-colonial subjects and form. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC364
African Literature II: Topic
A study of topics, themes, genres, or regions in contemporary African literature reflecting both traditional and post-colonial subjects and form. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00
English - Comparative Literature

15ENGC365
African Literature II: Drama
This course focuses on plays written in South Africa, Kenya, Nigeria, and Ghana. They deal with the consequences of colonialism and racism and problems of political cultural, personal and linguistic identity. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC366
Caribbean Literatures
Survey of Carribean literatures organized by genres (such as slave narratives, autobiography, fiction, or drama), historical periods, or central themes (such as colonialism or the environment). Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC370
Modern Poetry
The work of major 20th century poets from various cultures. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC371
Modern Fiction I: Late Nineteenth Century
The novels of such Continental, British, and American novelists as Flaubert, Dostoevsky, Melville, Tolstoy and James. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC372
Modern Fiction II: Early Twentieth Century
The novels of such Continental, British, and American writers as Mann, Kafka, Faulkner, and Joyce. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC373
Modern Fiction III: Mid-Twentieth Century
Continental, British, and American novelists such as Solzhenitsyn, Camus, Borges, Robbe-Grillet, Fowles, and Hemingway. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC383
Celtic Myth and Epic
An exploration of Celtic literature in translation with a particular focus on myth and epic. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC384
Celtic Romance and Lyric
An exploration of Celtic literature in translation with a particular focus on romance and lyric. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGC386
Modern Celtic Literatures, 1900-2000
Irish, Welsh, and Scottish Gaelic are still living languages. This course reads some of the best recent Celtic authors in translation, including poetry of Sorley Maclaren and Saunders Lewis, and fiction by Kate Roberts and Liam O'Flaherty. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC390
Senior Honors Project
Students with a 3.3 GPA and 27 major hours completed are invited to take this course as a trailer or annex to another major-level course they have completed. The starting place is typically a paper produced for that course, whose professor becomes project director and first reader. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGC401
Seminar: Comparative Literature
An examination in depth of authors, periods, genres, modes, topics, or themes in literature from a comparative perspective. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

English - Comparative Literature

15ENGC402
Seminar: Comparative Literature
An examination in depth of authors, periods, genres, modes, topics, or themes in literature from a comparative perspective. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGC403
Seminar: Comparative Literature
An examination in depth of authors, periods, genres, modes, topics, or themes in literature from a comparative perspective. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGC421
The Female Bildungsroman
Novels of maturation or education written in English by women between the late 18th century and the early 20th century. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGC479
Oration to Literature
This class examines some of the different ways in which oral traditions within various cultures such as African or Native American relate to and merge with the written traditions and conventions that we more commonly use to define literature Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGC500
Uncanny Legends
The nature and scholarship surrounding the study of folk legends of all sorts but emphasizing the contemporary or urban legend. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC504
Introduction to Folklore
A survey of the forms and content of folklore with emphasis on oral, traditional narrative. Proverbs to folk drama. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC505
Introduction to Folklore
Myth and epic. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC506
Introduction to Folklore
Folk tale, legend, and ballad. Prereq: 15ENGL300. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC549
Dante's Divine Comedy
A survey of Dante's masterpiece presenting a selection of Canti from Inferno, Purgatorio, and Paradise. The course will be organized in three parts. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGC581
Exile and Displacement in Postmodern Literature
A study of the theme of exile in international literature during the modernist and postmodern periods. Prereq: 15ENGL300. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

H=University Honors course.
English - Comparative Literature

15ENGC664 Modern Irish I
A three-part sequence designed to introduce students to Irish or Gaelic, the official language of Ireland. Students should develop a reading knowledge of standard Irish with attention paid to pronunciation abilities. Prereq: of Instructor. BoK: HU, DC. Credit Level: U. G. Credit Hrs: 3.00-4.00

15ENGC665 Modern Irish II
A three-part sequence designed to introduce studies to Irish or Gaelic, the official language of Ireland. Students should develop a reading knowledge of standard Irish with attention paid to pronunciation abilities. The second offering of a three-part course sequence. Prereq: 15ENGC664. BoK: HU, DC. Credit Level: U. G. Credit Hrs: 3.00-4.00

15ENGC666 Modern Irish III
A three-part sequence designed to introduce studies to Irish or Gaelic, the official language of Ireland. Students should develop a reading knowledge of standard Irish with attention paid to pronunciation abilities. The third offering in a three-part course sequence. Prereq: 15ENGC665. BoK: HU, DC. Credit Level: U. G. Credit Hrs: 3.00-4.00

15ENGC700 Issues in Modern and Contemporary Literary Study
Introduces a range of issues and theoretical approaches focal to the contemporary study of literature. Credit Level: G. Credit Hrs: 4.00

15ENGC701 Introduction to Graduate Study
This course is an informative introduction to graduate study in English at the University of Cincinnati, as well as the profession as a whole. In this course, students find out about the various programs and resources available through the Department of English and get suggestions and advice about planning their overall program of study. Students also learn about many of the wider concerns of the profession, such as strategies for applying for a job or a research grant or for placing an article in a journal. Credit Level: G. Credit Hrs: 2.00

15ENGC704 Approaches to European Literature
Continental Authors in translation. Credit Level: G. Credit Hrs: 4.00

15ENGC706 Approaches to Literary Theory
This class will survey several contemporary trends in literary theory. Credit Level: G. Credit Hrs: 4.00

15ENGC715 Critical Writing in English Studies
Develops a rhetoric of critical writing that is general, heuristic, and portable. Time is split between discussion of critical readings (Foucault, Burke, Tompkins) and workshop student writing. Credit Level: G. Credit Hrs: 4.00

15ENGC730 Teaching College Writing
A composition readings course designed to introduce students to "teaching college writing" from historical, cultural, and socio/political perspectives. In addition to reading some of the important studies in composition scholarship, students work with issues embedded in the phase "multiple literacies" and focus on the significance and negotiation of critical literacy. Credit Level: G. Credit Hrs: 4.00

15ENGC731 Teaching Practicum I
A course preparing graduate assistants to teach undergraduate courses in writing. Required of all first-year Graduate Teaching Assistants and Student Lecturers. Credit Level: G. Credit Hrs: 2.00

15ENGC732 Teaching Practicum II
A weekly seminar to discuss pedagogical and curricular issues as they emerge in the teaching of Freshman English. Required of all first-year Graduate Teaching Assistants and Student Lecturers. Credit Level: G. Credit Hrs: 2.00

15ENGC733 Scholarship of Teaching and Learning
The study and practice of better teaching begins with exploring the differences between teaching and learning. Teachers will learn to focus on assessing student outcomes and to use their classrooms as a resource for enhancing the scholarly understanding of teaching. Credit Level: G. Credit Hrs: 4.00

15ENGC735 Methods of Teaching Literature
This class studies an anthology of contemporary pieces about literary theory (some from the burgeoning field of theory-in-a-classroom, and some not), and an anthology of works that might be typically taught in lower-level English courses. We then spend the quarter exploring the theoretical implications—and the classroom implications—of the activities we and our students perform in reading and writing about literature. Credit Level: G. Credit Hrs: 4.00

15ENGC736 Methods of Teaching Creative Writing
This seminar examines and experiments with various approaches to teaching creative writing workshops: first, by reading and responding to works by a wide range of writer-teachers; second, by developing and presenting writing exercises; third, by conducting actual workshops with advanced undergraduate poets. Credit Level: G. Credit Hrs: 4.00

15ENGC738 Topics in Composition
Intensive 80-hr seminar for H.S. teachers on theory and practice of teaching composition, focusing on writing processes, peer response assignment development, reading-writing connections, critical reflection & assessment. Credit Level: G. Credit Hrs: 4.00-6.00

15ENGC740 Approaches to Literacy
Studies a variety of issues in the social, stylistic, rhetorical, and artistic consequences of the acquisition of reading and writing skills. May focus on particular populations or periods, or critical perspectives. Credit Level: G. Credit Hrs: 4.00

15ENGC744 Approaches to Contemporary Poetry
Survey of recent trends and significant figures in contemporary poetry. Credit Level: G. Credit Hrs: 4.00

15ENGC747 Theorizing Authorship
Explores how theory help to create and respond to the death of authorial authority; where meaning is to be found, including in the text itself or the reader. Credit Level: G. Credit Hrs: 4.00

15ENGC751 Experimental Drama
Experimental drama since modernism, starting with Artaud, Brecht, and Beckett. Explores between experiment and the avant-garde, and looks at performance artists and collaborative work. Pays particular attention to women playwrights, some provocative European writers, and Latin and South American playwrights. Explores the question "How has dramatic experiment edged into the American mainstream?" Credit Level: G. Credit Hrs: 4.00

15ENGC755 Theories of Fiction
Explores how we know that a work is fictional, and how fiction's rules are created and followed; the author's relationships and their fictions; alternative explanations of fictions from a variety of historical, social, and theoretical frameworks. Credit Level: G. Credit Hrs: 4.00
Problems in Literary Theory
The short story is one of the most recent and popular genres to develop. This seminar surveys some of the ways artists and scholars have placed it in a theoretical context. Credit Level: G. Credit Hrs: 4.00

Theorizing the Short Story
The short story is one of the most recent and popular genres to develop. This seminar surveys some of the ways artists and scholars have placed it in a theoretical context. Credit Level: G. Credit Hrs: 4.00

Approaches to Cultural Studies
Introduction to the interdisciplinary study of culture. The course uses both literary and non-literary texts to understand literature and mass communications in their broadest contexts. Theory starts with Lukacs and includes Raymond Williams, Adorno, Althusser. Credit Level: G. Credit Hrs: 4.00

Approaches to Diasporic Studies
Introduction to the interdisciplinary field of diasporic studies, focusing on the impact of diasporic literatures and other forms of cultural production. We will connect literature, film, television and webzines to questions of labor, gender, sexuality, race, transnational activism, and global capitalism. Credit Level: G. Credit Hrs: 4.00

Approaches to Biblical Literature
Contemporary topics in the study of the Bible from a literary and theoretical point of view. Credit Level: G. Credit Hrs: 4.00

Approaches to Modernism
A survey of poetic, fictional, autobiographical and critical texts central to issues in literary Modernism from 1900-1945. The course may focus specifically on either American or British Modernism, or may offer a cross-cultural selection of texts from American and British authors both. Credit Level: G. Credit Hrs: 4.00

Modern Poetry
An exploration of the origins and development of modern poetry in its international context. The course includes the work of the French Symbolist poets. Students also examine some major movements of 20th century poetry, including surrealism, imagism and the poetics of Negritude. Texts are read in translation, with originals available. Modern Poetry is an introductory graduate course; no previous knowledge of the poets' work or the original languages is required. Credit Level: G. Credit Hrs: 4.00

Modern Celtic Literature, 1900-2000
Irish, Welsh, and Scottish Gaelic are still living languages. This course reads some of the best recent Celtic authors in translation, including poetry of Sorley Maclean and Saunders Lewis, and fiction by Kate Roberts and Liam O'Flatherly. Credit Level: G. Credit Hrs: 4.00

Contexts for 20th Century Literary Study
A survey of intellectual issues that underlie modernism and postmodernism, including ideas of the self, history, and culture. Credit Level: G. Credit Hrs: 4.00

Problems in Literary Theory
An examination in depth of either the concerns of a particular critic's approach or a specific problem which cuts across different literary theories--such as the nature of authorship, the subjectivity of the reader, determinacy of meaning. Students should have previously taken at least a survey of literary theory. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
English

15ENGL112  
Advanced English Composition I  
Credit Hrs: 3.00

15ENGL117  
Beauty: Dissecting and Debating an Enigma  
Designed for males and females, this course will examine the ways in which physical beauty is depicted in representative literature and films. Students will use the works to analyze varying attitudes about its nature and significance and will explore and debate whether perceptions of beauty are subjective and culturally determined or objective and influenced by biology and evolution. This is a freshman seminar course. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL118  
Complex Choices/Complex Lives: Moral Conflicts in Popular Literature and Film  
Students in this course will analyze popular novels/films in which characters are faced with ambiguous moral choices. As means of clarifying their own ethical standards, students will examine the reasoning and value systems underlying characters' decisions and will discuss and debate which they consider more principled. This is a freshman seminar course. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL201  
Topics in Literature  
Selected readings chosen to highlight specific literary problems of theme, technique, literary and social heritage. Individual topics are described in listings available from the English office each term. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL202  
Topics in Literature  
Selected readings chosen to highlight specific literary problems of theme, technique, literary and social heritage. Individual topics are described in listings available from the English office each term. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL203  
Topics in Literature  
Selected readings chosen to highlight specific literary problems of theme, technique, literary and social heritage. Individual topics are described in listings available from the English office each term. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL207  
American Writers  
Selected works in American literature from the colonial period to 1865. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL208  
American Writers  
Selected works in American literature from 1865 to 1915. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL209  
American Writers  
Selected works in American literature from 1915 to the present. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL210  
Writing the Informal Essay  
Writers in the 19th and 20th centuries have demonstrated that the informal essay can be aesthetically pleasing and as individualized as a poem or short story. In this course students can learn through reading and writing assignments how to shape the essay for personal expression. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL211  
Creative Writing: Fiction  
Writing of short story; examination and discussion in class of student's work; assigned readings for history, theory of the short story, and critical analysis. Limited to 20 students. Prereq: 15ENGL102. BoK: FA. Credit Level: U. Credit Hrs: 3.00

15ENGL212  
Creative Writing: Fiction  
Writing a short story; examination and discussion in class of student's work; assigned readings for history, theory of the short story, and critical analysis. Limited to 20 students. The second offering in a three-part course sequence. Prereq: 15ENGL102. BoK: FA. Credit Level: U. Credit Hrs: 3.00

15ENGL213  
Creative Writing: Fiction  
Writing of short story; examination and discussion in class of student's work; assigned readings for history, theory of the short story, and critical analysis. Limited to 20 students. The third offering in a three-part course sequence. Prereq: 15ENGL102. BoK: FA. Credit Level: U. Credit Hrs: 3.00

15ENGL217  
Creative Writing: Poetry  
Writing of poetry; examination and discussion in class of each student's work. Limited to 20 students. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL218  
Creative Writing: Poetry  
Writing of poetry; examination and discussion in class of each student's work. Limited to 20 students. The second offering in a three-part course sequence. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL219  
Creative Writing: Poetry  
Writing of poetry; examination and discussion in class of each student's work. Limited to 20 students. The third offering in a three-part course sequence. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL221  
World Literature  
A comparative study of ancient and modern classics of the western world as well as Third World literature. Each term will focus on a particular literary genre: tragedy, comedy, epic, and romance. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL222  
World Literature  
A comparative study of ancient and modern classics of the western world as well as Third World literature. Each term will focus on a particular literary genre: tragedy, comedy, epic, and romance. The second offering in a three-part course sequence. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL223  
World Literature  
A comparative study of ancient and modern classics of the western world as well as Third World literature. Each term will focus on a particular literary genre: tragedy, comedy, epic, and romance. The third offering in a three-part course sequence. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL227  
Creative Writing: Drama  
A study of the limits and potentialities of the dramatic medium. Students will exercise their talents within this framework. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

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H=University Honors course.  
English

15ENGL236
Contemporary World Literature: The Short Story
European and Asian short masterpieces expressing the anxieties and hopes of modern man; exploration of new literary techniques. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL237
Contemporary World Literature: Poetry
Sample the best poetry being written today as poets from America, Europe, and the Third World grapple with personal and political issues, and work to evolve new art forms for new audiences. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL244
Introduction to Language Science
Human language: what it is and how it works. The way we learn language, produce and understand it; language change and dialects; models of language. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL246
Themes in American Literature: Gender Roles
American authors’ treatments of the theme of male-female gender stereotyping. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL251
Outrageous Writings by Women
Women writers are attracted to certain literary forms scorned by conventional academic critics – Brown, Rubyfruit Jungle; Wittig, Les Guerilliers; Didion, Play It As It Lays; LeGuin, The Dispossessed; poetry by Judy Grahn; journals by May Sarton, Anaïs Nin. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL256
Mothers and Daughters in Literature
Women base a large part of their self image upon how they view their mothers. Symbols of motherhood powerfully affect culture. Concepts mothers have of their daughters will be explored. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL257
Our Lives: Twentieth-Century Women’s Autobiographies
Through five novels and a collection of diaries, this course will study the lives and achievements of well-known 20th century women from their teen years through old age. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL261
Fantasies of Children’s Literature
Classic and contemporary works of children’s fantasy. Focus is sources of appeal, recurrent issues. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL267
Topics in Film
An introduction for non-majors to the study of film as a mode of visual and verbal story-telling. Topics include significant genres (westerns, horror films, film noir), issues (representations of race and gender, film adaptations), or artists (Capra, Ford). Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL274
Censorship in Literature and the Arts
Censored literature and other works of art examined in light of arguments for and against censorship. Prereq: 15ENGL102. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL275
Ethnic Literatures of the United States
An introduction to the literature of selected ethnic groups (Black, Native American, Appalachian, Chinese, Jewish, Latino, etc.). Students will

English

15ENGL275
Ethnic Literatures of the United States
study ethnic cultures and literary forms. Prereq: 15ENGL102. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL289
Intermediate Composition
Using specific themes drawn from broad disciplinary fields, this course builds upon and enhances the writing and reading skills developed in English Composition. The General Education course emphasizes critical reading and writing, more advanced research and argumentative skills, and rhetorical understanding of discourse as it is used in different disciplines and discourse communities. Students must have earned 45 credit hours to register for the course. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL289H
Intermediate Composition
Using specific themes drawn from broad disciplinary fields, this course builds upon and enhances writing and reading skills developed in English Composition. The General Education course emphasizes critical reading and writing, more advanced research and argumentative skills, and rhetorical understanding of discourse as it is used in different disciplines and discourse communities. Designed for students accepted into the Honors Program, this version of English 289 has a special focus on experiential learning. Students must have earned 45 credit hours to register for the course. Prereq: 15ENGL102H. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15ENGL300
Survey of American Literature
A survey of American literature from Puritan and Colonial times to 1865. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL302
Survey of American Literature
A survey of American literature from 1865 to 1915. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL303
Survey of American Literature
A survey of American literature from 1915 to the present. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL305
Writing for English Majors
A workshop focused on the analytic writing expected of English majors. Examines what is a researchable question. Emphasis on formulating a position and providing effective, persuasive support, and revising for clarity coherence, and correctness. This course is primarily for majors in English. Prereq: 15ENGL300. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL310
American Fiction: 1860-1910
The early realists and naturalists; selections from Twain, James, Crane, and others. Prereq: 15ENGL300. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15ENGL311
Literature of American Colonies and the Early United States
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<th>Course Title</th>
<th>Credit Hrs</th>
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<td>15ENGL312</td>
<td>American Fiction: 1910-1950</td>
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<td>15ENGL313</td>
<td>The American Renaissance</td>
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<td>15ENGL317</td>
<td>Nineteenth-Century American Poets</td>
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<td>Twentieth-Century American Poetry</td>
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<td>15ENGL320</td>
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<td>15ENGL335</td>
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<td>15ENGL342</td>
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<td>15ENGL352</td>
<td>Feminist Critical Readings</td>
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**BoK (Breadth of Knowledge) Coding:**
- **DC:** Diversity & Culture
- **EC:** English composition
- **FA:** Fine Arts
- **HP:** Historical Perspectives
- **HU:** Humanities
- **LT:** Literature
- **NS:** Natural Sciences
- **QR:** Quantitative Reasoning
- **SE:** Social & Ethical Issues
- **SS:** Social Sciences
15ENGL356
Feminist Critical Readings
3.00

15ENGL357
Gender, Sexuality and Culture
Focuses on the political, cultural, familial production of sexualities and on the complex relations between gender and sexuality, including the way in which gender and sex regulate identity and how that regulation might be contested. BoK: SE., HU. Credit Level: U. Credit Hrs: 3.00

15ENGL358
Second Wave Feminisms
Analyzes and historicizes the multiple and interconnecting strands of feminist theory and praxis that constituted the second wave of feminism and their continuing impact on contemporary feminist identification, debates and movements. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15ENGL359
Introduction to Rhetoric and Writing
Introduction to the study of rhetoric, including classical and modern theories. Emphasis on the use of rhetorical principles in the written, visual, and digital texts of popular culture, mass media, and education. Goal is to develop students' critical understanding and use of rhetorical strategies in text production and reception. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL360
Discourse Communities
An introduction to the language conventions in such areas as journalism, law, business, the arts, the sciences, and the social sciences. We will examine not only the surface elements of these conventions but also the underlying values that they may embody and perpetuate. Prereq: 15ENGL102. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15ENGL368
Topics in Rhetoric and Professional Writing
Explores theoretical and practical issues in rhetoric and professional writing, such as ethics, environmental writing, project management, and intercultural communication. Prereq: 15ENGL102. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15ENGL370
Desktop and Online Publishing
This course introduces students to fundamental principles and techniques of designing and producing print and online documents. Prereq: 15ENGL102. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL376
Writing with Style
Students consider the relation of style to audience, purpose, and genre and experiment with different writing styles to refine and diversify their own writing. Prereq: 15ENGL102. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL377
Visual Rhetoric
Analyzes ways in which visual information and design are used to influence viewers' opinions, beliefs, attitudes, and behaviors (the art of rhetoric) with an added component of creating visually rhetorical texts. Prereq: 15ENGL102. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15ENGL378
Films of Alfred Hitchcock
An in depth look at the life and career of one of the greatest film directors of all time. Prereq: 15ENGL300. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15ENGL382
Gay and Lesbian Literature
An exploration of important themes (eg., childhood and growing up, coming out and finding community, families, oppression and resistance, perpetuation. Prereq: 15ENGL102. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15ENGL398
American Women Writers to 1900
Poems, plays, novels, short stories, and essays written by American women authors to 1900. Prereq: 15ENGL300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15ENGL398H
Faces of the Future: Challenges and Costs of Battered Youth
Designed for male and female students in all majors. This course employs fiction, films, essays, speakers, and experiential learning to examine the crisis of battered youth and organizational attempts at intervention. Included in the course is a required weekend service trip to an Eastern Kentucky non-profit residential facility for abused young people ages ten to eighteen. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15ENGL399H
Law, Literature, and Society
Examines the law, its origins, its representations in literature and popular culture, and its influence on how we perceive ourselves and society. Students will explore texts including literature, court documents, news articles, and television shows. Will (re)create laws, propose arguments on current hot topics, and present and decide cases to practice critical thinking, argumentation, and compromise. BoK: LT, SE. Credit Level: U. Credit Hrs: 3.00

15ENGL401
Seminar: American Literature
An examination in depth of a major author, historical period, genre, mode, topic, or theme in literature written in America. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
15ENGL402
Seminar: American Literature
An examination in depth of a major author, historical period, genre, mode topic, or theme in literature written in America. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL403
Seminar: American Literature
An examination in depth of a major author, historical period, genre, mode, topic, or theme in literature written in America. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL405
Mark Twain
Students read and discuss A Connecticut Yankee, Letters from the Earth, Puddn’head Wilson, The Adventures of Huckleberry Finn, and selected pieces by Samuel Clemens, in an attempt to understand both his artistic accomplishment and to contextualize his work within the artistic, philosophical, political, and literary movements of the 19th century in the United States. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL406
Thoreau and His Tradition
A study of the pastoral and philosophical backgrounds to Thoreau’s work as well as his influence on later writers. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL409
The City in African-American Literature
Examines the Black Urban Experience in 20th century fiction and explores how post-Harlem Renaissance writers conceive of the modern city. Includes service learning component. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL411
Advanced Creative Writing: Fiction
Theory and practice of contemporary fiction with seminar study of relevant contemporary materials and criticism of student work in class and conference. Limited to 20 students. Prereq: 15ENGL211, 15ENGL212. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL412
Advanced Creative Writing: Fiction
Theory and practice of contemporary fiction with seminar study of relevant contemporary materials and criticism of student work in class and conference. Limited to 20 students. Second offering in a two-part course sequence. Prereq: 15ENGL211, 15ENGL212. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL413
Advanced Creative Writing Fiction
Theory and practice of contemporary fiction with seminar study of relevant contemporary materials and criticism of student work in class and conference. The third offering in a three-part sequence. Prereq: 15ENGL211, 15ENGL212. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL414
Advanced Creative Writing: Poetry
A course in the theory and practice of contemporary poetry with seminar study of relevant contemporary materials and criticism of student work in class and conference. Limited to 20 students. Prereq: 15ENGL217, 15ENGL218. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL418
Advanced Creative Writing: Poetry
A course in the theory and practice of contemporary poetry with seminar study of relevant contemporary materials and criticism of student work in class and conference. Limited to 20 students. The second offering in a two-part course sequence. Prereq: 15ENGL217, 15ENGL218. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL419
Advanced Creative Writing: Poetry
Theory and practice of contemporary poetry with seminar study of relevant contemporary materials and criticism of student work in class and conference. The third offering in a three-part sequence. Prereq: 15ENGL217, 15ENGL218. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL421
Playwriting I
The fundamental elements of the playwriting process: plot, character, dialogue, setting, theme. Standard script form, marketing, production, rewriting. Previous writing experience or drama study highly desirable. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL422
Play Writing II
An intermediate class to further the craft of play writing, including: the development of an outline for a full length play script. Students will also examine critical essays on the subject of play writing and will become familiar with various contemporary playwrights. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL459
Hemingway
The works of Ernest Hemingway in their social, literary, and aesthetic contexts. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL460
Seminar: Twentieth-Century American Literature
An advanced seminar focusing on some aspect of twentieth-century American literature. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ENGL465
William Faulkner
Students read the major fictions of this great American author, including The Sound and the Fury, As I Lay Dying, Sanctuary, Light in August, Absalom, Absalom!, The Hamlet, and Go Down, Moses. Prereq: 15ENGL300. BoK: NA. Credit Level: U. Credit Hrs: 3.00
English

15ENGL500
Internship in Writing and Editing
On-the-job experience supervised by an academic adviser. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15ENGL501
Internship in Writing and Editing
On-the-job experience supervised by an academic adviser. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15ENGL580
Writing Cincinnati
A writing course about the history, people, and architecture of Cincinnati. Includes field research on some in-depth aspects of the city. Prereq: 15ENGL102. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL585
Screenwriting
Screenwriting is the art of telling stories in words and images. This class focuses on formats, character development, plot, and dialogue. Movies will be studied to illustrate genre, fixed and fluid characters, development of protagonist and antagonist, and other screen elements. Prereq: 15ENGL300. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL586
Screenwriting II
A continuation of the screenwriting workshop. Storytelling on screen, effective dialogue and character development, and understanding genres. Special emphasis on rethinking and revising, and preparing a script for an audience. Prereq: 15ENGL300. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL589
Rhetoric and Professional Writing Capstone
Applying what they have learned in the Rhetoric and Professional Writing track, English majors will collaborate with Professional Writing and Editing master's student to complete real projects for a client organization. Prerequisite of at least two advanced standing writing courses in the Rhetoric and Professional Writing track for English majors. Perm of Instructor. BoK: HU, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL590
Advanced Playwriting
This course is intended for students who have successfully completed a course in beginning playwriting or for students who have completed a playscript. Emphasis will be on the completion of a stageworthy work and on readying a work for submission to a theater for possible production. Prereq: 15ENGL300. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL591
Individual Work
A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15ENGL592
Individual Work
A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15ENGL593
Individual Work
A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

H=University Honors course.
Graduate Fiction Workshop

These fiction-writing workshops usually focus on short stories by class members, occasionally on novels in progress, with the aim of producing publishable work. Students who have been admitted to the graduate program in fiction writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL716

Literary Translation

A course in the theory and practice of literary translation, including workshops on individual translation projects in poetry and prose, discussion of theories and techniques of translation, and comparison of English translations of foreign works. Students should have basic proficiency in a foreign language; no previous experience with translation expected. Credit Level: G. Credit Hrs: 4.00

15ENGL717

Graduate Poetry Workshop

A poetry workshop, often supplemented by extensive reading in contemporary poetry, that emphasizes generating and revising poems, experimenting with poetic forms and techniques, and developing a voice. Students who have been admitted to the graduate program in poetry writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL718

Graduate Poetry Workshop

A poetry workshop, often supplemented by extensive reading in contemporary poetry, that emphasizes generating and revising poems, experimenting with poetic forms and techniques, and developing a voice. Students who have been admitted to the graduate program in poetry writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL719

Graduate Poetry Workshop

A poetry workshop, often supplemented by extensive reading which emphasizes the generation and revision of poetry. Students who have been admitted to the graduate program in poetry writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL723

The Literary Essay

Literary essays by (mostly) American writers of the last hundred years who have combined being fiction writers and essayists: Trilling, Mary McCarthy, Toni Morrison, Vladimir Nabokov, Ralph Ellison, Susan Sontag. The purpose is to distinguish (and see intersections) between the literary essay, essays on craft, and academic criticism. With a workshop component. Credit Level: G. Credit Hrs: 4.00

15ENGL728

Online Documentation

Introduces students to the principles and practices of designing online documentation. Credit Level: G. Credit Hrs: 4.00

15ENGL730

Verse-Writing Workshop

Workshop with the Elliston Poet-in-Residence. Enrollment in this workshop is only by permission of the instructor. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL642

English Syntax

The leading edge of language research begins with questions like these: how can we constantly create and understand new sentences--ones we have never heard before? How do languages allow us to construct meaning in sentences? What does it mean to say you know English? These questions have been asked and answered first in the area of syntax--the part of language that involves producing and interpreting sentences. Students look at the most recent of Noam Chomsky's models of syntax, the minimalist approach, as it applies to English sentences. This approach, and the text we will use to discover it, is simpler than earlier ones. Students should learn a great deal about the process of language, and quite a lot about the way English works. Perm of Instructor. BoK: HU, NS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ENGL703

Research and Bibliography for Professional Writing

Editing and Publishing

For MA students in the Professional Writing and Editing and Publishing tracks. Introduces students to research methods and as well as their underlying assumptions. Credit Level: G. Credit Hrs: 4.00

15ENGL705

MA in English Capstone Course

Readings are taken from a list of texts that survey literary genres from a variety of historical periods. The writing assignments ask students to show their breadth of knowledge through their ability to discuss relationships among the range of assigned texts. Required of all MA students. Credit Level: G. Credit Hrs: 4.00

15ENGL711

Graduate Fiction Workshop

These fiction-writing workshops usually focus on short stories by class members, occasionally on novels in progress, with the aim of producing publishable work. Students who have been admitted to the graduate program in fiction writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

15ENGL712

Graduate Fiction Workshop

These fiction-writing workshops usually focus on short stories by class members, occasionally on novels in progress, with the aim of producing publishable work. Students who have been admitted to the graduate program in fiction writing may take the course; others must receive permission from the instructor. Credit Level: G. Credit Hrs: 4.00

H--University Honors course.

15ENGL740
Rhetoric of Written Discourse
of research in written discourse. Credit Level: G. Credit Hrs: 4.00

15ENGL741
Rhetorics of Emotion
Starts with the premise that emotions are embodied and performed; they are things we do, rather than things we have. They therefore can be said to have a rhetoric, mediated by language, body, and culture. Goal is to develop a theoretical framework that allows us to position emotion as a category of analysis. Credit Level: G. Credit Hrs: 4.00

15ENGL743
Science and Medical Writing
Introduces students to conventions of science and medical writing, and engages them in critical analysis of these fields of discourse. Requirements include several kinds of writing assignments targeted toward print and electronic media. Credit Level: G. Credit Hrs: 4.00

15ENGL744
Principles and Practices in Desktop Publishing
Computer applications and important design principles used in common desktop publishing genres, such as brochures and newsletters. Credit Level: G. Credit Hrs: 4.00

15ENGL745
Principles and Practices in Web Design
Computer applications and important principles for web page design. Credit Level: G. Credit Hrs: 4.00

15ENGL750
Race Gender and Culture
Focuses on a short list of texts of the general literature of colonialism, slavery, diaspora and immigration, and reads them through the critical lenses of cultural studies; specifically, post-colonial theory, Afro-American ethnic theory and feminism, and psychoanalysis. Credit Level: G. Credit Hrs: 4.00

15ENGL752
Approaches to American Romanticism
Primarily an introduction to some of the major writers, the critical issues, and the main themes involved in American writing between 1810-1860. Among the authors who might be included are Poe, Hawthorne, Cooper, Melville, Emerson, Thoreau and Irving. Some lesser writers who were also influential and might therefore be studied are William Gilmore Simms, John Pendleton Kennedy and Robert Montgomery Bird. Genres could include or encompass prose non-fiction, fiction, and poetry. Credit Level: G. Credit Hrs: 4.00

15ENGL754
Approaches to American Realism
An examination of writings from the period after the Civil War to 1920, focusing on the literary historical terms realism and naturalism, though there are some readings that do not easily fit those designations. Credit Level: G. Credit Hrs: 4.00

15ENGL756
Approaches to 20th Century American Poetry
Selected poems of five or more 20th century American poets, along with selected criticism, with emphasis on the innovative techniques and approaches of the poets. Credit Level: G. Credit Hrs: 4.00

15ENGL760
American Women Writers: The Novel I
Focuses on the domestic and/or sentimental novel by 19th century African American women writers: its beginnings in the turn of the century seduction novel, its mid-century popularity, its use by African American women to criticize both slavery and post-bellum racism, its relationship to the sensation novel and to the Künstlerroman. Credit Level: G. Credit Hrs: 4.00

15ENGL777
Versification
This seminar examines versification and prosody from both a descriptive and historical perspective. We shall consider the various descriptive approaches to versification and prosody including the “classical” system of the 19th century, generative metrics, and more recent efforts to describe both metrical and non-metrical verse patterns; theories of prosody from the Renaissance to the present day. Credit Level: G. Credit Hrs: 4.00

15ENGL778
Narratology
An introduction to the study of narrative from a variety of critical and theoretical viewpoints. Theory is read alongside landmark works in the history of fictional technique. Credit Level: G. Credit Hrs: 4.00

15ENGL779
The Novel and Society in Modern Day America
The course examines classics--such as Absalom Absalom!, Uncle Tom's Children, Noon Wire, Slaughterhouse Five--that tell stories of crisis in modern U.S. history. Credit Level: G. Credit Hrs: 4.00

15ENGL781
Approaches to American Ethnic Literature
Theory and contemporary issues in the literature of African-American, Native American, Asian American and Chicano authors. Credit Level: G. Credit Hrs: 4.00

15ENGL783
Ethnic Women Writers
The themes, cultural forms, language, and historical context (especially the immigration laws) that shaped the work of African American, Asian American, Hispanic, Native American, and European immigrant women writers. How their works express themselves as individuals, and how they help maintain a sense of group identity. Credit Level: G. Credit Hrs: 4.00

15ENGL791
Contemporary American Fiction
A study of substantial novels, all written in the last 20 years, that represent various modes of realism and experimentalism. Credit Level: G. Credit Hrs: 4.00

15ENGL795
Professional Writing and Editing Capstone Course
Capstone course for the MA track in Professional Writing and Editing. Students apply important readings in the field to a real world writing and editing project. Each student's body of work in the course will be judged by a faculty committee. Students must earn a pass on this work in order to be eligible for the MA degree Credit Level: G. Credit Hrs: 4.00

15ENGL854
Problems in American Realism and Naturalism
An examination of a significant contemporary area of inquiry in the period of late 19th and 20th century fiction. It may focus on social, theoretical or textual matters in dispute. Credit Level: G. Credit Hrs: 4.00

15ENGL860
American Women Writers: The Novel II
Draws connections between the sentimental novel of the 19th century and contemporary novels by American women. Credit Level: G. Credit Hrs: 4.00

15ENGL865
Feminist Poetics
The new poetry by feminists from the 1970's through the 1990's addressing questions of genre, identity and identity politics, sexuality, race, literary and political traditions. Poems and prose by such writers as Adrienne Rich and Audre Lorde. Credit Level: G. Credit Hrs: 4.00
English

15ENGL866 Modern American Film and Literature
An examination of formal, thematic, and historical connections among texts in these media in the period from 1910-1950. Credit Level: G. Credit Hrs: 4.00

15ENGL867 Problems in Film Studies
Explores a significant category of film studies, such as national cinema, movie genres, significant directors or movements, intersections between film and social forces, or a theoretical debate about the making, function, or viewing of movies. Credit Level: G. Credit Hrs: 4.00

15ENGL892 Black Writers, Modernism & Postmodernism
An analysis of representative writing of the Harlem Renaissance by Richard Wright, Ralph Ellison, James Baldwin and Gwendolyn Brooks. Credit Level: G. Credit Hrs: 4.00

15ENGL895 The Production and Reception of Contemporary American Fiction
A study of several contemporary American novelists within the context of the publishing industry. Credit Level: G. Credit Hrs: 4.00

15ENGL990 M.A. Thesis
Formal recognition of work conducted to research and prepare the thesis. Credit Level: G. Credit Hrs: 1.00-15.00

15ENGL995 Teaching
Formal recognition of the teaching done by graduate Teaching Assistants. Perm of Department. Credit Level: G. Credit Hrs: 4.00

15ENGL996 Professional Practice
Formal recognition of work done by graduate students conducting projects under the terms of graduate Administrative/Research Assistantships. Perm of Department. Credit Level: G. Credit Hrs: 4.00

15ENGL997 Independent Readings
A course of supervised reading arranged on an individual basis. (Proposals required during preregistration for the subsequent quarter.) Perm of Department. Credit Level: G. Credit Hrs: 1.00-5.00

15ENGL998 Independent Study
A course of supervised reading arranged on an individual basis leading to a substantial paper. (Proposals required during preregistration for the subsequent quarter.) Perm of Department. Credit Level: G. Credit Hrs: 1.00-5.00

15ENGL999 Research
Formal recognition of work conducted to prepare critical paper, thesis, or dissertation. Perm of Department. Credit Level: G. Credit Hrs: 1.00-15.00

Entrepreneurship and Small Business Management

15ESBM131 The Basic Entrepreneur
Examines the motivational and psychological make-up of a successful entrepreneur. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ESBM132 Introduction to the New Business Venture
A review of all the opportunities in buying a business, Franchises, dealers, distributorships, licensing, multi-level and direct sales, coin-operated, direct mail/publishing, retail sales and 900 numbers. BoK: NA. Credit Level: U. Credit Hrs: 3.00

European Studies

15EUST101 Introduction to European Studies
An introduction to the European Studies certificate, with a goal of preparing students to develop a coherent program of courses in European studies suited to meet their needs and fit their interests. Includes European politics, culture, geography, and history. Emphasis on exploring the ways in which each of these disciplines approaches the topic of "Europe" as a diverse and complex entity. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15EUST201 Introduction to European Studies
An introduction to the European Studies certificate, with a goal of preparing students for the coherent program of courses in European studies. Course includes European politics, culture, geography, and history. Emphasis on exploring the ways in which each of these disciplines approaches the topic of "Europe" as a diverse and complex entity. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15EUST390 Capstone Seminar European Studies
Capstone seminar introducing students to the study of Europe in various disciplines. Required in the Junior-Senior year for students obtaining the European Studies Certificate. Prereq: 15EUST101. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15EUST710 European Studies Workshop & Seminar I
First quarter of a sequence of the European Studies Workshop and Seminar for graduate students. Topic to be determined by instructor. Credit Level: G. Credit Hrs: 3.00-6.00

15EUST711 European Studies Workshop & Seminar II
Second quarter of a sequence of the European Studies Workshop and Seminar for graduate students. Topic to be determined by instructor. Credit Level: G. Credit Hrs: 3.00-6.00

15EUST712 European Studies Workshop & Seminar III
Third quarter of a sequence of the European Studies Workshop and Seminar for graduate students. Topic to be determined by instructor. Credit Level: G. Credit Hrs: 3.00-6.00

Environmental Studies

15EVST101 Environmental Science I
Interdisciplinary introduction to basic ecological concepts; laws of thermodynamics, biogeochemical cycles; human impact upon biomes; economics and politics of pollution; risk assessment; the world population crisis. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST102 Environmental Science II
Interdisciplinary examination of water resources, use, and conservation; drinking water purification; wastewater treatment; air pollution sources and control; solid and hazardous waste; environmental law; global environmental problems. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST103 Environmental Science III
Interdisciplinary examination of endangered species, wildlife and wilderness; the energy crisis; perpetual, renewable, non-renewable energy resources; conservation, nuclear energy; pesticides; land-use planning; parks, refuges, wetlands; sustainable development; environmental ethics. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST125 Freshman Seminar: Environment
A freshman seminar focusing on current environmental issues and environmental problem-solving. The focal topic of the seminar will vary from year to year. Limited to freshmen. BoK: NS., QR. Credit Level: U.
Environmental Studies

15EVST125
Freshman Seminar: Environment
Credit Hrs: 3.00

15EVST395H
Human Dimensions of Global Climate Change
The goal of this course is to examine the human dimensions of climate change, the influences on climate and particularly the impacts on human societies (Developed to Indigenous Peoples). We will explore emerging technologies to conduct the course, focusing on the virtual world Second Life and Wiki/Blog spaces. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST397H
Environmental Challenges in Modern India
The emergence of modern India as an economic superpower, the world's largest democracy, and the second largest Muslim nation defies conventional understanding by Western norms. In the context of tremendous ongoing growth and even stronger positioning for future growth-the challenges of environmental degradation within India are severe. The objective of this course is to focus on environmental concerns while discussing the politics, identity, economy, education, youth culture, and future of modern India through critical review of selected readings. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST398H
Ecology of Infectious Diseases
Examines the ecological and evolutionary influences on the emergence and re-emergence of a variety of human infectious diseases across the globe. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

15EVST399H
Sustainable Development: History, Concept and Practice.
Traces sustainable development ideas from the 1950s to the present. Introduces ecological economics and its challenge to traditional thinking about growth and development. Examines different experiences with sustainable development strategies by organizations, low-income countries, selected high-income countries and states within the US. BoK: SE., SS. Credit Level: U. Credit Hrs: 3.00

15EVST400
Non-majors Environmental Internship
Internship for non-Environmental Studies majors providing professional experience in an environmental position under guidance and supervision of Environmental Studies. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15EVST401
Seminar on Environment
Seminar on current topics in environmental science and policy: research, approaches and problems. Topics vary. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15EVST425
Readings in Environmental Studies
Guided study of contemporary and/or historical readings on the environment. Perm of Instructor. BoK: SE. Credit Level: U. Credit Hrs: 1.00-6.00

15EVST475
Special Topics in Environment
In-depth interdisciplinary study of current research and approaches to a selected environmental topic. BoK: NA. Credit Level: U. Credit Hrs: 1.00 -5.00

15EVST500
Environmental Studies Internship
Professional experience in an environmental position under program guidance. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00 -12.00

Environmental Studies

15EVST501
Environmental Capstone
First quarter of a two quarter, team-taught capstone sequence designed to examine a contemporary environmental issue from an interdisciplinary perspective, requiring the application and integration of principles from the various fields that contribute to modern environmental problem-solving. The focal topic of the capstone is variable. For senior EVST majors. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

15EVST502
Environmental Capstone
Second quarter of a two quarter, team-taught capstone sequence designed to examine a contemporary environmental issue from an interdisciplinary perspective, requiring the application and integration of principles from the various fields that contribute to modern environmental problem-solving. The focal topic of the capstone is variable. For senior EVST majors. BoK: NS., QR. Credit Level: U. Credit Hrs: 4.00

15EVST525
Undergraduate Research in Environmental Studies
Supervised research experience in the environmental sciences. Variable credit set in consultation with research advisor, offered each quarter. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15EVST526
Undergraduate Research in Environmental Policy
Supervised research experience in environmental policy and related areas. Variable credit set in consultation with research advisor, offered each quarter. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15EVST600
Environmental Law and Policy
Examines the role of law and policy in the regulation, protection and management of natural resources and the environment. Provides an overview of the principal environmental laws at the federal and state level, regulatory policies and key judicial decisions in this area. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15EVST601
International Environmental Law & Policy
This course introduces the major principles, treaties and institutions that influence and shape international environmental law and policy, and provides students with a solid understanding of the background principles, the key institutions, the disparate parties, and the current debates that shape international environmental law and policy. BoK: SE., SS. Credit Level: U. G. Credit Hrs: 3.00

15EVST602
Global Biodiversity: Law & Policy
Seminar examining domestic and international policies and laws relating to biodiversity conservation and management. Addresses relevant laws and regulations (e.g., US Endangered Species Act), international conventions and treaties (e.g., Convention on Biological Diversity), and the key institutions (e.g., International Whaling Commission) involved in biodiversity protection. BoK: SE., SS. Credit Level: U. G. Credit Hrs: 3.00

15EVST610
Environmental Risk Analysis
Introductory course in risk analysis and assessment with applications to environmental and health issues. Develops knowledge of modern analytical tools and approaches used in addressing and managing environmental risks. BoK: NS., QR. Credit Level: U. G. Credit Hrs: 3.00

15EVST620
Conservation & Economic Development: Developing Countries
As nations of Africa, Asia and Latin America have gained independence they have attempted to combine economic development with environment protection in an effort to halt environmental degradation.
Environmental Studies

15EVST620  
Conservation & Economic Development: Developing Countries  
These efforts have ranged from community-based initiatives to National Environmental Action Plans. Course examines the lessons of these experiences and introduces the actors involved in international development and conservation. BoK: SE., SS. Credit Level: U, G. Credit Hrs: 3.00

15EVST626  
Ecological Modeling  
An advanced undergraduate/graduate lecture class providing an overview of the many types and ways in which models are used in ecology. Investigate and develop models at all levels of organization from global climate models to individual behavioral models. Cross-listed with BIOL 626. Prereq: 15BIOL303. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Family Studies

15FAMS205  
Intro to Family Studies  
Multi-disciplinary approach to the study of the family, introducing students to the many ways of analyzing and interpreting "family." Required course for FAMS students. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15FAMS405  
FAMS Internship  
Supervised professional experience in community agencies and organizations serving or studying families or family-related activities. Must be arranged with FAMS faculty prior to registration. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

15FAMS505  
FAMS Capstone  
Family Studies capstone is designed to enable FAMS seniors to integrate their multi-disciplinary coursework in the study of the family through portfolios and research activities. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Finance

15FIN281  
Personal Finance  
Planning and management of personal financial problems; personal finance plans, budgets. Credit and savings institutions in family financing; insurance, real estate, securities investments, estate planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

French

15FREN101  
Basic French I  
Basic French language and culture. First quarter in the 3 quarter sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15FREN102  
Basic French II  
Basic French language and culture. Second quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15FREN102H  
Basic French II Honors  
Honors section of Basic French 2. Prereq: 15FREN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15FREN103  
Basic French III  
Basic French language and culture. Third quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN102. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15FREN103H  
Basic French III Honors  
Honors section of Basic French 3. Basic French language and culture. Third quarter in the three-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15FREN111  
Extended Basic French 1  
Basic French language and culture. First quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15FREN112  
Extended Basic French 2  
Basic French language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN111. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15FREN113  
Extended Basic French 3  
Basic French language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN114  
Extended Basic French 4  
Basic French language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN113. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN115  
Extended Basic French 5  
Basic French language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN114. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN116  
Extended Basic French 6  
Basic French language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15FREN115. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15FREN180  
World Cultures-French Speaking I  
General education course on issues of the French-speaking world. Taught in English. Satisfies content area requirement in American Diversity/World Cultures. Does not count toward major or minor in French. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN181  
World Cultures -- French Speaking II  
Continuation of 15-012-180, but may be taken independently. Study of the French-speaking world outside of France. Taught in English. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN182  
 Traditions in French World Culture  
Survey of French cultural traditions. Topics vary. Taught in English. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15FREN184  
French Civilization  
French civilization (literature, culture, history, etc.) from medieval times to 17th century. Conducted in English. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15FREN185  
French Civilization  
French civilization (literature, culture, history, etc.) from 17th century to 1848. Conducted in English. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
French

15FREN186  
French Civilization  
French civilization (literature, culture, history, etc.) from 1848 to present. Conducted in English. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN214  
Intermediate Reading in French  
Emphasis on reading and writing grammar; culture. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN215  
Intermediate Reading in French  
Emphasis on reading and writing grammar; culture. The second offering in a three-part course sequence. Prereq.: 111-12-13 or appropriate placement test score. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN216  
Intermediate Reading in French  
Emphasis on reading and writing grammar; culture. The second offering in a three-part course sequence. Prereq.: 111-12-13 or appropriate placement test score. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN250  
Valentine House Conversational French  
Conversational French for Valentine House residents BoK: DC. Credit Level: U. Credit Hrs: 1.00

15FREN251  
Composition and Conversation  
This sequence uses a content-based cultural approach to the review of grammar and further development of reading, writing, speaking and listening skills. Materials introduce students to a variety of literary genres, contexts, functions and speech acts. Classroom focus is on small group activities, cooperative learning, discussion, debate and oral presentations. Students discuss, research and reflect upon daily living patterns, historical phenomena, political and economic situations and values. Readings include excerpts of works by contemporary and classical French and francophone writers. A process-approach to writing helps students improve their writing skills. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN252  
Composition and Conversation  
The second offering of a three-course sequence. This sequence uses a content-based cultural approach to the review of grammar and further development of reading, writing, speaking and listening skills. Materials introduce students to a variety of literary genres, contexts, functions and speech acts. Classroom focus is on small group activities, cooperative learning, discussion, debate and oral presentations. Students discuss, research and reflect upon daily living patterns, historical phenomena, political and economic situations and values. Readings include excerpts of works by contemporary and classical French and francophone writers. A process-approach to writing helps students improve their writing skills. Prereq: 15FREN251. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN253  
Composition and Conversation  
The third offering of a three-course sequence. This sequence uses a content-based cultural approach to the review of grammar and further development of reading, writing, speaking and listening skills. Materials introduce students to a variety of literary genres, contexts, functions and speech acts. Classroom focus is on small group activities, cooperative learning, discussion, debate and oral presentations. Students discuss, research and reflect upon daily living patterns, historical phenomena, political and economic situations and values. Readings include excerpts of works by contemporary and classical French and francophone writers. A process-approach to writing helps students improve their writing skills. Prereq: 15FREN252. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN271  
The French-Speaking World  
This course will provide an overview of the French-speaking world, beginning in France, traveling through Africa to the Caribbean and ending in North America. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN300  
Grammar & Composition  
An intermediate/advanced course in French grammar and composition. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN301  
Speaking in French about France/Francophone culture  
Emphasizes grammar and conversation, as well as French syntax and for the development of students’ speaking proficiency. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN302  
French Phonetics  
Designed to show how international French is pronounced and how to attain accuracy and fluency in pronunciation. Actual practice, both in specific contexts and in communication situations, forms the core of the class sessions. Prereq: 15FREN252. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15FREN310  
Introduction to Literature  
Systematic introduction to literary analysis. Selected texts of various genres (poetry, prose, narratives and theater). Conducted in French. Prereq: 15FREN252. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15FREN311  
Modern French Literature  

15FREN312  
The Francophone World  
An introduction to the literatures and cultures of the Francophone world. Taught in French Prereq: 15FREN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN313  
French Culture in Films  
An introduction to the culture of France through the study of French films. Taught in French. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN314  
France Today  
An introduction to the culture of contemporary France. Taught in French Prereq: 15FREN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN335  
Business French  
Composition, conversation, business correspondence, written and oral translation from and into French. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN336  
Business French  
Composition, conversation, business correspondence, written and oral translation from and into French. The second offering in a three-part course sequence. Prereq.: 106 or 116 or 216 or equiv. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN337  
Business French  
Composition, conversation, business correspondence, written and oral translation from and into French. The third offering in a three-part course sequence. Prereq.: 106 or 116 or 216 or equiv. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

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H=University Honors course.  
French

15FREN337

Business French
Composition, conversation, business correspondence, written and oral translation from and into French. The third offering in a three- part course sequence. Prereq.: 106 or 116 or 216 or equiv. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN341

Main Currents in Medieval French Literature
An introduction to important literary issues in Medieval French Literature. Prereq: 15FREN302. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15FREN342

Renaissance Literature
Survey of French poetry and prose from the Renaissance, 1500-1600. Prereq: 15FREN302. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15FREN343

Main Currents in Seventeenth-Century French Literature
An introduction to important literary issues in Seventeenth Century French Literature. Prereq: 15FREN302. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15FREN346

Twentieth-Century Literature
Survey of 20th-century French literature, including short fiction, theater and poetry. Prereq: 15FREN302. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15FREN367

20th Century French Women Writers
A study of themes and literary techniques in the works of major twentieth century authors; includes works by Colette, de Beauvoir, and Duras. (Conducted in English.) Prereq: 15FREN253. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15FREN371

French Civilization I
Outstanding contributions French has made to Western civilization in the arts, philosophy, political thought, and the art of living. From Antiquity through the Renaissance. Conducted in English. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN372

French Civilization II
From the 17th century through the Revolution of 1848. Conducted in English. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN373

French Civilization III
From the Second Empire to the present. Conducted in English. Prereq: 15FREN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN383

Francophone Culture: L'Afrique
Literature, culture, and civilization of French-Speaking Africa. Close readings of depictions and analyses of traditional, colonial and contemporary Africa. Conducted in French. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN384

Francophone Culture Quebec and the Antilles
Literature, culture and civilization of Quebec and French-speaking Canada, and the Antilles. Conducted in French. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN385

Caribbean Francophone Literature
An introduction to the Francophone literature of the Caribbean. Taught in French Prereq: 15FREN253. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15FREN391

Paris Today
A cultural of Paris with emphasis upon the contemporary forms of art, architecture and institutions evolved from the past. Given in English with French phrases. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN396

Tradition, Struggle for Independence and Gender Roles
This course examines how novels, essays and films by North and West African artists depict, define and problematize women's and men's roles, concerns and powers. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN396H

Tradition, Struggle for Independence and Gender Roles in North & West African Literature
This course examines a selection of works by French-speaking North African and African writers and film directors who raise the difficult issue of gender roles & expectations in their respective contemporary societies. We will identify and examine gender norms as represented in the works of eight prominent writers from the Maghreb (Morocco, Algeria and Tunisia) and West Africa (Senegal and Cameroon, especially) and two film makers (from Italy and Mali respectively). Prereq: 15ENGL341, 15ENGB300. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15FREN397

Fantasy, Myth and Legend in Medieval Literature
Medieval fantasy, myth and legend. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15FREN399

Literature, Science and Society in Enlightenment France
Study of French Enlightenment literary texts in which science is central. (Honors) BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15FREN424

Advanced Grammar & Composition
An advanced course on French grammar and composition. Prereq: 15FREN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15FREN425

Advanced French Conversation
A conversation workshop that develops speaking skills and more sophisticated use of oral French. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN426

Advanced French Conversation II
A continuation of Advanced French Conversation 425. Development of more sophisticated forms of conversational French; vocabulary building. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN441

Topics I
Study of specific texts, authors, genres, and issues in the French speaking world. Examples of topics: L'utopie au XVIIe siecle, Moliere, Camus et Sartre. Taught in French. Prereq: 15FREN343. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN442

Topics II
Study of specific texts, authors, genres and issues in the French-speaking world. Taught in French. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN443

Topics in French
Study of specific texts, authors, genres and issues in the French speaking world. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15FREN468

Contemporary Paris
Interdisciplinary seminar exploring the city of Paris from the 19th century to the present. Study of literary, cultural and artistic materials
French

15FREN468
Contemporary Paris
as required reading. Original essay of each student will focus on an aspect of Paris today. Taught in English BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15FREN481
French Capstone
As a General Education capstone course, this allows students to complete an independent project in conjunction with their work in another 400-level course. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15FREN500
Service Learning
A supervised learning experience based in service to the French speaking community in the Cincinnati area. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 1.00-3.00

15FREN501
Business French
Composition, conversation, business correspondence, written and oral translation from and into French. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN502
Business French
Composition, conversation, business correspondence, written and oral translation from and into French. The second offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN503
Business French
Composition, conversation, business correspondence, written and oral translation from and into French. The third offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN515
Paris Today
A cultural tour of Paris with emphasis on the contemporary forms of art, architecture, and institutions evolved from the past. Students participate in an organized trip to Paris. This is not a class taught on the UC campus. Instructor permission required. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN516
Study Tour Canada
A tour of one or more francophone Canadian cities with emphasis on culture, art, architecture and institutions. Students participate in an organized trip. This is not a class taught on the UC campus. Instructor permission required Perm of Instructor. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN517
Study Tour France
A tour of one or more French cities with emphasis on culture, art, architecture and institutions. Students participate in an organized trip. This is not a class taught on the UC campus. Instructor permission required Perm of Instructor. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15FREN525
Advanced French Conversation
A conversation workshop that develops speaking skills and more sophisticated use of oral French. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15FREN550
French Study Abroad
For students participating in an established exchange program in the

H=University Honors course.
French

15FREN593
Independent Study
Level: U, G. Credit Hrs: 1.00-15.00

15FREN751
Twentieth-Century French Literature
This survey treats major works of prose, theatre, & poetry by reading authors such as Sartre, Camus, Ionesco, Beckett, Butor, Apollinaire, Valery & Prevert. In addition to some complete works, an anthology will be used. Given in French. Open to graduating seniors. BoK: NA.
Credit Level: G, U. Credit Hrs: 4.00

15FREN701
French Language Teaching Practicum
Practical issues in the French language classroom. Prereq: 15RLL750.
Credit Level: G. Credit Hrs: 1.00

15FREN702
French Language Teaching Practicum
Practical issues in the French language classroom. Prereq: 15RLL750.
Credit Level: G. Credit Hrs: 1.00

15FREN703
French Language Teaching Practicum
Practical issues in the French language classroom. Prereq: 15RLL750.
Credit Level: G. Credit Hrs: 1.00

15FREN710
The Medieval Theater
A survey of the major forms of medieval theater, both religious and popular. Credit Level: G. Credit Hrs: 4.00

15FREN711
Topics in 16th-Century French Literature
A review of major works. Rabelais, Ronsard, Du Bellay, Montaigne.
Credit Level: G. Credit Hrs: 4.00

15FREN721
French Revolution and Napoleon

15FREN723
Seventeenth-century French Literature: Textual Analysis
Training in "Explication of Text" through a survey of the Classical Period in French literature. Credit Level: G. Credit Hrs: 4.00

15FREN725
Fiction Narrative au 17e siēcle
A study of early French novels from L'Astree (1607-27) to La Princesse de Cleves (1678). Emphasis on themes and ideas as well as genre criticism and (structuralist) narratology. Credit Level: G. Credit Hrs: 4.00

15FREN727
Argent, Plaisir, et Pouvoir
Following in the steps of the early Spanish novel, Sorel's histoire comique de francion (1623) brought the themes of money and power to the foreground of 17th-century French literature. In various ways, writers of fiction, drama, fables, moral sentences or treatises, problematized the relationships between wealth, power and pleasure. These thoughts were to lay the foundation for 18th-century theories about banking, lending, luxury. Credit Level: G. Credit Hrs: 4.00

15FREN730
Eighteenth-Century French Literature
Representative novels of the 18th century. Credit Level: G. Credit Hrs: 4.00

15FREN731
Survey 18th Century
SURVEY 18TH CENT Credit Level: G. Credit Hrs: 4.00

French

15FREN732
Voltaire and the Eighteenth Century
Survey of Voltaire's works - plays, poetry, history, stories - and introduction to eighteenth-century France's literature and culture. Credit Level: G. Credit Hrs: 4.00

15FREN733
Eighteenth-Century Theater
4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN734
Eighteenth-Century Novel
An introduction to the novels of 18th-century France. Credit Level: G. Credit Hrs: 4.00

15FREN735
Radical Enlightenment
A study of the philosophies of 18th-century France. Credit Level: G. Credit Hrs: 4.00

15FREN740
PARNASSIAN POETRY
A survey of the verse between the Romantic and Symbolist periods. Credit Level: G. Credit Hrs: 4.00

15FREN741
Nineteenth-Century French Novel I
19TH CENTURY FRENCH NOVEL Credit Level: G. Credit Hrs: 3.00-4.00

15FREN742
Nineteenth-Century Novel II
A survey of major works from Balzac to Zola, Romantic-Realism to Naturalism, with emphasis on archetype, myth, and phenomenology. Given in French. Credit Level: G. Credit Hrs: 4.00

15FREN743
Nineteenth-Century Lyric Poetry
4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN744
Nineteenth-Century Short Story
4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN749
Nineteenth-Century Theater
4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN750
Nineteenth-Century Short Story
Study of generative theory, narrative technique, and period style in selected short prose. Credit Level: G. Credit Hrs: 4.00

15FREN752
Twentieth-Century Avant-Garde Theatre
A survey of modern theatre in France (Jarry, Apollinaire, Camus, Tardieu, Ionesco, Beckett and Genet). The break with traditional humanism through the absurd, existential anguish, and the deconstruction of language and material reality. Credit Level: G. Credit Hrs: 4.00

15FREN753
Twentieth-Century Poetry
4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN754
Modern French Poetry: Baudelaire to 1950s
The course will contain poems from 1850 to 1950. This century will see the waning of Romanticism as Baudelaire brings poetry to the modern world. We see Rimbaud's fractured verse, symbolism, and Valery's synthesis. Movements in the 20th century are surrealism and personalism. Some critical work the 20th century are surrealism and personalism. About poetry will also be used. Texts: Brooms and Chesters, Appreciation of Modern Poetry, Anthology of Modern French Poets.

H=University Honors course.
French

15FREN754  
Modem French Poetry: Baudelaire to 1950s  
Poetry. Credit Level: G. Credit Hrs: 4.00

15FREN755  
INTRODUCTION TO FRANCOPHONE LITERATURE  
A survey of works by leading Francophone writers, focusing on African,  
Islamic, and French cultural contexts. Credit Level: G. Credit Hrs: 4.00

15FREN756  
Traditions to Modernity in Francophone Literature  
A study of gender roles and communal spaces in the Francophone  
literature of sub-Saharan Africa. Credit Level: G. Credit Hrs: 4.00

15FREN757  
Apollinaire and l'Esprit Nouveau  
Apollinaire studied in his role as poet-impresario in a synthesis of the  
arts just before World War I. Given in French. Credit Level: G. Credit  
Hrs: 4.00

15FREN758  
Georges Perec  
An introduction to Perec's experiments and explorations as the relation  
between gaming and reality in select writings. Credit Level: G. Credit  
Hrs: 4.00

15FREN759  
French Caribbean Literature: Les Antilles  
A graduate survey of contemporary francophone literature of the  
Antilles emphasizing women authors and creole identity. Given in  
French. Open to seniors. Credit Level: G. Credit Hrs: 4.00

15FREN760  
Short Fict by Women  
SHORTFICT BY WOMEN Credit Level: G. Credit Hrs: 4.00

15FREN763  
The History of French Literature  
An introduction to research skills and electronic resources through an  
analysis of the organizing concepts in French literature. Credit Level: G.  
Credit Hrs: 4.00

15FREN768  
French Literary History  
A survey of the major literary movements, genres, and themes in  
French literature from the Middle Ages to modern times, covering  
poetry, drama, and narrative. Credit Level: G. Credit Hrs: 4.00

15FREN769  
Introduction to Modern French Culture  
Survey of cultural studies from a feminist perspective - major museums,  
Impressionism and Cubism, consumer culture, women's magazines.  
Course packet. Given in French. Credit Level: G. Credit Hrs: 4.00

15FREN770  
Introduction to French Civilization  
The theory of French civilization in its relation to the history of literature,  
research methods and teaching. Readings from historical works and  
literacy selections on Masters reading list. In French. Credit Level: G.  
Credit Hrs: 4.00

15FREN771  
French Civilization I  
From Antiquity through the Renaissance. Conducted in French.  
Satisfies French Civilization requirement of candidates for MA degree in  
French Language and Civilization when followed by 772-3. Credit Level: G.  
Credit Hrs: 4.00

15FREN772  
French Civilization II  
From the 17th century through the Revolution of 1848. Credit Level: G.  
Credit Hrs: 4.00

French

15FREN773  
French Civilization III  
From the Second Empire to the present. Credit Level: G. Credit Hrs:  
4.00

15FREN774  
French Civilization Trnd.  
FRENCH CIV TRND Credit Level: G. Credit Hrs: 4.00

15FREN779  
Professional Development and Pedagogy  
Learning how to conduct a job search and trends in pedagogy. Multi-  
media. Practical writing assignments and interview skills. Open to  
seniors and to teachers in Spanish, German, English. Credit Level: G.  
Credit Hrs: 4.00

15FREN780  
Master's Thesis Research  
Credit according to the amount of work elected. Credit Level: G. Credit  
Hrs: 1.00-15.00

15FREN781  
Lit Francophone  
LIT FRANCOPHONE Credit Level: G. Credit Hrs: 4.00

15FREN783  
Special Topics in French Literature  
A special seminar devoted to a particular issue germane to French  
literature. Topics will vary. May be repeated for a total of 12.0 credits.  
Credit Level: G. Credit Hrs: 4.00

15FREN784  
Special Topics in Francophone Literature  
A special seminar devoted to a particular issue germane to French  
Francophone literature. Topics will vary. Credit Level: G. Credit Hrs:  
4.00

15FREN785  
French Culture: Films  
Contemporary French and Francophone cultures explored through the  
study of classics such as Hiroshima Mon Amour, La Bataille d'Alger, Au  
Revoir les Enfants, Hyenes, Conted'tiver. Credit Level: G. Credit Hrs:  
3.00-4.00

15FREN786  
African Feminisms  
An investigation of the various forms of Feminism in Francophone  
African Literature. Taught in French Credit Level: G. Credit Hrs: 4.00

15FREN787  
Litterature du Maghreb: Seminaire  
This seminar is focused on the analysis of novels, short stories and  
theses by six major North- African writers: Albert Memmi, Frantz  
Fanon, Assia Djebar, Driss Hriabbi, Tahar Ben Jelloun and Abdelkebir  
Khatibi. Special areas of concentration will include the (mis)use and  
improvements these internationally-acclaimed creative writers have  
introduced into the representation of colonialism and the post-colonial  
era; the relationship between the various narrators and their real or  
induced readers. We will also explore the treatment of recurring themes  
and issues such as the complexity of the relationships between the  
North African and the European protagonists, the complexity of the  
relationships between the North African and the European protagonists,  
the educated and less-educated, the successful and those merely  
surviving. Credit Level: G. Credit Hrs: 4.00

15FREN788  
French Civilization Trnd.  
FRENCH CIV TRND Credit Level: G. Credit Hrs: 4.00

H--University Honors course.
French

15FREN790
Racine et la Critique
An in-depth study of Racine's plays. We will especially locate and examine recurrent patterns, issues and metaphors, using Mauron's, Goldmann's and Barthes's approaches. We will analyze whether and how we can speak of Racine's subjective voice. Credit Level: G. Credit Hrs: 4.00

15FREN791
Lettres VolOes
An investigation of the motif of the Stolen Letter and its implications in French literature. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15FREN799
Discours Amoureux
An investigation of the discourse on love and its implications in French literature. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15FREN800
Translation Workshop
A workshop devoted to translating one text or the work of one author from French to English. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15FREN805
Reading Old French
Intensive practice in Old French. Credit Level: G. Credit Hrs: 4.00

15FREN806
Topics: Satire in Medieval France
A survey of diverse forms of satire -- contes, falliaux, farces, sätties with emphasis on the Roman de la rose and Villon's Testament. Modern French versions of all texts. Given in French. Credit Level: G. Credit Hrs: 4.00

15FREN807
Topics in Medieval Literature
Topics in medieval literature. Credit Level: G. Credit Hrs: 4.00

15FREN809
Med Romance
Med. romance. Credit Level: G. Credit Hrs: 4.00

15FREN826
Les Moralistes
LES MORALISTES Credit Level: G. Credit Hrs: 4.00

15FREN830
18th Century Novel I
18TH-CENT NOVEL I Credit Level: G. Credit Hrs: 4.00

15FREN835
The Philosophes of Eighteenth-Century France
This course treats literary works by the french philosophes. Readings will include selections from Voltaire, Montesquieu, Diderot and Rousseau, and will be in french. Credit Level: G. Credit Hrs: 4.00

15FREN844
Parnassian Poetry
Study and research on the poetry of Gautier, de Lisle and Heredia. Requirements include a weekly commentary, an oral presentation and a final paper. Given in French. Credit Level: G. Credit Hrs: 4.00

15FREN846
Seminar: Sand
4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15FREN849
Orientalism and Exchange in 19th Century French Literature
This course will look at images of the Orient in 19th century French literature from aesthetic, political and commercial perspectives. Readings (in French) will include works by Loti, Bataille and Goux. Credit Level: G. Credit Hrs: 4.00

French

15FREN853
Seminar: Baudelaire
The course is offered in French for PhD and MA graduate students. It requires a close textual analysis of the poems in Les Fleurs du Mal, a weekly critique, and a final research paper. Credit Level: G. Credit Hrs: 4.00

15FREN855
Seminar: Flaubert
Study and research of major novels of Flaubert. Requirements to include weekly commentaries, an oral presentation and a final paper. Given in French for M.A. and Ph.D. students. Credit Level: G. Credit Hrs: 4.00

15FREN857
Topics in 20th Century French Literature
This seminar selects from a variety of schools or issues with 20th century French literature, such as "Surrealism" or "Critical Currents." Conducted in French Credit Level: G. Credit Hrs: 4.00

15FREN863
Baudelaire
Seminar on Baudelaire's Les Fleurs du Mal with emphasis on Textual Analysis using the approaches of psychology and philosophy. Weekly critiques an oral presentation, and a final paper. Given in French Credit Level: G. Credit Hrs: 4.00

15FREN870
Qu'est-ce que la Francophonie?
The complex and multifaceted aspects of Francophonie. Through various readings of texts by African, Caribbean and Canadian francophone writers, an examination of the historical, institutional, literary and philosophical impact of Francophonie. Credit Level: G. Credit Hrs: 4.00

15FREN871
Canadian Francophone Literature
A seminar in the francophone literature of Canada with attention to both historical and contemporary issues. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15FREN872
Africa Today
An introduction to the current state of Contemporary Africa including political, geographical, economic and cultural perspectives with special attention to arts and letters. Credit Level: G. Credit Hrs: 4.00

15FREN873
African Cultural Studies
A focussed study of a variety of aspects of African cultural life including music, dance, theatre, film poetry and narrative. Credit Level: G. Credit Hrs: 4.00

15FREN883
Gender in French Literature
Explains how certain literary texts challenge gender, literary and social notions of the time. This is a repeatable course that will focus on different periods during different quarters. Credit Level: G. Credit Hrs: 4.00-16.00

15FREN884
Gender Francophonie
Explains how certain literary texts challenge gender, literary and social notions of the time. This is a repeatable course that will focus on different periods during different quarters. Credit Level: G. Credit Hrs: 4.00-16.00

15FREN895
Poetics and Politics in French Literature
A seminar in the interaction, interference and influence of poetics and politics in French literature. Credit Level: G. Credit Hrs: 4.00-8.00
French

15FREN896
Poetics and Politics in Francophone Literature
A seminar in the interaction, interference and influence of poetics and politics in Francophone literature. Credit Level: G. Credit Hrs: 4.00-8.00

15FREN897
Reading French for Graduate Students I
A sequence of three courses designed to prepare graduate students to read technical/professional materials in French. Credit Level: G. Credit Hrs: 4.00

15FREN898
Reading French for Graduate Students II
A sequence of three courses designed to prepare graduate students to read technical/professional materials in French. Prereq: 15FREN897. Credit Level: G. Credit Hrs: 4.00

15FREN899
Reading French for Graduate Students III
A sequence of three courses designed to prepare graduate students to read technical/professional materials in French. Prereq: 15FREN897, 15FREN898. Credit Level: G. Credit Hrs: 4.00

15FREN900
Graduate Teaching Internship in French
The Graduate Teaching Internship offers doctoral students an opportunity to teach French majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15FREN901
Graduate Teaching Internship in German
The Graduate Teaching Internship offers doctoral students an opportunity to teach German majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15FREN902
Graduate Teaching Internship in French
The Graduate Teaching Internship offers doctoral students an opportunity to teach French majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15FREN906
Independent Study
Previous written approval of instructor and graduate adviser. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-4.00

15FREN907
Independent Study
See 15-012-906. Credit Level: G. Credit Hrs: 1.00-4.00

15FREN908
Independent Study
See 15-012-906. Credit Level: G. Credit Hrs: 1.00-4.00

15FREN910
Seminars: Medieval Literature
An in-depth study of a major work or author, such as Chr tien de Troyes, Christine de Pizan, or Le roman de la rose. Credit Level: G. Credit Hrs: 4.00

15FREN919
Professional Development
PROF DEVELOPMENT Credit Level: G. Credit Hrs: 4.00

15FREN926
Montaigne Seminar
A close reading of Montaigne's Essays in the context of the French Renaissance, the religious wars of the sixteenth century, humanism, and autobiographical literature. Given in French. Requirements: an oral presentation and a final paper. Credit Level: G. Credit Hrs: 4.00

15FREN927
Seminars: Rabelais
Analysis of major selections within the context of humanism using eclectic methodology. In French. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
15FSEM104
German Culture
and historical works, with an emphasis on how to approach different
genres. BoK: DC., HP. Credit Level: U. Credit Hrs: 1.00-4.00

15FSEM105
Introduction to Film Studies
This course meets three hours a week with German 189 (15-GRMN-
189 001), which is open to students at all levels. A fourth hour is open
only to first year students and is part of the first year experience. The
course thus combines lectures and seminar-style discussions. This
course offers an introduction to methods and issues of film studies. It
introduces student to the techniques of film analysis, covering the
social, cultural, economic, technological and aesthetic issues
associated with motion pictures. It also introduces students to film
history, focusing on important films and major film movements from
1895 to the present. The fourth hour will be devoted to detailed
discussions of specific films and works of film theory. BoK: HU. Credit
Level: U. Credit Hrs: 1.00-4.00

15FSEM106
Moving On: The High School in Film, Fiction, and the Search for
Young Adult Identity
This seminar will focus on the transition from adolescence to young
adulthood and on the role the American education's social structure
plays in that shift. Content will be composed primarily of literature and
films that depict peer's families', teachers and the media's roles in
identity formation. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM107
The Aggression Riddle
Interdisciplinary seminar exploring the issues surrounding male/female
aggression; the extent to which culture and biology shape aggressive
behaviors; the differing ways in which the sciences and humanities
depict aggressive behavior. Includes readings from science and social
science as well as analysis of characters and themes in selected films
and fiction. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM108
Thinking Through Photography
How do photographs convey meaning? How do photographic images
help to shape our sense of ourselves and others, the past and the world
we live in? How does photography relate to writing? These questions
are explored through consideration of photographers' work and through
readings that range from the historical to the literary, the theoretical to
the autobiographical. Students respond to this material as writers,
researchers and producers or compilers of photographic images,
ultimately creating photo-essays that engage ideas and issues raised
over the quarter. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM109
Seeing Art Through Writing
Examines how writers have theorized the act of seeing visual art,
including but not limited to painting, sculpture, photography, video,
and installation; how viewing art allows us to see that which is ordinarily not
seen as art -- that is, the everyday world around us -- in different,
thought-provoking ways; how critical and theoretical writings on art
change the way we see artworks. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15FSEM110
Children's Literature and Film
Traces the history of children's literature and film alongside the history
of concepts of childhood from the Grimms' first collection of fairy tales in
early 19th century to recent novels by J.K. Rowling and Lemony
Snicket. Concentrates on classics of children's literature and discusses
them alongside modern adaptations of these stories to illustrate how
concepts of children's literature and concepts of childhood have
interacted over the centuries. The central questions that the course
addresses include: how does literature attempt to mold children into
adults? How have conceptions of childhood changed over time and
how have they differed among cultures? What is the status of children's

H--University Honors course.
Freshman Seminar

15FSEM116
The Mass Media and Presidential Politics
Examines the constantly changing intersections between mass media and politics. Historical campaigns and elections will serve as parallels to understanding the events in the current election. BoK: SS., HP. Credit Level: U. Credit Hrs: 3.00

15FSEM150
Freshman Seminar: Exploring Time
An exploration in seminar form of the perception, properties and philosophy of time, based on readings and wide-ranging class discussion. Subjects considered will include the ancestral (cyclic), biblical(linear), geologic(sequential or absolute and “deep”), historic(regular and predictable), technical(exact), relativistic (mutable in space), energetic(entropic), eternal (timeless), and theoretical(non-existent) aspects of time. BoK: HP., NS. Credit Level: U. Credit Hrs: 3.00

Geography

15GEOG101
Climatology: Introduction to Environmental Geography I
For majors and non-majors; fulfills the Natural Science requirement when taken with Geog. 111, 112, 113, or with an elementary course in another science. Weather and climate: Elements of meteorology including temperature, precipitation, pressure cells, and air masses. Global climatic patterns, controls, and mechanisms of climate change examined. Transfer Module. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

15GEOG102
Geomorphology: Introduction to Environmental Geography II
Landforms: Processes of formation and their significance, studied through maps and diagrams. Transfer Module. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

15GEOG103
Biogeography: Introduction to Environmental Geography III
The environment: soil forming processes and plant geography, man's impact on the biosphere. Transfer Module. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

15GEOG104
Introduction to Human Geography
Uses population distribution to demonstrate how geography as a social science defines and answers questions. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15GEOG104H
Human Geography Honors
Honors version of 15-041-104. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15GEOG105
Introduction to Human Geography
Introduction to geographic models used to describe, explain, and interpret political and cultural diversity. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15GEOG105H
Honors Human Geography
Honors version of 15-GEOG 105 Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15GEOG106
Introduction to Human Geography
Introduction to different geographic models used to describe, explain, and interpret economic and urban diversity. Not open to students who have had 30-041-105. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG106H
Honors Human Geography
Honors version of 15-041-106. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

H-University Honors course.
Geography

15GEOG121
World Regional Geography I
Geographic perspectives on the problems of the developing world. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG122
World Regional Geography II
Geographic perspectives on the problems of the developed world. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG123
AMERICAS: NAFTA NATIONS
An analysis of the major regions comprising North America, the NAFTA nations; the physical geography, population trends, economic and cultural aspects of the U.S., Canada, and Mexico. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG123H
World Regional Honors
Honors section of 15-041-123. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG124
World Regional Geography: Europe
The physical environment and cultural structure of the continent. Rise of the contemporary political economy of Europe. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG124H
Honors World Regional Geography: Europe
Honors version of 15-041-124. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG125
World Regional Geography: Africa
Overview of landscapes and societies of the second largest continent. Political and historical geography of the 20th century to understand regional patterns. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG125H
Honors World Regional Geography: Africa
Honors version of 15-041-125. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG126
World Regional Geography: Asia
Western and Asian definitions and perceptions used to describe and analyze problems of economic and social development in Asia. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG126H
Honors World Regional Geography: Asia
Honors version of 15-041-126. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG130
Great Earth Debates
Major contemporary philosophical and political debates concerning earth and man with emphasis on physical geography and environmental sciences. Specific topics and debates (e.g. global warming vs. climate change) varies according to current human and environmental issues and world events. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG150
Prin Human Geog

15GEOG151
Prin Human Geog
Spatial perspectives on patterns of cultural, economic, political and urban diversity. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG171
Freshman Seminar: The Skeptical Environment
A close and critical review of Lomborg's The Skeptical Environmentalist, a book that challenges much of the veracity behind "bad" environmental news. First the issues of logical fallacies and complete explanations will be followed by an analysis of the author's methods of data selection and evaluation and by popular and professional reviews of the book. Debate over who is a scientist and who has the right and responsibility to speak for science will be included. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG172
Supersized: Geographical Implications of Corporate Fast Food
Uses Eric Schlosser's Fast Food Nation: The Dark Side Of The All-American Meal as a springboard to launch into a multi-disciplinary introduction to the study of globalization, corporate industrialization, suburbanization, migration, and politics. Restricted to Freshman. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15GEOG173
Freshman Seminar: Legacies and Landscapes of the Yucatan
This freshman seminar/field trip is structured to take students through “space and time” from 300 AD to contemporary times. The primary theme is changes in the landscape or the “sequence occupancy” of the region. Students will meet once a week in preparation for the winter break field trip to the Yucatan. The trip will explore Mayan archaeological sites from Uxmal (300 AD). Ek Balam, to Chichen Itza (1100 AD). The Colonial era will be highlighted with tours through Merida (1545), Ixmal, a salt plant operational since the 1700s, and a hacienda. Contemprary changes of the region are viewed with visits to an ejido, a henequen plant, a US manufacturing plant and experiences with the pros and cons of tourism - a government planned resort on the Caribbean (Cancun). The physical-environmental geography of the region will be introduced with an opportunity to swim in a Karst cave, visit a large flamingo sanctuary, and hike through a community-initiated nature preserve in Quintana Roo. Students also have free time for self-exploration, an important component of the educational experience. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG174
Freshman Seminar: A Year Without "Made in China"
Seminar will explore the impact of globalization on the United States at the personal and national levels by analyzing China-USA trade patterns and relations. Will use Sara Bongjorni's 2007 book A Year Without "Made in China". BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG175
Freshman Seminar: Mapping Climate Change and its Solutions with GIS, Aircraft and Satellites
Students will map the causes and solutions to global climate change with GIS software, aircraft and satellites. This course focuses on finding the best locations and methods to reduce global warming in a user-friendly, hands-on manner. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15GEOG201
Geography of the United States and Canada
Topical and regional analysis of North America stressing current resource use, location patterns, population trends, development, and cultural regions. Offered alt. yrs. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG203
Greater Cincinnati and the Tri-State
The changing face of the city, traced over two hundred years. What to preserve, what to demolish, where to rebuild, where to grow? BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG203H
Greater Cincinnati and the Tri-State
This course follows the changing face of the city, traced over two hundred years. It asks the questions: what to preserve? what to

H=University Honors course.
Geography

15GEOG203H Greater Cincinnati and the Tri-State
Demolish, where to rebuild, where to grow? BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG211 Geography of Latin America
Regional analysis of Central and South America; Andean and Amazonian environmental barriers; tourism in the Caribbean. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG216 Geography of Europe
Introduction to the geography of economic, political, cultural, and physical processes that shape Europe. Urban and regional change and roots of contemporary issues are emphasized. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG226 Geography of Africa
Land and livelihood south of the Sahara. Problems of development in traditional societies and economies. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG231 Geography of the Middle East
Regional conflicts over resources, religion, and international boundaries, from the Maghreb to Iran. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG236 Geography of Eastern and Southern Asia
Impact of modernization process on regional balances, environment, and role of Asia in the world economic system. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG237 Geography of China
A systematic analysis of the elements of landscape resources, and socioeconomic characteristics of the geography of China. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG241 Geography of Australia and Southwest Pacific
What happens when mad dogs and Englishmen go out in the noonday sun. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG251 People and the Environment I
Alternative approaches to an interdisciplinary study of the environment, including a consideration of world-population dynamics and human adaptation to the environment. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG252 People and the Environment II
Alternative approaches to an interdisciplinary study of the environment, including a consideration of world hunger and the relationship of food production to the environment. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG253 People and the Environment III
Alternative approaches to an interdisciplinary study of the environment, including a consideration of the role of energy in human history and in a contemporary social context, as well as of the issues of pollution and technology. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG271 Geography of Latin America
Regional analysis of Central and South America; Andean and Amazonian environmental barriers; tourism in the Caribbean. Offered alt. yrs. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

Geography

15GEOG301 Elements of Climatology
Meteorology: physical principles, instrumentation and modeling. Global climatic patterns: quantification, impact of natural events and human activities on climate change. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG302 Climate and Landforms
Influence of climate on landscape genesis. Global patterns of energy and water related to weathering processes and rates, mass movement and denudation. Polygenetic landscapes. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG303 Environmental Geography
The physical environment: the nature, distribution and circulation of energy and elements in the biosphere; quantitative analyses of the dynamic plant/animal-environment relationships; environmental degradation and assessment. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG311 Resource Conservation
Are the earth’s resources on the verge of exhaustion? Discussion of the sustainability of human society and the biosphere. Innovative avoidance of resource crises. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG322 Cities and Globalization I
Evolution of cities and urban networks, and urban aspects of contemporary globalization. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG322H Cities and Globalization I
Evolution of cities and urban networks, and urban aspects of contemporary globalization. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG323 Urban Geography
Exploration of theoretical concepts that underlie the designs, functions, and economics of cities. Essential background for urban planning and neighborhood change. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG323H Urban Geography
Exploration of theoretical concepts that underlie the designs, functions, and economics of cities. Essential background for urban planning and neighborhood change. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG326 Sustainable Cities
A sustainable city can be theorized as containing positive interactions and outcomes between the interrelated social, economic, and physical environments. This course will examine these complex and unpredictable interactions and present an opportunity to understand the intensification of poverty, inequality, and environmental degradation witnessed in our cities today. BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG332 Historical Geography of the United States
The where, when, and why of early settlements, and migration. Why preserve historical buildings and districts. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG333 Political Geography
Explores the role of geography in the formation of political parties, social movements, political identities, and other forms of political alliance. The importance of space and place in political processes operating at a variety of geographical scales—from the local to the
Geography

15GEOG333 Political Geography
Global--is examined. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG333H Political Geography
Explores the role of geography in the formation of political parties, social movements, political identities, and other forms of political alliance. The importance of space and place in political processes operating at a variety of geographical scales--from the local to the global--is examined. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG335 Geography of Religion
Distribution, diffusion, and territorial conflicts of the major world religions. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15GEOG341 Economic Geography: The Geography of Consumption
Analysis of historical and contemporary national and international spatial variations in economic systems, urban economics, economic development, and production. Includes: material on production-consumption linkages, service industries, capital circulation, international trade, and social and cultural influences on consumer behavior. BoK: SE., SS. Credit Level: U. Credit Hrs: 3.00

15GEOG342 Economic Geography: Geography of Production
Focuses on the geography of manufacturing and agriculture, with emphasis on models of production, location rationale, and contemporary changes in the developed and less developed world. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG343 Industrial Location
The location decision process. How manufacturers can make better location decisions and areas can enhance industrial development. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG351 Recreation Geography
Games people play around the world. How to locate and manage parks, resorts, wilderness areas, and sporting facilities. Where sports professionals are recruited. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15GEOG353 Political Geography: Geopolitics
Examines on the international and cross-national perspectives of political geography. It deals with the political, economic, cultural, historical, and social aspects of international relations from a geographical perspective and examines societies in transition in the post-Cold War and the post-9-11 worlds. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15GEOG353H Political Geography: Geopolitics
Examines the international and cross-national perspectives of political geography. It deals with the political, economic, cultural, historical, and social aspects of international relations from a geographical perspective and examines societies in transition in the post-Cold War and the post-9-11 worlds. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00

15GEOG376 Environmental Remote Sensing and Geographic Information Systems
Lecture will emphasize practical applications of remote sensing and GIS to the environment. Labs use state-of-the-art software and near-real-time and historic geospatial data sets. Priority given to Environmental Studies majors. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Geography

15GEOG380 Computer Applications in Geography
Overview of computers and geographic applications, DOS and UNIX operating systems, word processing, statistical analysis, computer mapping, basic computer programming, hands-on experience in system integration and operation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOG390 Map Reading and Interpretation
Theory and practice of map reading and interpretation of maps of different types and scales. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOG398H Feeding China
Honors Special Topics Course. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG499 Independent Study in Geography
Please complete and submit an Independent Application Form available from the College Office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

15GEOG500 Geography Capstone I
First course in capstone sequence. Required of all seniors. Review of basic issues involved in geographic research, including problem identification, hypothesis testing, data collection and processing, use of quantitative techniques and graphics. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15GEOG501 Problems in Geography
Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG502 Problems in Geography
Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG503 Problems in Geography
Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG504 Individual Work in Physical Geography
Directed applied research projects, requiring prior faculty approval, dealing with geographic topics related to Earth Science such as meteorology, earth resources, and human impact on climate and resources. Credit and time to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15GEOG505 Individual Work in Physical Geography
Directed applied research projects, requiring prior faculty approval, dealing with geographic topics related to Earth Science such as meteorology, earth resources, and human impact on climate and resources. Credit and time to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15GEOG506 Individual Work in Physical Geography
Directed applied research projects, requiring prior faculty approval, dealing with geographic topics related to Earth Science such as meteorology, earth resources, and human impact on climate and resources. Credit and time to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

H=University Honors course.
Examination of contemporary urban problems from a geographical perspective. Issues include gentrification and displacement, urban sprawl, metropolitan fragmentation, urban environmental concerns. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15GEOG509
Geography Capstone: Readings in the History of Exploration
Selected readings in the history of exploration. Prereq: 15GEOG500. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOG510
Internship in Geography
Applied geography employment experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15GEOG511
Internship in Geography
Applied geography employment experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15GEOG512
Internship in Geography
Applied geography employment experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15GEOG513
Internship in Geography
Applied geography employment experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15GEOG514
Geographic Explorations-Readings
Selected readings on significant geographic discoveries from Everest to Antarctica. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15GEOG521
Urban Development
Examines the spatial evolution of the American urban system from the late 1700s to the present. Emphasis is placed on the changing spatial organization of economic activities and how developments in economic structure, transportation, and communications have affected urban areas. BoK: DC., SS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG521H
Urban Development
Examines the spatial evolution of the American urban system from the late 1700s to the present. Emphasis is placed on the changing spatial organization of economic activities and how developments in economic structure, transportation, and communications have affected urban areas. BoK: DC., SS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG522
Urban Problems
Examination of contemporary urban problems from a geographical perspective. Issues include gentrification and displacement, urban sprawl, metropolitan fragmentation, urban environmental concerns. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15GEOG522H
Urban Problems
Examination of contemporary urban problems from a geographical perspective. Issues include gentrification and displacement, urban sprawl, metropolitan fragmentation, urban environmental concerns. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15GEOG523
Niehoff Urban Studio
The "Niehoff Urban Studio" is a new university-wide interdisciplinary research course dedicated to addressing urban issues that challenge the quality of life in Cincinnati. Faculty teams representing various UC colleges will lead graduate students and advanced undergraduates in coursework resulting in applied research and design proposals. The content of the Studio is derived from the identification of pressing urban issues, academic program goals, and the interests of participating community partners. Perm of Instructor. BoK: SE, SS. Credit Level: U, G. Credit Hrs: 4.00

15GEOG524
Niehoff Urban Studio
The "Niehoff Urban Studio" is a new university-wide interdisciplinary research course dedicated to addressing urban issues that challenge the quality of life in Cincinnati. Faculty teams representing various UC colleges will lead graduate students and advanced undergraduates in coursework resulting in applied research and design proposals. The content of the Studio is derived from the identification of pressing urban issues, academic program goals, and the interests of participating community partners. Perm of Instructor. BoK: SE, SS. Credit Level: U, G. Credit Hrs: 4.00

15GEOG525
Urban Sustainability
The current urban system institutionalized by urban restructuring at the turn of the twenty-first century has significantly contributed to intensification of poverty, inequality, poor levels of community participation, and environmental degradation. This class examines the theoretical underpinnings and policy formation of, and responses to, the issues surrounding sustainable communities. BoK: SE., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GEOG541
Contemporary Issues in Economic Geography
Examination of issues in contemporary economic geography; exploration of the spatial distribution of economic activity; survey of historical and theoretical perspectives, current areas of inquiry and research approaches in the subdiscipline. Prereq: 15GEOG341. BoK: SE, SS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG544
Geography of Transportation
Relationship between transportation and spatial organization; selected analytical models dealing with traffic demand, network configuration, and allocation of transport facilities; application to selected problems. BoK: QR., SS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG550
Geography International Field Trips
Guided field trips to foreign locations (Yucatan, Cuba, Belize, etc.) with lectures and field experience. BoK: DC., SS. Credit Level: U, G. Credit Hrs: 2.00-5.00

15GEOG551
Environmental and Geoarchaeological Field Methods - Belize
A two-week field methods course focusing on the application of environmental and geoarchaeological techniques in the study of past human-environment interactions. The course is taught in the Programme for Belize conservation area. Perm of Instructor. BoK: NS,
15GEOG569

Seminar: Landscape Ecology

This course consists of a series of lectures, labs, readings, and group discussions on the effects of landscape patterns on ecological processes. Special attention will be given to GIS and remote sensing techniques involved in quantifying landscape pattern. Lab exercises will focus on the use of landscape pattern metric software such as Patch Analyst 2.0 and Fragstats. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

15GEOG570

Soils

Examination of the factors determining spatial variability in pedogenesis and development. Soil classification. Soils as a factor in human land use. Mandatory field trips. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG571

Approaches to Past Landscapes

Introduction to the methods of environmental and geo-archaeology using case studies from around the world with an emphasis on soil analysis. Local field trip. BoK: NS., SS. Credit Level: U, G. Credit Hrs: 3.00

15GEOG573

The Urban Habitat

The city as a physical environment; urban environment problems and management. BoK: SS., SE. Credit Level: U, G. Credit Hrs: 3.00

15GEOG574

Principles of Computer Cartography

Lecture emphasizes cartographic principles which are implemented in computer lab to produce maps using standard software packages. Map reading, projections, data entry, and graphic design. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG576

Principles of Remote Sensing

Basic physical principles of electromagnetic radiation; remote sensing systems; interpretation of aerial photographs, thermal and radar imagery; digital analysis of multispectral satellite data; remote sensing applications. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG577

Analytical Computer Cartography

Analysis of spatial data and production of computer-generated thematic maps using cartographic/GIS software packages. Includes data transformations, image processing, and accessing on-line cartographic data sources through WWW. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG578

History and Philosophy of Geography

Growth of geographic thought stressing contemporary problems. The theories and aims of the discipline. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOG579

Field Work and Research Methods

How to formulate hypotheses, gather geographical data (through field samplings, laboratory analyses and testings), and analyze data with multivariate statistical methods. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOG580

Introduction to Geographic Information Systems

Essential elements of a GIS; hardware requirements; GIS software; data acquisition; data structures; spatial databases; methods of data analysis and spatial modeling; applications of GIS to a variety of environmental and urban economic problems. GIS packages such as ArcView and Idrisi are used in the course. BoK: NA. Credit Level: U, G.
15GEOG601 Field Projects
Off-campus research field studies requiring prior faculty approval. Cr. and hrs. to be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG602 Field Projects
Off-campus research field studies requiring prior approval. Cr. and hrs. to be arranged. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG603 Field Projects
Off-campus research field studies requiring prior approval. Cr. and hrs. to be arranged. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOG683 Advanced Remote Sensing
Current problems, issues, and research in satellite remote sensing of the environment. Includes issues of scale resolution and accuracy of satellite and ancillary data. Prereq: 15GEOG583. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG693 Advanced GIS
A research seminar in geographic information systems. Topics include GIS design methodologies, GIS macro language programming, and others which may vary from term to term. Students are expected to develop and carry out a small research project which will result in a professional paper and a computer presentation. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GEOG701 Geographic Research
Advanced research projects, pursued individually in the library or laboratories, requiring prior faculty approval. Cr. and hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15GEOG702 Geographic Research
Advanced research projects, pursued individually in the library or laboratories, requiring prior faculty approval. Cr. and hrs. to be arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15GEOG703 Geographic Research
Advanced research projects, pursued individually in the library or laboratories; requiring prior faculty approval. Cr. and hrs. to be arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15GEOG704 Staff Seminar
Forum for discussing research papers by visiting speakers, faculty, and graduate students. Credit Level: G. Credit Hrs: 1.00

15GEOG705 Staff Seminar
Forum for discussing research papers by visiting speakers, faculty, and graduate students. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00

15GEOG706 Staff Seminar
Forum for discussing research papers by visiting speakers, faculty, and graduate students. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00

15GEOG711 Seminar: Latin America
A geographic approach to the study of Latin America. Credit Level: G. Credit Hrs: 4.00

15GEOG712 Seminar: Africa
A geographic approach to the study of Africa. Credit Level: G. Credit Hrs: 4.00

15GEOG713 Seminar: Europe
A geographic approach to the study of Europe. Credit Level: G. Credit Hrs: 4.00

15GEOG714 Seminar: Asia
A geographic approach to the study of Asia. Credit Level: G. Credit Hrs: 4.00

15GEOG730 Seminar: Regional Geography
Delimiting regions, disparities in regional growth and development, selected country case studies. Credit Level: G. Credit Hrs: 4.00

15GEOG758 Seminar: Latin America
A geographic approach to the study of Latin America. Credit Level: G. Credit Hrs: 4.00

15GEOG759 Seminar: Africa
A geographic approach to the study of Africa. Credit Level: G. Credit Hrs: 4.00

15GEOG760 Seminar: Europe
A geographic approach to the study of Europe. Credit Level: G. Credit Hrs: 4.00

15GEOG761 Seminar: Asia
A geographic approach to the study of Asia. Credit Level: G. Credit Hrs: 4.00

15GEOG771 Seminar: Latin America
A geographic approach to the study of Latin America. Credit Level: G. Credit Hrs: 4.00

15GEOG772 Seminar: Africa
A geographic approach to the study of Africa. Credit Level: G. Credit Hrs: 4.00

15GEOG773 Seminar: Europe
A geographic approach to the study of Europe. Credit Level: G. Credit Hrs: 4.00

15GEOG774 Seminar: Asia
A geographic approach to the study of Asia. Credit Level: G. Credit Hrs: 4.00

15GEOG781 Seminar: Latin America
A geographic approach to the study of Latin America. Credit Level: G. Credit Hrs: 4.00

15GEOG782 Seminar: Africa
A geographic approach to the study of Africa. Credit Level: G. Credit Hrs: 4.00

15GEOG783 Seminar: Europe
A geographic approach to the study of Europe. Credit Level: G. Credit Hrs: 4.00

15GEOG784 Seminar: Asia
A geographic approach to the study of Asia. Credit Level: G. Credit Hrs: 4.00

15GEOG791 Seminar: Latin America
A geographic approach to the study of Latin America. Credit Level: G. Credit Hrs: 4.00

15GEOG792 Seminar: Africa
A geographic approach to the study of Africa. Credit Level: G. Credit Hrs: 4.00

15GEOG793 Seminar: Europe
A geographic approach to the study of Europe. Credit Level: G. Credit Hrs: 4.00

15GEOG794 Seminar: Asia
A geographic approach to the study of Asia. Credit Level: G. Credit Hrs: 4.00

15GEOG851 Seminar: Latin America
A geographic approach to the study of Latin America. Credit Level: G. Credit Hrs: 4.00

15GEOG852 Seminar: Africa
A geographic approach to the study of Africa. Credit Level: G. Credit Hrs: 4.00

15GEOG853 Seminar: Europe
A geographic approach to the study of Europe. Credit Level: G. Credit Hrs: 4.00

15GEOG854 Seminar: Asia
A geographic approach to the study of Asia. Credit Level: G. Credit Hrs: 4.00

15GEOG891 Seminar: Latin America
A geographic approach to the study of Latin America. Credit Level: G. Credit Hrs: 4.00

15GEOG892 Seminar: Africa
A geographic approach to the study of Africa. Credit Level: G. Credit Hrs: 4.00

15GEOG893 Seminar: Europe
A geographic approach to the study of Europe. Credit Level: G. Credit Hrs: 4.00

15GEOG894 Seminar: Asia
A geographic approach to the study of Asia. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
Seminar: Landscape Ecology
This course consists of a series of lectures, labs, readings, and group discussions on the effects of landscape patterns on ecological processes. Special attention will be given to GIS and remote sensing techniques involved in quantifying landscape pattern. Lab exercises will focus on the use of landscape pattern metric software such as Patch Analyst 2.0 and Fragstats. Credit Level: G. Credit Hrs: 4.00

Seminar in Environmental Locational Geography
Environmental legislation, and the Environmental Impact Statement (EIS) process. Credit Level: G. Credit Hrs: 4.00

Seminar in Urban Geography
Current research in urban morphogenesis and settlement geography; spatial perspectives on urban activity patterns; townscape analysis. Credit Level: G. Credit Hrs: 4.00

Seminar in Political Geography
Global, national, regional and local processes affecting electoral politics, economic development politics, and social movement mobilization are examined. The intersection of different-scaled processes at the urban level is emphasized. Credit Level: G. Credit Hrs: 4.00

Seminar in Cultural Geography Theory
Geographical theory and methods for the study of the interconnectedness of people and environment, including cultural ecology, environmental perception and natural hazards research. Credit Level: G. Credit Hrs: 3.00-9.00

Seminar: Physical Geography
Current research in surficial and atmospheric processes including climate, denudation, tectonic effects, and hydrology. Emphasis on human impact on process rates and location in the Holocene. Credit Level: G. Credit Hrs: 4.00

Seminar: Economic Geography
Examines local and global political and social contexts that shape economic processes. Topics from historical economic geography concern labor production, uneven development and capital accumulation. Current impacts on the sub discipline including comparative economic systems. Consumption, regulation and cultural economy are also addressed. Credit Level: G. Credit Hrs: 4.00

Seminar in Geographic Development
Economic development and modernization of traditional societies. Agricultural reform, water resources development, industrialization policies, and manufacturing location. Credit Level: G. Credit Hrs: 4.00

Seminar: Geographical Social Theory
Contemporary developments in social theory related to urban, economic, political, and cultural geography. Credit Level: G. Credit Hrs: 4.00

Research Seminar: Population Geography
Examination of demographic components of regional change. Credit Level: G. Credit Hrs: 4.00

Seminar: Urban Population Change
Seminar: Urban population change. Intra-urban residential location and related issues are analyzed from a variety of theoretical perspectives. Credit Level: G. Credit Hrs: 4.00

Seminar in Location Analysis
Discussion of location models (the P-median, P-center, covering); model formulation and solution strategies. Credit Level: G. Credit Hrs: 4.00

Seminar in Manufacturing Geography
Classical and contemporary approaches to the issues of industrial location and industrial restructuring. Credit Level: G. Credit Hrs: 4.00

Geographic Methods: Research Models
Application of mathematical methods to relationships indicated by geographic theory. Construction and use of multivariate spatial models. Credit Level: G. Credit Hrs: 4.00

Seminar on Geographic Information Science
Latest developments on the theory, methodology and application of geographic information science, including spatial modeling, spatial database, exploratory data analysis, geographic visualization, spatial-temporal simulation, crime analysis, location based service, system integration, etc. Prereq: 15GEOG581, 15GEOG582. Credit Level: G. Credit Hrs: 4.00

Graduate Research Advanced Seminar
Fundamentals of research design; preparation of thesis, dissertation, or grant proposals. Credit Level: G. Credit Hrs: 4.00

Interdisciplinary Seminar: Frontiers of Urban Research
See 15-041-814. Credit Level: G. Credit Hrs: 3.00

Thesis Research
Preparation of the MA thesis, contingent upon faculty approval of a thesis proposal. Credits vary with the research accomplished. Credit Level: G. Credit Hrs: 1.00-15.00

Dissertation Research
Preparation of the PhD dissertation, following completion of Comprehensive Examinations and faculty approval of a dissertation proposal. Credits may vary with the research accomplished. Credit Level: G. Credit Hrs: 1.00-15.00

Physical Geology I: Solid Earth
A survey of solid Earth geology, emphasizing the central role of geologic time and plate tectonics. The structure and composition of Earth's core, mantle, and crust, and the formation and occurrence of minerals and rocks are described. Links among heat flow, plate movement, magmatism, metamorphism and mountain building are emphasized. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00
Geology

15GEOL102
Physical Geology II: Earth’s Surface
A survey of the processes that take place on Earth’s surface that shape our landscapes. Major interconnected geosystems are described, including the oceans, atmosphere, and hydrosphere (including groundwater, glaciers, and rivers). Understanding links among surface processes, landscape development, tectonics, and climate is a major theme of the course. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

15GEOL103
Historical Geology: Evolution of the Earth
A survey of the formation and evolution of the Earth. Emphasis is placed on understanding the fact of Earth’s ancient age and understanding how the absolute ages of minerals and rocks can be determined. Major events in the evolution of the continents and oceans are described. The fossil record and the evolution of life on Earth are also described. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL104
Environment Geology I
Selected cities are studied in detail to illustrate the effects of geology on the human environment. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL105
Environment Geology II
A survey based on illustrated lectures and text reading of selected national parks whose main features include geologic phenomena, e.g., Mammoth Cave, Yellowstone, and Hawaii. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL106
Environment Geology III
The geological record is used to illustrate how we learn about the global system. With these insights we can assess the future impact of human activities on the globe and formulate possible strategies of society action. Global warming is one example, but the exact topic in any year may change to reflect current global environmental concerns. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL107
Field Geology of Cincinnati
This course will introduce students to field geology, the geologic environment of Cincinnati and basic earth science concepts. The course will involve a field project that will familiarize students with basic techniques used in the collection and analysis of geologic data. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL108
Geologic Environment of Cincinnati
Fossils, rocks and sediments of Cincinnati and their relationships to the city as a place to live. BoK: SE., NS. Credit Level: U. Credit Hrs: 3.00

15GEOL109
Geologic Environmental Hazards
Hazards from geological materials and geological processes relevant to the tri-state area are described and assessed. Local hazards are examined on field trips, including landslide prevention and remediation sites. BoK: SE., NS. Credit Level: U. Credit Hrs: 3.00

15GEOL111
Geology Laboratory
Laboratory and field work with maps, rocks, minerals and fossils. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL112
Geology Laboratory
Laboratory and field work with maps, rocks, minerals and fossils. This is the second offering of a three-course sequence. Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL113
Geology Laboratory
Laboratory and field work with maps, rocks, minerals and fossils. This is...
Geology

15GEOL173
A Trip to an Active Plate Margin: Experiencing Applied Geology in the Field. A Freshman Seminar.
Field-based study of environmental and applied geology and landscapes of an active plate margin. Topics to be covered include seismic, flood, volcanic, and landslide hazards, water resources and groundwater pollution. Students will do field projects based on first-hand observations. Prereq: 15GEOL172. BoK: NS, SE. Credit Level: U. Credit Hrs: 2.00

15GEOL174
Study of interaction of humans with geologic environment including atmosphere, biosphere, lithosphere and hydrosphere. Introduction to climate change. Includes field trips to local site of landslides, hillside creep, floods and landslides. Students will present a selected case study. A Freshman Seminar. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

15GEOL175
Advanced Trip Through Time: A Culminating Experience of Earth History in the Field
Field-based advanced study of geological materials and processes used to reconstruct Earth history. First-hand observation of rocks, fossils, structures, landforms, the geologic record of orogeny and deep geological time. Field trip will serve as a synthesis of concepts in Earth history. A Freshman Seminar. BoK: HP, NS. Credit Level: U. Credit Hrs: 2.00

15GEOL201
Igneous and Metamorphic Petrology
Course will explore the origin and evolution of igneous and metamorphic rocks in the context of plate tectonics. Topics will include the mineralogy, petrology, geochemistry, and tectonics settings of igneous and metamorphic rocks. Students will develop skills in mineral and rock identification, optical mineralogy, reading geologic maps, and will solve quantitative problems using a spreadsheet. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15GEOL202
Mineralogy
Principles of mineral chemistry, crystal structure mineral stability and occurrence in Earth environments, coupled with practical experience in the identification of 100 important rock-forming minerals using their diagnostic physical properties. Prereq: 15CHEM101. BoK: NS, Credit Level: U. Credit Hrs: 4.00

15GEOL203
Geomorphic Processes
Survey of the mechanics of the subaerial processes shaping Earth's surface with an emphasis on fluvial, weathering, mass-wasting, and soil-forming processes. Review of extant geomorphic processes and the formation of observed landforms. The course starts with a quantitative assessment of the significance of rare catastrophic events in shaping landscapes. Laboratories use online data resources and GIS (very basic GIS training is provided at the beginning of the course). BoK: NS, Credit Level: U. Credit Hrs: 4.00

15GEOL204
Introduction to Structural Geology
Stress, strain and rock behavior are discussed. Joints, faults, folds, and cleavage are described and analyzed. Structural laboratory exercises train the students in usage of the Brunton compass and the application of various techniques in solving structural geology problems in field/lab. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15GEOL205
Paleontology and Sedimentary
Intro to the sedimentary and fossil record; survey of fossil-forming organisms, concepts of evolution fossil preservation, and paleoecology, as well as principles of sedimentary geology are discussed. Application of fossils, trace fossils, and sedimentology, interpreting ancient environments, environmental change, geologic time will be emphasized.

H=University Honors course.
Geology

15GEOL361
Environmental Volcanology
Volcanic hazards, volcanic gases, effect of volcanoes on the weather, biological activity around submarine volcanoes, mass extinctions and volcanoes, volcanic risks and rewards, prediction of eruptions. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL362
Geology of the Tri-State
Geology of the Cincinnati area for teachers, engineers, and architects. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15GEOL374
Geology for Engineers and Architects
Physical geology pertinent to engineering and design. BoK: NS. Credit Level: U. Credit Hrs: 4.00

15GEOL399
Global Climate Change - Future Greenhouse or Ice Age?
This course will examine operation of global climate system, records of past and present climate change, and prospects for future change as a function of natural and anthropogenic influences on climate. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15GEOL399H
Global Climate Change - Future Greenhouse or Ice Age?
A study of the global climate system, including the records of past and present climate change and the prospects for future change as a function of natural and anthropogenic influences on climate. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15GEOL487
Individual Work in Geology
Credit depends on amount of work done. May be entered any quarter. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15GEOL488
Individual Work in Geology
See 15-040-487. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15GEOL489
Individual Work in Geology
See 15-040-487. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

15GEOL499
Independent Study in Geology
Please complete and submit an Independent Application Form available from the College Office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

15GEOL500
Geology Field Camp
Outdoor mapping, measuring, description of earth materials and processes; unraveling earth history. Can serve as a Geology Major’s capstone experience. Hosted by another college/university. BoK: NS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15GEOL501
Petrology and Geochemistry of Igneous Rocks
This course deals with classification and thin section study of igneous rocks. Geochemistry of source region of magmas, their transport mechanisms and differentiation is analyzed using the MELTS software. Prereq: 15GEOL101, 15GEOL111, 15GEOL201. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOL502
Elementary Petrology: Sedimentary Petrology
Hand specimen and thin section study of sedimentary rocks. Petrogenesis of sedimentary rocks. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL503
Tectonic Environments and Crystalline Rocks
Description of crystalline rocks in the context of plate tectonics and

Geology

15GEOL503
Tectonic Environments and Crystalline Rocks
Analysis of thermal and tectonic processes recorded by them. Emphasis on integrating mineralogic, petrologic, structural, geochronologic data to understand formation, uplift and exhumation of mountain belts. Prereq: 15GEOL101, 15GEOL111, 15GEOL201. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15GEOL504
Geomorphic Processes
Examination of the mechanics of geomorphic processes shaping the earth’s surface. Prereq: 15GEOL101. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

15GEOL508
Volcanoes and Planetary Interiors
How to study volcanoes to learn about the interior of planetary bodies. Application to Earth, Moon and Mars. BoK: NA. Credit Level: U. Credit Hrs: 4.00

15GEOL512
Guide to Graduate Research
Seminar on scientific method and on current research. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15GEOL521
Paleontology
Fundamental concepts; paleobiology and the geologic occurrence and significance of fossil organisms. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL522
Paleontology
Fundamental concepts; paleobiology and the geologic occurrence and significance of fossil organisms. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL523
Vertebrate Paleontology and Evolution
Overview of fossil record and evolutionary history of Subphylum Vertebrata from jawless fish to mammals. Uses vertebrate examples to illustrate concepts of systematics, paleoecology, taphonomy, and evolution. Emphasizes key ecological-evolutionary challenges and functional morphology. Prereq: 15GEOL205, 15GEOL206. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL524
Museum Curatorial Internship
At the Cincinnati Museum of Natural History students learn procedures for proper collections, care, and the duties of a curator, including organization of a collection, preparation and identification of specimens and utilizing electronic databases for cataloguing. Grading is on pass/fail basis. BoK: NA. Credit Level: G, U. Credit Hrs: 2.00

15GEOL525
Global Biodiversity Through Time
This course presents an overview of research on the history of global biodiversity, including quantitative evaluation of diversity through time, and possible links between diversity and physical transitions to the earth, especially during major diversity increases and mass extinctions. BoK: HP,. NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL526
Advanced Geology and Biology of Coral Reefs
This course provides an overview of geologic and biologic processes in living coral reef ecosystems, environmental problems occurring in reefs, and a survey of the evolutionary history of reefs through geologic time. BoK: NS. Credit Level: G, U. Credit Hrs: 4.00

15GEOL527
Petrology Seminar
In this course, students will apply their skills in mineralogy and petrology to the solution of topical research problems using a variety of practical analytical approaches. Individual hands-on laboratory work, including
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Hrs:</th>
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<tbody>
<tr>
<td>15GEOL527</td>
<td>Petrology Seminar</td>
<td>Petrographic study of igneous and metamorphic rocks, manipulation of major element, trace element, and isotope data, and computer-assisted modeling, will be emphasized. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL531</td>
<td>Stratigraphy and Sedimentation</td>
<td>Physical and biological processes, environmental interpretation, facies analysis, stratigraphic analysis, basin analysis, and tectonics. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL532</td>
<td>Stratigraphy and Sedimentation</td>
<td>Physical and biological processes, environmental interpretation, facies analysis, stratigraphic analysis, and tectonics. The second offering of a two-course sequence. Prereq: 15GEOL531. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL544</td>
<td>Geology of Ore Deposits</td>
<td>GEOLOGY OF ORE DEP BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL551</td>
<td>Groundwater Geology</td>
<td>Introduction to fundamental properties and characteristics of major aquifer/aquiclude systems and fluids contained therein, techniques of classifying these systems, and applied environmental geology problems in groundwater resources. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL552</td>
<td>Groundwater Geology Modeling</td>
<td>Case studies of groundwater occurrence and flow in glacial materials, desert basins, and other geologic terrains. Other topics of concern to engineering geologists. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL553</td>
<td>Well-Head Protection</td>
<td>Use of groundwater flow modeling and geochemical modeling in the development of strategies for delineation of well-head protection areas. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL554</td>
<td>Geochemistry of Natural Waters</td>
<td>Principles of geochemistry applied to surface and ground water. Emphasis on computer models of speciation. Applications to problems of groundwater contamination. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL555</td>
<td>Organic Compounds of Natural Waters</td>
<td>Organic chemistry applied to natural environments. Emphasizes hydrocarbons and chlorinated compounds in surface and ground waters. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL572</td>
<td>Quaternary Geochronology</td>
<td>The main principles, techniques and applicability of dating methods used in Quaternary Geology. Archaeology, Pedology and Biogeography. Lectures are followed by lab and field experience in newly developing dating techniques Prereq: 15GEOL201, 15GEOL206. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL573</td>
<td>Glacial Field Methods</td>
<td>Two-week field trip in late summer or early fall to study glacial features and deposits in a wide range of settings outside the Cincinnati area. Class meetings and report in autumn quarter. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL574</td>
<td>Glacial Geology</td>
<td>Glacial geologic processes, their products, results, and effects; focus on southwestern Ohio. Extensive field trips. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00-5.00</td>
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<tr>
<td>15GEOL575</td>
<td>Glacial Field Methods</td>
<td>Two-week field trip in late summer or early fall to study glacial features and deposits in a wide range of settings outside the Ohio Area. Class meetings and report in Autumn Quarter. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL576</td>
<td>Advanced Geology Field Trip</td>
<td>A two-week field excursion during September. Conferences and report in Autumn Quarter. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL582</td>
<td>Organic Compounds in Natural Waters</td>
<td>Organic chemistry applied to natural environments. Includes natural hydrocarbons and chlorinated compounds in surface and ground waters. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL589</td>
<td>Fluid Dynamics of Geological Processes</td>
<td>An analysis of the fluid dynamics occurring in geological processes such as magmas, magma chambers, and volcanism. Prereq: 15CHEM103, 15PHY103, 15MATH227. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL590</td>
<td>Geology of the Himalaya Field and Research Methods</td>
<td>Geologic processes that are currently shaping the Himalaya will be examined to provide a foundation for studying active and ancient mountain belts. Attention given to field training and investigation of structural geology, petrology, stratigraphy, and geomorphology while undertaking our traverse. Prereq: 15GEOL102, 15GEOL103, 15GEOL112, 15GEOL113. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00</td>
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<tr>
<td>15GEOL601</td>
<td>Environmental Geology of Aquifer Systems</td>
<td>The goals of this course are to introduce students to the fundamental properties and characteristics of major aquifer/aquiclude systems and fluids contained therein; to learn the techniques of studying and classifying aquifer/aquiclude systems; and to solve applied environmental geology problems in groundwater resources and subsurface contamination. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL603</td>
<td>Geochemistry of Natural Waters</td>
<td>Principles of geochemistry applied to surface and groundwater. Emphasis on equilibrium models of speciation, with some attention to kinetic models. Applications to problems of groundwater contamination. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL604</td>
<td>Carbonate Depositional Environments</td>
<td>Survey of sediments, depositional processes, and biota of modern and ancient carbonate environments including tidal flats, lagoons, reefs, and basins. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL611</td>
<td>Stable Isotope Systematics</td>
<td>Isotopic theory and application to geologic problems including geothermometry, paleoclimate, and stratigraphy, secular variation in stable isotopes through time, and geochemical mass fluxes. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15GEOL628</td>
<td>Solution Geochemistry</td>
<td>Principles of solution chemistry as applied to sedimentary, hydrothermal and solid state processes. The second offering in a two-part course</td>
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Geology

15GEOL628
Solution Geochemistry
sequence. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL631
Clay Mineralogy
Structural mineralogy, X-ray identification, and geologic characteristics of the major groups of clay minerals. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL632
Clay Mineralogy
Seminar on current topics in clay mineralogy. Prereq: 15GEOL631. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL648
Thermodynamics in Geological Processes
Principles of equilibrium and non-equilibrium thermodynamics and their applications to mineral-fluid equilibria at low and high temperatures and pressures. Specific geological examples and their solutions using thermodynamics are covered to develop a working knowledge of thermodynamics. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL683
Metamorphism and Deformation
Analysis of the tectono-thermal evolution of crystal rocks exposed in the internal parts of mountain chains. Topics include development of microstructures and rock fabrics, connections between tectonics and the evolution of mineral assemblages, geochronology, and regional geology of mountain belts. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL685
Seminar -- Petrology
Critical reading of current research papers, hands-on use of microcomputer software, and discussion of current research of participants, topics to be covered include fluid-rock interactions, diffusion, kinetics, thermobarometry, and mechanisms of mineral growth and reaction. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL686
Seminar: Petrology
Seminar on current topics in igneous and metamorphic petrology. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL687
Seminar: Petrology
Seminar on current topics in igneous and metamorphic petrology. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL693
Modern Concepts in Oceanography
Water masses, surface and thermohaline circulation, oceanic-atmospheric interactions, productivity and marine life, deep-sea sediments and geological implications. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL694
Paleoceanography
Lecture and seminar approach. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL695
Ancient Marine Environments
Characterization of parameters of modern and ancient marine environments, physical, chemical, and sedimentological, and tools for their interpretation from the geological record; field based studies examine aspects of one or more ancient environments. Prereq: 15GEOL205, 15GEOL206. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL696
Paleoautecology
Relationships between fossil organisms and their physical and biotic environments at the level of species and populations; taphonomic

Geology

15GEOL696
Paleoautecology
(preservation) potential of species and populations. Prereq: 15GEOL695. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL697
Community and Evolutionary Paleoecology
Review of the theoretical underpinning and methodology important in the study of communities in the fossil record. The importance of paleoecology to macro evolutionary patterns and processes is also explored. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GEOL698
Quantitative Methods in Paleoecology
A "hands-on" course on the use of numerical methods as they apply in paleoecological analyses including multivariate techniques, models of diversification, and bootstrapping. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

15GEOL699
Geology Colloquium
Required of all graduate students majoring in geology. Restricted to Geology students only. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

15GEOL705
Geology of the Mid-Continent
Department Fall field trip. Credit Level: G. Credit Hrs: 1.00

15GEOL712
Paleoceanography -- Paleoecology
Description not available. Credit Level: G. Credit Hrs: 3.00

15GEOL713
Paleoclimatology Seminar
Contontional and Marine Quaternary Chronostratigraphy; problems of dating techniques; correlation of Quaternary events, marine record, and possible correlation to continental events. Credit Level: G. Credit Hrs: 3.00

15GEOL714
Paleoclimatology Seminar
Geologic Climatic Record and Forcing Mechanism; integrated view of global climatic patterns throughout geologic time and understanding of forcing mechanisms. Credit Level: G. Credit Hrs: 3.00

15GEOL751
Glacial Processes Seminar
Examination of field and theoretical bases for various glacial processes. An understanding of the physical and chemical processes associated with glaciers has increased considerably in the past few years. Glacial flow is the best understood of these but the mechanics of erosion and deposition are still unresolved. Course provides theoretical basis for interpretation of field relationships. Prereq: 15GEOL575. Credit Level: G. Credit Hrs: 3.00

15GEOL763
Advanced Metamorphic Petrology
Advanced study of the origin and evolution of metamorphic rocks with emphasis on metamorphic processes and detailed petrography. Field trip. May be taken concurrently with Geol. 503. Credit Level: G. Credit Hrs: 3.00

15GEOL776
Seminar in Sedimentology of Stratigraphic Systems: Seismic and Sequence Stratigraphy
Concepts of sequence stratigraphy based on analysis of exploration seismic records. Credit Level: G. Credit Hrs: 3.00

15GEOL780
Methods of Geological Instruction
Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-12.00

H=University Honors course.
Geology

15GEOL821  
Paleontology Seminar  
A graduate seminar dealing with many facets of paleontology; principles, organisms, methods. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Greek Literary Papyri
15GRK921
Greek Literary Papyri
Introduction to the Greek literary papyri, with detailed examination of selected topics, requiring good facility in ancient Greek and its literature. Credit Level: G. Credit Hrs: 4.00

Seminar: Hesiod
15GRK922
Study of the text and scholarship of Hesiod's poetry. Credit Level: G. Credit Hrs: 4.00

Theocritus
15GRK923
A study of the poetry of Theocritus with particular regard to the formation of the pastoral genre and the connections between Theocritus' pastoral poems and other Idylls. Credit Level: G. Credit Hrs: 4.00

Greek Lyric Poetry
15GRK925
Graduate Seminar: The new papyrus discoveries and new literary approaches to the Lyric Age of Greece. Credit Level: G. Credit Hrs: 4.00

Libraries in Greece and Rome
15GRK927
Detailed examination of current topics in the study of ancient libraries and readers. Requires good facility in Greek and Latin. Credit Level: G. Credit Hrs: 4.00

Greek New Comedy
15GRK930
Study of Menander plays and comic technique, with comparison to other Hellenistic performance forms. Credit Level: G. Credit Hrs: 4.00

Documentary Papyri From Alexandria
15GRK931
Reading of contracts and letters surviving on papyri found in Alexandria and elsewhere in Egypt. Subjects in these documents range from debt to divorce among Alexandrian Jews and Christians. Credit Level: G. Credit Hrs: 4.00

Ancient Literary Criticism
15GRK933
Readings and discussion of selections from Plato, Aristotle's, Poetics, Dionysius of Halicarnassus, "Longinus," and other works of literary criticism. Credit Level: G. Credit Hrs: 4.00

Sexuality in Greece and Rome
15GRK937
This seminar examines the cultural construction of sexuality in ancient Greece and Rome. The emphasis is on hermeneutics: problems of interpretation, cultural poetics, their biases and our. We will examine both literary and visual sources. Class meets with 15Clas937. Credit Level: G. Credit Hrs: 4.00

Seminar: Homeric Poems
15GRK939
Scholarly research on the Homeric poems Credit Level: G. Credit Hrs: 4.00

Greek Epigraphy
15GRK941
Introduction to ancient Greek texts preserved on stone. Students learn how to read the physical objects and their representations, how to record and publish the texts, and how to write documentary history. Focus is on site in the "classical" Greek world of 4th & 3rd century BC. Credit Level: G. Credit Hrs: 4.00

The Pre-Socratics
15GRK949
Study of the fragments, queries, and doctrines of selected Pre-Socratic thinkers, in the context of their own times, the ancient traditions which preserved our evidence, and modern research. Credit Level: G. Credit Hrs: 4.00

H--University Honors course.
German

15GRMN101  
Basic German I  
(Elementary German I)  
Basic German language and culture. First quarter in the three-quarter sequence to fulfill A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15GRMN102  
Basic German II  
(Elementary German II)  
Basic German language and culture. Second quarter in the three-quarter sequence. Prereq: 15GRMN101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15GRMN111  
Extended Basic German 1  
(Elementary German I)  
Basic German language and culture. First quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN111H  
Extended Basic German Honors  
Honors section of the 1st quarter in the extended basic German sequence. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN112  
Extended Basic German 2  
(Formerly Elementary German II)  
Basic German language and culture. Second quarter in the 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15GRMN111. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN112H  
Extended Basic German 2 Honors  
Honors section of the 2nd quarter in the extended basic German sequence. Prereq: 15GRMN111. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN113  
Extended Basic German 3  
(Elementary German III)  
Basic German language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15GRMN112. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN113H  
Extended Basic German 3 Honors  
Honors section of the 3rd quarter in the extended basic German sequence. Prereq: 15GRMN112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN114  
Extended Basic German 4  
(Former Intermediate German IV)  
Basic German language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15GRMN113. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN114H  
Extended Basic German 4 Honors  
Honors section of the 4th quarter in the extended basic German sequence. Prereq: 15GRMN113H. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN115  
Extended Basic German 5  
(Former Intermediate German V)  
Basic German language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirements. Prereq: 15GRMN114. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN115H  
Extended Basic German 5 Honors  
Honors section of the 5th quarter in the extended basic German sequence. Prereq: 15GRMN114H. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

Greek

15GRK949  
The Pre-Socratics  
Study of the fragments, queries, and doctrines of selected Pre-Socratic thinkers, in the context of their own times, the ancient traditions which preserved our evidence, and modern research. Credit Level: G. Credit Hrs: 1.00

15GRK950  
Seminar: Plato  
Analysis of several Platonic dialogues with an emphasis on the intersection between philosophic and literary problems. Credit Level: G. Credit Hrs: 1.00

15GRK953  
Seminar: Prometheus  
The controversy over Aeschylus’ Prometheus will be used to explore the tragic genre as a whole; reading will involve the Prometheus as well as the Persians and one other non-Aeschylean play. Credit Level: G. Credit Hrs: 4.00

15GRK955  
Aeschylus Seminar  
The seminar will involve the study of Aeschylus’ drama Agamemnon. Topics to be discussed may include textual problems, the use of the chorus and lyric, management of actors' roles, dramatic structure, imagery, and stage presentation. Credit Level: G. Credit Hrs: 4.00

15GRK957  
The Symposium and Symposium Literature  
Archaic and Classical poetry and its metasympotic elements; archaeological material and visual evidence in Archaic and Classical Greece with a focus on the socio-cultural function of communal drinking. Credit Level: G. Credit Hrs: 4.00

15GRK971  
Doctoral Dissertation Research  
Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15GRK975  
Greek Prose Composition  
Study of Attic prose style and practice in writing prose in various styles. Credit Level: G. Credit Hrs: 4.00

15GRK979  
Seminar: Herodotus  
Emphasis will be on issues of historiography in Herodotus. Credit Level: G. Credit Hrs: 4.00

15GRK980  
Apollonius  
Reading and advanced study of Apollonius’ Argonautici. Credit Level: G. Credit Hrs: 4.00

15GRK985  
Seminar: Greek Literature  
Contact department. Credit Level: G. Credit Hrs: 4.00

15GRK999  
Directed Readings in Greek  
Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

German

15GRMN115H
Extended Basic German 5 Honors
Hrs: 3.00

15GRMN116
Extended Basic German 6
Basic German language and culture. Sixth quarter of the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15GRMN115. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN116H
Extended Basic German 6 Honors
Honors section of the 6th quarter in the extended basic German sequence. Prereq: 15GRMN115H. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN117
Beginning German I
First quarter in a 2-quarter sequence equivalent to 111, 112, and 113. BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15GRMN118
Beginning German II
Second Quarter in a 2-quarter sequence equivalent to 111, 112, 113. Prereq: 15GRMN117. BoK: DC, HU. Credit Level: U. Credit Hrs: 4.00

15GRMN119
Beginning German for E-Media Students
Primarily online course with one on-campus meeting per week. Intensive introduction to German language and culture for E-Media students enrolled in the "Munich Summer curriculum" program. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15GRMN131
German American Experience
This course is an introduction to German-American history, literature, and culture with particular reference to the Ohio Valley and the Greater Cincinnati area. Taught in English. Required for the German American Studies Certificate. BoK: HU., SS. Credit Level: U. Credit Hrs: 3.00

15GRMN132
Cincinnati and the German-American Experience
An introduction to Cincinnati's German heritage, which examines German immigration, settlement, and life in the Greater Cincinnati area, from the 18th century to the present. In English BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15GRMN161
Intensive German for International co-op program.
Providing students with the fundamental knowledge of German to begin preparation for a five-month's co-op assignment in Germany. Emphasis is given to professional social issues, which provide an understanding of what students will experience living in Germany. BoK: HU., DC. Credit Level: U. Credit Hrs: 5.00

15GRMN171
Survey of German Culture I
In English. The origin of German institutions, social structures, philosophical and religious thought through the Baroque. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN171H
Honors German Culture
An examination of the individual and collective contribution of Germany and the Germans to civilization. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 4.00

15GRMN172
Survey of German Culture II
In English. German contributions to Western civilization from the Age of Enlightenment to 1918. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

Survey of German Culture II Honors
An examination of the individual and collective contributions of Germany and the Germans to civilization, from the courtly culture of Absolution to Bismarck and the Second Reich. An Honors course, parallel to German 172. The second offering in a three-part course sequence. Prereq.: Honors; perm. of instr. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 4.00

15GRMN173
Survey of German Culture III
In English. A cultural view of Germany from World War I to the present. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN173H
Survey of German Culture III Honors
An examination of the individual and collective contributions of Germany and the Germans to civilization, from 1900 to the present. An Honors course, parallel to German 173. The third offering in a three-part course sequence. Prereq.: Honors; perm. of instr. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 4.00

15GRMN174
Survey German Culture: Berlin
Annual study tour to Berlin, Germany, in September to acquaint students with the history, culture & language. Length of trip - 10 days. BoK: HU. Credit Level: U. Credit Hrs: 1.00-6.00

15GRMN174H
Survey German Culture: Berlin Honors
A survey of the history of German culture from medieval times to the present as reflected in the art, architecture, and society of Berlin. The course consists of a ten-day fieldtrip to Berlin. Honors BoK: HU. Credit Level: U. Credit Hrs: 1.00-6.00

15GRMN185
Introduction to Film Studies
Methods & issues of film studies: the techniques of film analysis, covering the social, cultural, economic, technological & aesthetic issues associated with motion pictures. Also introduces film history, focusing on important films and major film movements 1895 to present. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15GRMN201
Second Year German I
Intermediate German language and culture. First quarter in a three-quarter sequence; continuation of the Basic German 5-hour course. BoK: DC., HU. Credit Level: U. Credit Hrs: 5.00

15GRMN202
Second Year German II
Intermediate German language and culture. Second quarter in a three-quarter sequence. Perm of Instructor. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15GRMN203
Second Year German III
Intermediate German language and culture. Third quarter in a three-quarter intensive sequence. Perm of Instructor. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15GRMN204
Munich Program: Intensive German Language and Culture
A five week intensive language and culture course in Munich, Germany, for students who have completed at least one year of Basic German (or the equivalent). This course is the equivalent of an entire year of language study. In addition to expanding vocabulary, mastering advanced grammar techniques, and improving communication skills, students become well acquainted with Bavarian and German culture. Numerous excursions in Munich and beyond are an integral part of the course. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 1.00-15.00
German

15GRMN261 "The Cinema belongs to the City": Architecture, Film and Berlin. 
The course explores the cinematic and literary images of Berlin's architecture and the interaction of the city's inhabitants with their built environment. The course will analyze film aesthetics and narratives in regard to architecture. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN262 Nobel Laureates in German Literature 
Works by Paul Heyse, Gerhart Hauptmann, Thomas Mann, Hermann Hesse, Nelly Sachs, Heinrich Bll, GUnter Grass, Franz Kafka, and Friedrich Dürrenmatt. Participants also have the opportunity to view the film versions of several of these works. No knowledge of German is required. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15GRMN263 Germany Since the Fall of the Wall 
Examines the cultural production of post-Wende Germany as the basis for understanding the new, united Germany. Discussions will focus on literature, film, and other forms of cultural production. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15GRMN264 Berlin in the 1920's: Metropolis, Modernity, and Mass Culture 
This course will draw on films (Lang, Ruttmann, Pabst, Jutzi) architectural manifestos (Bauhaus), literature (Brecht, Doeblin, Toller), sociology/ philosophy (Benjamin, Simmel), and investigates aspects of criminality in an attempt to understand Berlin in the 1920s. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN267 German Love and Conflict in the Middle Ages 
Selections from the German Middle Ages that speak to the ever-compelling topic of love and its ensuing conflicts. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15GRMN268 Multicultural Germany 
German literature as a striking reflection of the legacies of postwar and post-unification history, vibrant shifts in its ethnic populations, and artistic interest in understanding a changing society. All readings are in English. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15GRMN277 The Faust Myth in Germany 
Literature-in-translation course focusing on the 'Faust Book' (1587) and on Goethe's drama 'Faust' (1805). BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN280 German Fairy Tales: The Grimms and Beyond 
Examines representative tales such as "Snow White," "Sleeping Beauty," and "Hansel & Gretel," the oral tales collected and published by Jakob and Wilhelm Grimm, concentrating on the collecting methods & intentions of the Grimms and comparing some of the versions of specific tales since first publication BoK: LT. Credit Level: U. Credit Hrs: 3.00

15GRMN301 Introduction to German Studies 
Course covers a range of topics in German literature, culture, and film. It combines cultural analysis with advanced language instruction. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN302 Introduction to German Studies 
Continuation of 15GRMN301. Prereq: 15GRMN301. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN303 Introduction to German Studies 
This course is designed to introduce students to current events in German culture and society through study of the role of various media (incl. print media, radio, TV, online sources and film). Special attention

H=University Honors course.
German

15GRMN396
Germanic Mythology
An introduction to Germanic and Norse mythology from the Middle Ages to the most recent re-workings in literature and film. A major component of the course will focus on the use and abuse of Germanic mythology in the 20th century. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15GRMN401
Seminar in German Studies
Advanced topics in German literature, film, and culture; advanced German language instructions. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN402
Seminar in German Studies
Continuation of GRMN401. Prereq: 15GRMN401. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN403
Seminar in German Studies
Continuation of GRMN402. Prereq: 15GRMN402. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15GRMN481
Honors Senior Thesis
Contact department. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15GRMN482
Honors Senior Thesis
Contact department. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15GRMN483
Honors Senior Thesis
Contact department. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15GRMN491
Senior Capstone
Development and completion of senior capstone project. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN492
Senior Capstone
Development and completion of senior capstone project. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN493
Senior Capstone
Development and completion of senior capstone project. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15GRMN498
German Internship
A learning opportunity external to the campus providing experience related to the major. Placement will be coordinated between the college and department, and department faculty will oversee internship activities. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15GRMN499
Individual Projects
Upon arrangement with Dept. Head. Hrs. to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15GRMN501
Survey of German Literature I
Readings and discussions of representative works by Wieland, Lenz, Lessing, and Goethe. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRMN502
Survey of German Literature II
Continuation of 15GRMN501. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

German

15GRMN503
Survey of German Literature III
Continuation of 15GRMN502. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15GRMN513
The German-American Experience
History of German immigration, settlement and influences on American society. BoK: DC, HU. Credit Level: U, G. Credit Hrs: 3.00

15GRMN570
Beginning German I for Graduate Students
Instruction in Beginning German for graduate students; linked to the undergraduate course German 111. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15GRMN571
Beginning German II for Graduate Students
Instruction in Beginning German for graduate students; linked to the undergraduate course German 112. Prereq: 15GRMN570. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15GRMN561
Extended Basic German I for Graduate Students
Graduate course number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN111. Credit Level: G. Credit Hrs: 3.00

15GRMN562
Extended Basic German II for Graduate Students
Graduate course number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN112. Prereq: 15GRMN561. Credit Level: G. Credit Hrs: 3.00

15GRMN563
Extended Basic German III for Graduate Students
Graduate course number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN113. Prereq: 15GRMN562. Credit Level: G. Credit Hrs: 3.00

15GRMN564
Basic German I for Graduate Students
Graduate course number for students attending courses in the undergraduate Basic German sequence. Linked to German 101. Credit Level: G. Credit Hrs: 5.00

15GRMN565
Basic German II for Graduate Students
Graduate course number for students attending courses in the undergraduate Basic German sequence. Linked to 15GRMN102. Prereq: 15GRMN564. Credit Level: G. Credit Hrs: 5.00

15GRMN566
Basic German III for Graduate Students
Graduate course number for students attending courses in the undergraduate Basic German sequence. Linked to 15GRMN103. Prereq: 15GRMN564. Credit Level: G. Credit Hrs: 5.00

15GRMN567
Extended Basic German IV for Graduate Students
Graduate course number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN114. Prereq: 15GRMN566. Credit Level: G. Credit Hrs: 3.00

15GRMN568
Extended Basic German V for Graduate Students
Graduate course number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN115. Prereq: 15GRMN567. Credit Level: G. Credit Hrs: 3.00

15GRMN569
Extended Basic German VI for Graduate Students
Graduate course number for students attending courses in the undergraduate Extended Basic German sequence. Linked to 15GRMN116. Prereq: 15GRMN568. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
German

15GRMN701
Middle High German
An introduction to MHG grammar and syntax. Keyed to selected literary texts. Credit Level: G. Credit Hrs: 4.00

15GRMN702
Film and Modernity: Weimar and Nazi Cinema
Focuses on German cinema during the Weimar Republic and the Third Reich. It examines continuities and breaks between these two periods and emphasizes the ways in which filmmakers sought to come to grips with modernity via this most modern of media. Films include: The Cabinet of Dr. Caligari, Metropolis, People on Sunday, Triumph of the Will, Jud Suss, Muenchhausen and others. The most important scholarship on German film from the 1920s to the 1940s will also be discussed. Credit Level: G. Credit Hrs: 4.00

15GRMN704
Advanced Middle High German Readings
Building upon course #701 (Introduction to Middle High German), this course will increase students' familiarity with the literature of the period ca. 1170-1450 by close study of selected major authors, works or groups of works. It will hone students linguistic and analytical skills and will lead to a deeper understanding of the historical, cultural and intellectual background, from whence this literature sprang. Credit Level: G. Credit Hrs: 4.00

15GRMN710
Writing the Berlin Republic: German Literature after the Fall of the Wall
Contemporary German literature that addresses the fall of the Berlin Wall and its aftermath; East and West German perspectives. Credit Level: G. Credit Hrs: 4.00

15GRMN714
Nature's Authority: Literary Approaches from Goethe to Sebald
Examination of literary approaches to "nature's authority" in the works of Goethe & Sebald, and in the works of other writers & thinkers of the 19th and 20th centuries. Credit Level: G. Credit Hrs: 4.00

15GRMN715
Early Modern German Literary Culture: Texts and Contexts
Issues of religion, society, politics, rhetoric, poetic, and representational art in the literary imagination of the early modern era (1500-1700). Perm of Department. Credit Level: G. Credit Hrs: 4.00

15GRMN716
Franz Kafka
Examines the works of Franz Kafka (novels, short stories, diaries) as well as later adaptations of these texts in film and literature; explores a broad range of scholarship on Kafka and discusses very different ways in which he has been interpreted. Credit Level: G. Credit Hrs: 4.00

15GRMN717
Imagining Crime: The Case of Weimar Germany
An investigation of ways in which Weimar Germany imitated itself in terms of the figure of the criminal. Credit Level: G. Credit Hrs: 4.00

15GRMN718
Topics Medieval
Examination of issues pertinent to medieval literature. Credit Level: G. Credit Hrs: 4.00

15GRMN719
Literary Nationalism
The fostering of "Germanness" and national identity in literary and cultural texts of the late 18th and the 19th centuries. Writers include Herder, Goethe, Schiller, von Arnim, Brentano, Fichte, Heine, and (Richard) Wagner. Credit Level: G. Credit Hrs: 4.00

15GRMN720
Cities: Space, Narrative, Representation
Explores the city as one of modernism's most important sites and examines what transformations it undergoes in the age of globalization. Readings include major novels from the German and European tradition

15GRMN720
Cities: Space, Narrative, Representation
as well as theoretical texts. Credit Level: G. Credit Hrs: 4.00

15GRMN725
The Classics in Contemporary German Theatre
Addresses the reception, interpretation and performance of classical dramas on the contemporary German stage. After a general introduction to the plays under consideration, the course focuses on the history of reception of these pieces on the stage and in film. Examples are Lessing's Emilia Galotti, Schiller's Kabale und Liebe, Goethe's Faust I, and Kleist's Der Zerbrochene Krug. Credit Level: G. Credit Hrs: 4.00

15GRMN726
Turn-of-the-Century Literature and Culture
Explores literature and culture of the turn of the century (1890-1910). Special emphasis on evolving notions of femininity and masculinity; psycho-analysis; and social concerns. Credit Level: G. Credit Hrs: 4.00

15GRMN732
The Works of W G Sebald
Examines the literary and stylistic writings of W. G. Sebald and discusses their place in and view of the European cultural tradition. Credit Level: G. Credit Hrs: 4.00

15GRMN733
Seminar I - Max Kade Distinguished Visiting Professor
Graduate seminar taught by the Max Kade Distinguished Visiting Professor. See departmental registration tips for details. Credit Level: G. Credit Hrs: 4.00

15GRMN734
Seminar II - Max Kade Distinguished Visiting Professor
Graduate seminar taught by the Max Kade Distinguished Visiting Professor. See departmental registration tips for details. Credit Level: G. Credit Hrs: 4.00

15GRMN739
Topics in 20th-Century Literature
An interpretive evaluation of works by selected authors from the 20th-century. Credit Level: G. Credit Hrs: 4.00

15GRMN740
Topics in German Literature and Culture
Contact department. Credit Level: G. Credit Hrs: 4.00

15GRMN744
German Mythology
This course examines Germanic and Norse mythology. We will begin with the earliest recorded stories, continue through the 19th-century revival of mythology, and conclude with an examination of 20th-century mythological texts. In addition to understanding these texts as aesthetic objects, a major component of the course will focus on the ways in which mythology has been used in the service of various ideologies. Credit Level: G. Credit Hrs: 4.00
German

15GRMN745
German Medievalism
Explores modern literature with a medieval background or subject matter, and modern reworkings of medieval literature Credit Level: G. Credit Hrs: 4.00

15GRMN746
The Historical Novel
The Historical Novel has made a come-back in contemporary German literature. Combining fact and fiction, the genre aspires to a higher degree of realism than other novel forms while at the same time taking literary license with historical events. This seminar offers an introduction to the Historical Novel and asks why and in what form it returns in recent literature. Participants will read Historical Novels from the early 19th to the early 21st century. Readings also include theoretical works on the subject. Credit Level: G. Credit Hrs: 4.00

15GRMN747
German Poetry (1800-2000)
Focuses on German poetry of the 20th century with a necessary prelude on Goethe and 19th century developments. The survey will consider both thematic and formal aspects, even as the texts are discussed in terms of literary Kultur- geschichte. Credit Level: G. Credit Hrs: 4.00

15GRMN759
German Literature's Bestiary
Examines the relationship between humans and animals as reflected in German literature from the 18th to the 20th century. Credit Level: G. Credit Hrs: 4.00

15GRMN771
Master's Thesis Research
Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-9.00

15GRMN794
GTA Orientation in German
Orients graduate teaching assistants to the German Studies Department's teaching policies, procedures, methods and materials. Meets for two or three weeks before fall classes begin. Credit Level: G. Credit Hrs: 4.00

15GRMN803
Contemporary German Literature I
At some point between the late 1980s and the mid-1990s, post-war German literature came to an end. A new generation of writers took the place of a relatively small group of canonical authors in both East and West Germany. In short sequence, the search for the "Wenderoman," the celebration of "Frauleinwunderliteratur," the advent of postliterature, and the appearance of Germans as victims in literary texts occupied readers and critics. Credit Level: G. Credit Hrs: 4.00

15GRMN804
Contemporary German Literature II
Over the course of two quarters, this research seminar will examine the paradigm shift from post-war literature to post-wall literature and investigate its conditions and assumptions. In addition to reading a representative range of primary texts, we will also immerse ourselves in some of the literary debates of the 1990s and beyond, including but not limited to the "Christa- Wolf-Debatte" and the question whether one can speak of GDR-literature after the fall of the wall. Credit Level: G. Credit Hrs: 4.00

15GRMN805
Literary Nationalism I
The fostering of "Germanness" and national identity in literary and cultural texts of the late 18th and the 19th centuries. Writers include Herder, Goethe, Schiller, von Arnim, Brentano, Fichte, Heine, and (Richard) Wagner. Credit Level: G. Credit Hrs: 4.00

15GRMN806
Literary Nationalism II
The fostering of "Germanness" and national identity in literary and cultural texts of the late 18th and the 19th centuries. Writers include Herder, Goethe, Schiller, von Arnim, Brentano, Fichte, Heine, and (Richard) Wagner. Credit Level: G. Credit Hrs: 4.00

15GRMN807
Research Seminar: Film and History
Survey of German film history from earliest cinema to the present, with emphasis on how film confronts (and avoids confronting) German history. Readings in major schools of film theory. Students practice research skills required of academics Credit Level: G. Credit Hrs: 4.00

15GRMN808
German Romanticism and Its Legacy I
The first quarter of this research seminar examines a number of literary and theoretical texts in order to distinguish some of the main themes typically associated with the different "schools" of Romanticism, such as the dedication to a decidedly "Romantic" form of Bildung in the works of the Jena group and an emphasis on themes such as Heimat, violence, the supernatural, nationalism and nature mysticism in those later groups. Credit Level: G. Credit Hrs: 4.00

15GRMN828
The City in Literature: Narrative Representation and Representative Space
Cities are places where people live but they are also imagined in literature and film. This course explores the city as one of modernism's most important sites and examines what transformations it undergoes in the age of globalization. A major focus on Berlin. Credit Level: G. Credit Hrs: 4.00

15GRMN831
German-Jewish Literature
Examination of the various positions that Jewish culture has occupied within modern German culture. Topics include: the holocaust, the question of a German-Jewish "symbiosis" and the complex relationship between gender and Jewish identity. Fiction, essays, films and recent scholarship. Credit Level: G. Credit Hrs: 4.00

15GRMN832
Approaches to G. Grass's "Die Blechtrammel,"
A close examination of what is often considered to be the most important novel in post-war Germany. Various methodologies will be applied, not only to gain an understanding of the novel's contents, but also to test the validity of inter-pretative approaches, to include intermedial (art & literature) techniques. Credit Level: G. Credit Hrs: 4.00

15GRMN833
G. Grass Short Prose
As a follow-up to the prior quarter's focus on Grass's novel "The Tin Drum," this course evaluates Grass's short prose works (from "Katz und Maus": "-m Krebsgang"), many of which are keyed to the motifs and issues introduced in "The Tin Drum." Each student will write an extended research paper and present his / her findings for peer critique. Credit Level: G. Credit Hrs: 4.00

15GRMN834
German Romanticism and Its Legacy I
After several decades of relative neglect, the literature and culture of the early 19th century are attracting increased attention, and a consensus is developing that encompassing definitions are in most cases inadequate. In the first quarter of this seminar, we will examine a number of literary and theoretical texts in order to identify some of the main themes typically associated with the different 'schools' of Romanticism. Credit Level: G. Credit Hrs: 4.00

15GRMN835
German Romanticism and Its Legacy II
During the second quarter we will concentrate on texts from the twentieth century in which a 'romantic' legacy lives on. Credit Level: G. Credit Hrs: 4.00

H = University Honors course.
German
15GRMN897
German Readings
An intensive course in reading for graduate students from other fields. Completion of three quarters of the sequence with grade B or better will be equivalent to Princeton test. Credit Level: G. Credit Hrs: 4.00

15GRMN898
German Readings
An intensive course in reading for graduate students from other fields. Completion of three quarters of the sequence with grade B or better will be equivalent to Princeton test. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15GRMN899
German Readings
An intensive course in reading for graduate students from other fields. Completion of three quarters of the sequence with grade B or better will be equivalent to Princeton test. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15GRMN971
Doctoral Research
Cr. according to amount of work elected. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-18.00

15GRMN898
Directed Readings
Perm. of instr. and Graduate Director required. Credit Level: G. Credit Hrs: 1.00-8.00

15GRMN997
Special Problems in German
1-6 gr. cr. Offered ea. qtr. Hrs. to be arranged. Perm. of Graduate Director. Credit Level: G. Credit Hrs: 1.00-12.00

History
15HIST104
Medieval and Renaissance.
History of Europe and the Mediterranean world from 300 to 1500. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST105
Medieval and Renaissance.
History of Europe and the Mediterranean world from 300 to 1500. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST106
Medieval and Renaissance.
History of Europe and the Mediterranean world from 300 to 1500. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST110
American History to 1848
A survey of American history from colonial times to 1848. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST111
American History 1848-1929
A survey of American history from 1848 to 1929. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST112
American History Since 1929
A survey of American history from 1929 to the present. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST113
European Civilization, 1000-1500
European history from the turn of the millenium to the eve of the Reformation. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST114
European Civilization, 1500-1800
European history from the Renaissance to the French Revolution. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST115
European Civilization, 1800-Present
European history from the era of the French Revolution to the present. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST119
Twentieth Century Europe to 1945
An introductory survey of the history of Europe for the period 1900 to 1945. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST120
Twentieth Century Europe Post-1945
An introductory survey of the history of Europe for the period 1945 to the present. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST121
Asian Civilizations: India
Traces Indian history from the Vedas to the late 1990s with particular attention to the unity and diversity of Indian culture, the rise of centralized empires, the advent of Islam, British colonialism, Indian nationalism, and the creation of India, Pakistan and Bangladesh. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST122
Asian Civilizations: China
Surveys Chinese history from prehistoric times to the Tiananmen Massacre of 1989. Emphasis will be on the evolution and interaction of the country's distinctive political, economic, social and cultural patterns. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST123
Asian Civilizations: Japan
The first half focuses on ancient and medieval Japan, particularly the elegant world of the Heian court, the warrior-samurai class, and the reunification of Japan. The second half surveys the impact of western imperialism and the creation of a modern nation state. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST127
History of Jewish Civilizations I
Traces the history of the Jewish people from its origins to late antiquity. Cross-Listing of JUDC 127 BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST128
History of Jewish Civilizations II
Explores how the Jewish civilization is interpreted through Jewish historical, religious, literary, and cultural developments during the Medieval period. Cross-Listing of JUDC 128 BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST129
History of Jewish Civilization III
This course charts the path of Jewish history from the dawn of the Modern era to the birth of Israel. Cross-listed with JUDC129 BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15HIST130
World History I: Worlds Forming
A survey of world history from the development of separate civilizations to the modern age of interdependence. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST131
World History II: Worlds Connecting
The Medieval period. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST132
World History III: Worlds Interacting
The Modern period. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

H—University Honors course.
McMicken College of Arts and Sciences

History

15HIST145
The Emergence of Secular Jewish Identity and Culture
Explores how Jewish life has evolved and changed over time. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST153
History of Western Civilization
A survey of Western civilization - prehistoric times to the contemporary world; a broad view of institutions, ideas and problems developing in Western societies. A three-part sequence. Transfer Module. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST170
Middle East/North Africa History 660-1258
The political, intellectual, social, and economic history of the Middle East and North Africa between 650 and 1258, using a wide range of primary and secondary sources in standard and electronic format. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST171
Middle East/North Africa History 1258-1850
The political, intellectual, social, and economic history of the Middle East and North Africa between 1258 and 1850, using a wide range of primary and secondary sources in standard and electronic format. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST172
Middle East/North Africa History 1850-Present
The political, intellectual, social, and economic history of the Middle East and North Africa between 1850 and the present, using a wide range of primary and secondary sources in standard and electronic format. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST224
Latin American History
Clash between pre-Columbian Indian civilizations (Maya, Aztec, Inca) and the Spanish, and the resulting societies of conquest and of empire. Themes include: Indian conversion and exploitation, demographic disaster, colonial government, pirates and gold, racial mixture. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST225
Latin American History
Latin America's search for political and economic independence. Themes include: Bourbon reform, independence movements, rise of caudillos, economic development (export crops), society (elite, women, Indians, poor). Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST226
Latin American History
Latin American responses to 20th century. Themes include: Mexican Revolution, Argentine Peronism, Cuban Revolution, Chilean socialism, Central America, militarism, multinationals. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15HIST300
Introduction to Historical Thinking
How Historians do history. Required of all majors and minors in History. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST301
Africa to 18th Century
A study of ancient African history and civilization: Southern origins of Egyptian and the early empires of the Western Sudan. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST302
Africa 1700-1935
History of African social and political institutions before the European conquest. European settlements in Africa: The Atlantic slave trade. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST396H
Deconstructing the Greatest Generation: Reexamining America’s Experience During WWII

History

15HIST303
African History 1945 to Present
The partition and colonization of Africa by European countries. African response to European conquest. Colonial administration of Africa up to the end of World War II. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST309
Human Rights and U.S. Foreign Relations II
Investigates the roles that American people and institutions played in developing a modern regime of human rights as a way to respond to the international effects of mass warfare, genocide, persecution, and poverty since World War I. Topics include comparisons to human rights approaches of other countries and cultures. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST310
The World Order in Crisis (1929-1945)
This is the first quarter of a three quarter course under the general title of The Present in Perspective. The three quarters together are designed to explore from a global point of view major issues that have made, or are making, the world we live in. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST311
The Breakup of the World Order
This is the second quarter of a three quarter course under the general title of The Present in Perspective. The three quarters together are designed to explore from a global point of view major issues that have made, or are making, the world we live in. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST312
Constructing the New World Order
This is the third quarter of a three quarter course under the general title of The Present in Perspective. The three quarters together are designed to explore from a global point of view major issues that have made, or are making, the world we live in. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST316
The Colors of Money: Cross-Cultural Attitudes Toward Wealth and Its Acquisition
This course focuses on the changing attitudes toward wealth and its acquisition in different societies and cultures, and how these shaped our heritage. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST362
American Jewish History
Explores how the American Jewish experience developed and changed over time. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST372
History of Technology
Study of the interactions of technology and society from the 18th Century to the present from a global perspective. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST392
History of Ohio I: Pre-Historic to Civil War
The history of the state and its relationship to the region and nation. This quarter starts with prehistoric and historic Indians, settlement and the struggle to control the land, statehood and Civil War. Urbanization is a unifying threat to our studies. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST393
History of Ohio II
Ohio from the Civil War, focusing on pro and anti-slavery politics, Ohio's presidents, industrialization, and the challenges facing the state today. BoK: HP. Credit Level: U. Credit Hrs: 3.00

H—University Honors course.
History

15HIST396H Deconstructing the Greatest Generation: Reexaming America's Experience During WWII
Examines whether America's experiences on the home front and the fighting fronts was typical of the military tradition or extraordinary. This course will look beyond popular myths associated with "The Greatest Generation. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST397H Giant Tsar: Russia in the Age of Peter the Great
During the reign of Peter the Great, Russia experienced sweeping changes in everything from literature to economics and politics. This course examines Russian history under Peter, paying special attention to Peter's complicated legacy as the creator of modern Russia. The course will be followed by a week-long study trip to St. Petersburg open to all students. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST398 Frontiers in World History
Problems of settlement and interaction between diverse peoples along shared frontiers are a constant theme of human history. This course is designed to introduce upper-level undergraduate history majors to the complexities of frontiers and frontier societies from a comparative perspective. The course will review general questions about defining frontiers and the problems that historians face in studying them, and will then focus on a number of past frontier areas in different parts of the world, analyzing their social, cultural, and political aspects. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HIST399H A Study of Mussorgsky's Pictures at an Exhibition & the Changing Influence in Musical Composition
Using a multidisciplinary approach, this honors seminar will explore two widely known pieces of classical music by Russian composers: Modest Mussorgsky's Pictures At an Exhibition (1874) and Pyotr Tchaikovsky's The Nutcracker Suite (1892), although the focus will be more on Pictures. Both composers used visual stimuli from folk and popular culture such as art exhibitions, stories, the fantastic and make believe, the carnival, dreams and dance as inspiration for their compositions and music. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15HIST399H Clothing and Nakedness in Early America
Clothing was an indicator of ethnicity, class and political ideology in early America. Analyzing visual imagery, artifacts and scholarly work, students will explore how costume affected relations between settlers. Indians and African Americans: how clothing became politicized in the Revolutionary era, and how fashion changed in the wake of the Revolution. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST400 Junior Topics Seminar
This is a guided research seminar that builds on research skills developed in History 300 and leads to the senior writing seminar. Students analyze primary documents and write a paper in teams of two or three. Prereq: 15HIST300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HIST407 Latin American Film & History to 1900
Introduces students to Latin American History and culture through film, readings, class discussion and lectures. Goal is to explore significant influences which have molded Latin American history from the conquest to the twentieth century. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST408 Latin American Film and History After 1900
This course introduces students to the current history of Latin America through an exploration of contemporary revolutions. The term "revolution" is construed widely to encompass not only revolutions from the left, such a Cuba, but those movements that bring revolutions in mores, attitudes or gender roles. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

History

15HIST410 The Origins of the Modern American Presidency to 1945
This course would begin with a brief overview of the Constitutional Convention and the Founding Fathers views and intentions of what the Executive should constitute. The focus of the course would be the years 1896 to 1945. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST411 Modern American Presidency Since 1945
To examine and evaluate the growth of the Modern American Presidency since 1945: understanding dynamics of presidential power including its uses, abuses, and limitations. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST413 History of the American City
(Formerly American Urban History). The emergence, development, and role of the modern city. Offered alt. yrs. Prereq: 30ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST414 The Tudors
England's transition from Medieval to Modern. Personal lives of the Monarchs; centralization of governmental and judicial systems; Protestant Reformation, radicalization, return to Catholicism, and the Elizabethan Protestant Church. (Henry VII, Edward VI, Mary I and Elizabeth I). BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST415 History of Cincinnati
The study of Cincinnati's history using important articles and monographs. Particular attention is paid to industrial development, racial segregation, and suburbanization. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST417 Slavery in America
This course will examine the development of race-based chattel Slavery in British North America, its impact on Africa and African Americans, and its eventual demise in the United States. Prereq: 30ENGL103. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST418 The American Frontier
The conquest, settlement, and development of the frontier from a multicultural perspective: how frontier experiences shaped the development of the United States. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST419 The Reformation: Reformation and Fanaticism
The Reformation of the 16th century will be examined along with the religious, political, social, economic, and intellectual changes it spawned. Offered alt. yrs. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST420 The 1960s Experience
Social, cultural and political aspects of one of America's most volatile and divisive decades are examined. What legacies did this generation leave to us. Prereq: 15ENGL102. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST421 Technology and Culture in American History
Course provides an introduction to the history of technology in the United States and its social and cultural impact on the lives of Americans (Colonial to present). BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST425 U.S. Women's History
The history of women in the pre-Columbian era to 1890. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

History

15HIST426
U.S. Women's History
15-075-425. From 1890 to present. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST427
The American Experience in Vietnam
This course acquaints students with the major issues concerning American involvement in Vietnam, focusing on the years 1954-1975. Prereq: 30ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST429
The United States and World War II
This course focuses on America's entry and participation in World War II. Particular attention is devoted to the social history of America's home front and the war's enduring legacy. Prereq: 30ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST431
Hilter and the Nazi Party
The formation of the Nazi Party, the Beer Hall Putsch, the impact of the Depression. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST432
Hilter and the Nazi Party
The Hitler Chancellorship, the "Seizure of Power," the Nazi Party. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST436
Roots of the Industrial Revolution
A social and economic history course concentrating on the production of food and goods; the conditions that permitted the Industrial Revolution to occur in Great Britain; the lives of the workers. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST437
Soldiers Fought: War and American Society I
Draws material from selected disciplines of the humanities, exploring how and why America has gone to war beginning with the War for Independence to the age of terrorism. The course raises broader moral and ethical issues through the study of war and society. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST438
Soldiers Fought: War and American Society II
Draws material from selected disciplines of the humanities, exploring how and why America has gone to war beginning with the War for Independence to the age of terrorism. The course raises broader moral and ethical issues through the study of war and society. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST440
History of the Civil Rights Movement
This course will examine the history of the African American Civil Rights Movement from the late 19th century to the present with the greatest emphasis placed on the period from 1940 to 1968. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST445
Poverty in America: The Historical Perspective
In this seminar, we will consider the poor, attitudes toward poverty, and the significance of poverty in the United States from the founding of the nation to the present. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST448
The Medieval West
The course covers significant aspects of the period 500-1500 in Western Europe including trends in religious, political, intellectual, social and economic life. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST449
The Medieval West
The course covers significant aspects of the period 500-1500 in Western Europe including trends in religious, political, intellectual, social and economic life. The second offering in a three-part course sequence.
History

15HIST471
History of Rome
middle Republic. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST472
History of Rome
Late Roman Republic, 133-42 B.C. Emphasis is placed on the causes of the fall of the Republic and the major historical figures in the last generation of the Republic. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST473
The Early Empire
Detailed treatment of the Julio-Claudian and Flavian dynasties with an emphasis on secondary scholarship. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST474
Early Greece
Dark Age and Archaic: Emergence of city-state. The early history of Sparta and Athens. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST475
Greece: Pericles
The Age of Pericles and the Fourth Century. The Persian Wars, the great age of Athens, the war between Sparta and Athens. Prereq: 15HIST101, 15HIST102, 15HIST103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST476
Greece: Hellenistic
Alexander the Great and the Hellenistic Age. The life and career of Alexander the Great. The kings that inherited his empire. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST484
World War I
Examines the origins of the war, the impact of the Industrial Revolution on logistics and weapons, and the war plans of the Great Powers. Case studies will be used to examine the nature of Total War. In particular the class will examine the nature of leadership, some of the most prominent battles, as well as the long-term impacts of the war, such as the Russian Revolution and the Treaty of Versailles. Prereq: 15ENGL103. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST485
Film and History of World War II
Propaganda; images of blacks, women, and Jews; newsreels. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15HIST486
Hollywood and History
An in-depth introduction to the ways in which Hollywood has treated historical themes and how this has shaped popular ideas about history. Students learn the critical skills necessary for studying films as primary sources. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST487
History of Christianity
This course will concentrate on pivotal events or turning points in the history of Christianity which have had a profound influence -- both positive and negative-- on the formation of our civilization. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST488
History of Christianity
This course will concentrate on pivotal events or turning points in the history of Christianity which have had a profound influence -- both positive and negative -- on the formation of our civilization. BoK: HP., SE. Credit Level: U. Credit Hrs: 3.00

15HIST491
Making Rebellion: Revolution in the Modern Era
A study of the causes, steps taken, and the results from the English, American, French and Russian revolutions with brief references to revolutionary changes elsewhere. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HIST497
Senior History Seminar I
Writing, editing and final production of in-depth research paper. Students will also learn how to perform peer assessments of other student's work. This is a capstone course for the History Focus of LASS. Prereq: 30HIST201, 30HIST401, 30ENGL103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HIST500
Native American History, East of the Plains, 1500 - present
This course surveys the history of the Native American peoples of the lands that became the United States and Canada, in the region east of the Great Plains. BoK: HP., DC. Credit Level: U. G. Credit Hrs: 3.00

15HIST501
Native American History, West from the Plains, 1500-present
This course surveys the history of the Native American peoples of the lands that became the United States and Canada, in the region extending from the Great Plains to the Pacific Ocean. BoK: HP., DC. Credit Level: U. G. Credit Hrs: 3.00

15HIST502
The Coming of the American Revolution
The British empire and the coming of the American Revolution. Why the revolution? Was it justified? BoK: HP. Credit Level: U. G. Credit Hrs: 3.00

15HIST503
Revolutionary America
The American Revolution -- its development and consequences through the establishment of the United States Constitution. BoK: HP. Credit Level: U. G. Credit Hrs: 3.00

15HIST507
American Culture and Ideas to 1815
The creation of an American culture by Europeans and Africans upon the American continent including religious beliefs, social values and political ideas. BoK: HP. Credit Level: U. G. Credit Hrs: 3.00

15HIST508
American Culture and Ideas: The 19th Century
Examines the ideal of the American individual, the sentimentalization of religion and culture, the understanding of race, and the effects of the Civil War on culture. BoK: HP. Credit Level: U. G. Credit Hrs: 3.00

15HIST509
American Culture and Ideas: The 20th Century
Examines the flourishing consumer culture, the criticism of religion and the rise of scientific values, the effects of World War II and anti-communism on thought, and challenges to traditional views on race and gender. BoK: HP. Credit Level: U. G. Credit Hrs: 3.00

15HIST512
America in the Sixties
Civil rights, black power, the New Left, counterculture, Vietnam, feminism, and gay rights. BoK: HP., SE. Credit Level: U. G. Credit Hrs: 3.00

15HIST513
North America in the Atlantic World 1497-1688
Concentrating on American colonial projects launched by English, Portuguese, French, Spanish, Scottish, Dutch and Swedish adventurers, a survey of the history of North America from the Mississippi valley to the Atlantic coast, from 1497 to 1688. BoK: HP., DC. Credit Level: U. G. Credit Hrs: 3.00

15HIST514
North America in the Atlantic World 1689-1763
Concentrating on colonies maintained by the English, French, and Spanish empires, a survey of the history of North America from the
History

15HIST514
North America in the Atlantic World 1689-1763
Mississippi valley to the Atlantic coast, from 1689 to 1763. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST515
Antisemitism
Introduces students to the definitions, themes, and manifestation of Antisemitism from the Ancient World to the present. Cross-listing with JUDC510 BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST516
History of American National Security Policy
A history of American foreign policy in the nineteenth century to the failure of the Treaty of Versailles including the conduct of American diplomacy and the development of appropriate supporting military and naval policies. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST517
History of American National Security Policy
Investigation in depth of critical historical issues in American foreign policy. Individual research and group participation in class discussion required. Perm. of instr. required. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST519
Coming of the American Civil War, 1848-1860
Ways of life among Americans of the Antebellum eras, slavery and anti-slavery, reasons for sectional conflict leading to secession and war. Prereq: 15HIST111. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST520
American Civil War, 1861-1865
Comparison of the Union and Confederate governments; military, diplomatic, economic, and social factors leading to collapse of Confederacy; Black people in the War. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST521
U.S. Reconstruction
Reunion of North and South after Civil War, failure of Southern Reconstruction, and Black people after slavery. How the limits of reunion shaped America to the present. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST522
The Age of Jefferson
Explores some of the major features of "Jeffersonianism" and its contributions, the relationship between various considerations in understanding the successes and failures of Jefferson's ideas as influences that persisted or disappeared in American life. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST523
The New Nation: 1789-1819
Federalists and Jeffersonians: origin of political parties; War of 1812. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST524
Age of Jackson
Explores several important issues during the early American republic, from 1812 to about 1850, including rapid economic growth, expansion westward, democratization of politics, the reorganization of the workplace, religious revivalism, reform and slavery. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST525
Space, Place and Things: The Material Culture of American History
This course will focus on material culture of America's past, the objects and built environments that can serve as evidence of social trends, just

15HIST526
Issues in Historic Preservation
This capstone course considers issues confronted by preservation professionals and advocates. Through a series of case studies, students engage problems of historic interpretation, political meaning, and economic viability within the ethical framework. Faculty from the several schools and departments that support the Certificate Program in historic preservation select case studies to reflect the diversity of challenges facing preservationists, with particular focus on contemporary, urban cases. Prereq: 23ARCH528. BoK: HP, SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST527
History of Architecture in the Cincinnati Area
Illuminates the history of metropolitan Cincinnati through the study of architectural developments, architects and engineers and their clients, landmarks, and districts. The extensive use if both old and recent images throws vivid light on the manmade environment. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST528
Human Rights and US Foreign Relations
Investigates the major ideologies, movements, and laws from the American Revolution through the Spanish-American Wars that both helped to define American foreign relations during this era and later gave rise to the modern human rights regimes of the 20th and 21st centuries. Topics include the growth of international and universal rights claims, protective personhood, anti-slavery movements, and the international humanitarian law of war. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST529
Human Rights and U.S. Foreign Relations II
Investigates the roles that American people and institutions played in developing a modern regime of human rights as a way to respond to the international effects of mass warfare, genocide, persecution, and poverty since World War I. Topics include comparisons to human rights approaches of other countries and cultures. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST530
Exporting Humanitarian Aid
Investigates the relief, rehabilitation, and development initiatives implemented by nongovernmental organizations, the U.S. government, and intergovernmental organizations in the "long" 20th century in response to humanitarian crises. While often related to parallel developments in the field of human rights, the phenomena covered in this course are more concerned with such "on-the-ground" issues as the mobilization of material resources, "public- private" governing strategies, and the "soft" power of foreign aid. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST531
Women in India and China to 1800
An examination of women's experiences in two countries which contain over half of the world's population and have richly complex civilizations that extend for over four millennia, religious, and literary sources. We will also explore women's roles as divinities and devotees in various traditions of Hinduism, Buddhism, and Taoism. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST532
Women in China and India Since 1800
See 15-075-531. Since 1900. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00
History

15HIST533
Eastern Europe to 1918
Nationalism, liberalism, and industrialization through World War I. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST534
Eastern Europe: Since 1918
National divisions, Fascism and Communism, World War II and its impact. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST535
History of Byzantium
Surveys the history of the distinct Byzantine civilization from 330 CE to the fall of Constantinople in 1453. During its existence, Byzantium preserved the heritage of classical antiquity and forged a new state, society and culture in the Eastern Mediterranean. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST536
History of the Balkans
Major issues in the history of southeastern Europe from the middle ages to present, such as political organization before Ottoman conquest, preservation of national identity, resurrection in the 19th century, modernization, communism. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST537
Medieval Society and Culture
A series of quarter long investigations into topics including rise of cities, technology, church and state, social organization, culture and religion. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST538
Medieval Society and Culture
A series of quarter long investigations into topics including rise of cities, technology, church and state, social organization, culture and religion. The second offering in a two-part course sequence. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST539
Topics in Medieval Society and Culture: Making of The Medieval Economy
This course surveys the history of Medieval Europe from 1075 to 1400, with a focus on social and economic history. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST541
U.S. Economy and Society, 1604-1865
3 ug. or gr. cr. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST542
U.S. Economy and Society, 1865-1920
3 ug. or gr. cr. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST543
World War II Military History
WWII MILITARY HIST BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST544
The American South to 1865
This course will explore the major developments in the history of the American South from its colonial origins through the Civil War. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST545
The American South Since 1865
This course will explore the major developments in the history of the American South from the end of the Civil War to the present. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST546
Museums and Collecting
What are museums for? Who do they serve? Where does their authority to make claims about the world come from? Explores how museums and collections shape interpretations of the world. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST547
Art/Race and Nation: Citizenship and Identity in the United States
Will examine the construction of American identity and citizenship through a study of sculpture, painting, photography and emblematic imagery in social, cultural, political, and scientific contexts, from the early Republic to the 1990s. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST548
Race and Science in the United States
Examines the way scientific concepts and practices have defined racial difference in the US. Spanning the 19th and 20th centuries, the course seeks to better understand the multiple, shifting meanings and uses of race and the participation of the biological, medical and social sciences in constructing them. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST549
American Labor History I
Two-quarter course exploring the economic, social, political, and cultural significance of labor in American history, through a particular focus on the emergence and course of labor movements. The first quarter ends with the institutional legitimation of labor organizations in the twentieth century and the second continues to the present. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST550
American Labor History II
Two-quarter course exploring the economic, social, political, and cultural significance of labor in American history, through a particular focus on the emergence and course of labor movements. Continuation of 15HIST549. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST551
The Reformation
The Calvinist Reformation, the Religious Wars, religious orthodoxy, witchcraft, and the Scientific Revolution. The first of a two-quarter course. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST552
The Reformation
The Calvinist Reformation, the Religious Wars, religious orthodoxy and political absolutism, witchcraft, and the Scientific Revolution. The second of a two-quarter course. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST553
United States, 1875-1900
An analysis of the so-called Gilded Age, with an emphasis on its economics, politics, and the changing nature of society and its institutions in a period of massive economic change. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST554
United States, 1900-1920
Economic, political and social developments, with particular emphasis upon the rise of progressivism, the emergence of interventionist foreign policy, the significance of American entrance into World War I, and the emergence of new movements of wage workers. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST555
U.S. in the Twentieth Century: 1912-1940
From the Progressive Era through the New Deal, including World War I and the Great Depression. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
History

15HIST556
The Great Depression in America 1929-1941
The Great Depression touched all aspects of American life, from questions of class, race, and gender to the transformation of political power. Covering the years 1929 through 1941, this course will employ not only traditional historical sources, but will examine the period through its music, theatre, literature, and film. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST557
U.S. in the Twentieth Century: 1960-Present
From John Kennedy to the present; including the Civil Rights Revolution, the Vietnam War, and the economic dislocations of Post-Industrial America. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST558
Nationalism, Liberalism and the (Re) Making of Europe, 1815-1919
Examines how the ideologies of nationalism and liberalism interacted to reshape the intellectual framework and ultimately the map of Europe through the long nineteenth century. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST559
Fascism in Europe
Examines different fascist and national socialist regimes in the period 1918-1945; their historical roots, their bases of support, their methods of gaining power and their ideologies in theory and practice. Concludes with an examination of extreme right-wing parties and movements in Europe today. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST560
Communism in Europe
Examines different communist and anarchist parties and regimes in Europe in the twentieth century; their historical roots, their bases of support, their methods of gaining power and influence and their ideologies in theory and practice. Concludes with an examination of extreme left-wing parties and movements in Europe today. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST561
Women in European Society, 1850-1850
Discussion of economic, political, social, and intellectual development in European women's history. Emphasis on women's role in the early modern economy, her place in the household, her limited educational opportunities, and early feminist appraisal of women's lives. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST562
Women in European Society, 1850-present
Concentrates on the effect of the Industrial Revolution on women's lives, the growth of an organized women's movement, and women's public activities and employment during the 20th century. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST563
Film and India: Empire and Nationalism
Explores how the past is recorded, reconstructed, and projected in films, newsreels, and documentaries about the British Empire in India, the evolution of Indian nationalism, and the efforts to create independent India. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST565
Tudor England, 1488-1603
An in-depth survey of the reigns of the Tudors from Henry VII through Elizabeth I. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST566
Stuart England, 1603-1714
An in-depth survey of the reigns of the Stuarts from James I through Queen Anne. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST567
History of the Arab-Israeli Conflict
This course traces the origins of the Arab-Israeli conflict from the end of the 19th century when the Palestinian province of the Ottoman Empire became the object of Jewish settlement. Review of the 1956, 1967, and 1973 conflicts. Will assess the prospects for a regional peace settlement. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST568
Nationalist Conflict in the Former Russian and Ottoman Empires: 19th Century to the Present
The course examines the process of state formation and the development of nationalist ideologies in the former Russian and Ottoman Empires. A comparative historical approach is used to explore the rise of nationalism in such diverse areas as Eastern Europe, the Balkans, Transcaucasia, Central Asia and the Near East -- all areas where nation-building occurred later than in Western Europe and the problems of artificial borders and polyglot societies have remained intractable until present. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST570
The Making of the Modern Middle East
War and peace time developments in the Middle East from the mid-19th century to the present, primarily focusing on political, social, economic, and cultural sources. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST571
Media and Middle East History
How North Americans and Europeans learn about the Middle East, and how Middle East peoples present themselves to each other and to the outside world, through telegraph, photography, newspapers, magazines, radio, television, and the internet. Freedom of inquiry and censorship as themes in Middle East history. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST572
Film and Middle East History
Cinema about and from the Middle East and North Africa. Development of "Orient" as theme in modern Western cinema; creation of film industry in Middle East. Sources include film studies, newsreels, documentaries, and feature films from early 20th century to today. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST574
India to 1526
3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST575
Indian Empires: 1526-1905
3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST576
20th Century South Asia
3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST577
U.S. Immigration to 1880
A discussion of the nature of migration and the role of immigrants and their descendents in United States history from colonial times to the present. Treats period to c. 1880. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST578
U.S. Immigration 1880-Present
A continuation of Hist. 577. From c. 1880-present. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST579
Topics in African World Studies
Introduces students to the history of the African presence in Europe 1440-1800. It begins with the Portuguese voyages down the West African coast, continuing with and to the end of the Atlantic slave trade.
**McMicken College of Arts and Sciences**

**History**

15HIST579  
Topics in African World Studies  
Roles and places of Africans in European society will be examined.  
BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST580  
African American History to 1861  
Explores major themes in African American History up to 1861.  
Beginning on the African continent, this course follows African captives across the Atlantic and examines their experience in bondage. Topics covered include development of African American culture and identity and resistance to slavery. BoK: SE., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST581  
African American History 1861-1941  
Surveys the major themes in African American History from the Civil War to WWII. We will examine how freedom expanded and contracted for African Americans as well as how equality has been largely elusive. Topics explored include reconstruction, institution building, Harlem Renaissance, racial violence, and great migration. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST582  
African American History 1941-Present  
Examines the recent trend in U.S. historiography to “internationalize” wider swaths of American history than typically attempted in much previous scholarship. From the U.S. Civil War to WWII, topics considered include emancipation, U.S. imperialism, war, diplomacy, statecraft, race, gender, science, consumerism, labor, citizenship, and migration. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST583  
African American History and Film  
We will examine and critique the ways African Americans and their history has been portrayed on film. We will use actual history and primary sources to critique how that history has been reimagined and reinvented by Hollywood for popular consumption. We will also examine how African Americans have been stereotyped and represented across time. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST584  
U.S. and the World: Civil War to WWII  
Examines the recent trend in U.S. historiography to “internationalize” wider swaths of American history than typically attempted in much previous scholarship. From the U.S. Civil War to WWII, topics considered include emancipation, U.S. imperialism, war, diplomacy, statecraft, race, gender, science, consumerism, labor, citizenship, and migration. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST585  
U.S. and the World: WWII to Present  
Examines the recent trend in U.S. historiography to “internationalize” wider swaths of American history than typically addressed in much previous scholarship. From WWII to present, topics considered include U.S. global hegemony, war, diplomacy, protest, propaganda, gender, citizenship, and migration. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST587  
African American Women’s History  
Chart black women’s unique experience in America from slavery to the present. Examine how black women have confronted the multiple hardships of race, gender and class at various points in this history. Will deconstruct the various stereotypes that have shaped how society has perceived African American women across time. Topics include black women and work, black feminism, black women’s activism, and black women’s representations in modern media BoK: SE., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST588  
Survey of Caribbean History  
An overview of Caribbean History 1492 to the present explores how distinctive cultural and colonial heritages (Spanish, British, French, Dutch, Danish, United States) shaped historical development. Topics include first contacts, piracy, sugar and slavery, de-colonization, the U.S. as a Caribbean power, revolutions (Cuba, Grenada). BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST591  
Individual Work  
To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15HIST592  
Individual Work  
To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15HIST593  
Individual Work  
To be arranged. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15HIST594  
Italian Renaissance  
3 uq. cr. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST595  
Renaissance in Europe, 1500-1600  
Course follows Italian Renaissance Development of court culture; examination of courtly behavior; extensive reading in the literature of the European Renaissance. Prereq: 15HIST594. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST596  
Comparative Working Class History  
Explores the comparative roles of labor movements in the United States, France, Germany, and other western societies. Focus is on the differing impacts of workers'organizations on the economic, social, and political lives of the wider societies from the eighteenth century through the First World War. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST597  
Terrorism and Counter-Terrorism in Europe, 1789- 1945  
This course will examine terrorism from a theoretical perspective and examine a range of terrorist groups and counter-terrorist methods from the French Revolution to the Allied occupation of Germany in 1945. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST598  
Terrorism and Counter-Terrorism in the Modern Era,1945-the Present  
This course examines how terrorism has emerged, evolved and expanded from a global perspective as well as providing a theoretical analysis. It will also examine specific case studies from 1945 to the present day. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST599  
Introduction to Mediterranean History  
Familiarizes students with the role of the Mediterranean Sea as a connector and divider of an array of civilizations that started and flourished along its coast from pre-classical to early modern times. Also explores problems defined in recent years related to this area. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST600  
Topics in Latin American History  
This course will concentrate on ten topics in Latin American history from the colonial period through the 19th century. Students will read intensively on each topic and engage in lengthy analysis and discussion. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST601  
Modern Mexico  
Examines the history of Mexico from independence to the present,
History

15HIST601 Modern Mexico
emphasizing Mexico's path to national consolidation, struggles for political and economic justice, both by diverse sectors of the population and as a country within the world economy. BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST602 Drugs and the Supernatural in the Americas
This course will examine the roots of today's war on drugs from the 16th century to the present. Long standing links between drugs and understandings of the supernatural will be examined. BoK: SE., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST604 EUROPE 1790-1914
EUROPE 1790-1914 BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST605 EUROPE 1914-PRESENT
EUROPE 1914-PRESENT BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST607 The Revolutionary Tradition in France, 1789-1871
For a century following the Revolution of 1789, France continually experimented with how to create a society based on republican principles and human rights. This course explores this French revolutionary tradition as it impacted both politics and social life. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST608 The Transformation of France, 1871-Present
From 1871 to the present, France has faced the destruction of two world wars, the advent of a modern consumer society, the end of the French empire, and an inflow of immigrants from Africa and Asia. This course explores these important social and political changes and their repercussions on French national identity today. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST610 Public History Practicum
Offers a practical orientation to and exploration of various fields encompassed under the rubric "public history." Guest lecturers and the instructor will discuss the possibilities and problems, strategies and skills associated with the wide range of historical practices dedicated to presenting the past to the public. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST611 Cities in America, 1625-1900
Examines the growth of American Cities and the development of an urban culture through the nineteenth century. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST612 History of Cincinnati
Discusses Cincinnati's place among nation's cities internal form and structure, "neighborhoods", economy, institutions, and politics. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST614 Environmental History of North America to 1900
A historical study of the changing relationships between human beings and the natural world, including: the effects of the natural world on culture and society; the effects of human activity on the environment; and the changing attitudes of different Americans toward nature. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST615 Twentieth-Century American Environmental History and Policy
A historical analysis of the changing American environment and the development of American environmentalism in the twentieth century. BoK: HP., SE. Credit Level: U, G. Credit Hrs: 3.00

15HIST616 Twentieth Century American Cities
This course will focus on the changing structure of American urban society throughout the twentieth century. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST630 HIST RESCH&COMPUTE
HIST RESCH&COMPUTE BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST641 Eastern Europe
3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST642 Eastern Europe
3 ug. cr. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST645 Eighteenth-Century Britain
An examination of themes and topics in British society, culture, politics, and economics from the parliamentary creation of 'Great Britain' in 1707 to its newly negotiated relationship with Ireland and continental Europe during the French Revolutionary and Napoleonic wars. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST646 19TH CENT BRITAIN
19TH CENT BRITAIN BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST647 Twentieth-Century Britain
Themes and topics in British society, culture, and policies during the twentieth century. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST648 Masculinities in Britain and America since 1850
Explores what it was meant 'to be a man' in 19th and 20th century Britain and USA. Examines changes and continuities in configurations of masculinity as they have been manifested in the spheres of the home, the workplace, politics, militarism and sexuality, and represented in media of popular culture. The relational aspect of gender, with masculinity discussed consistently in relation to femininity. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST650 WOMEN WRITERS OF THE RENAISSANCE
Lecture/discussion course involving close reading and discussion of the humanist works of female writers working in Renaissance Europe, primarily Italian but others as well BoK: DC., HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST659 European Diplomatic History: 1919-Present
3 ug. cr. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

15HIST661 China from Prehistory to the Ninth Century
This course covers the survey of Chinese history from the paleolithic period to early modern China. The focus is on how China evolved institutions, political philosophies, and an economy that gave rise to an imperial system dominated by a theoretical all-powerful emperor assisted by a centralized bureaucracy based on a competitive civil service examination system. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
History

15HIST662
China from the 9th to the 19th Century
This course continues the survey of Chinese history from medieval China to the threshold of Modern China. The interpretive issues are how China achieved early "modernity" when compared to medieval Europe, and how it "stagnated." BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST663
Chinese History: Age of Revolution, 1874 to present
Chinese efforts to modernize their state and society. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST664
Rise of Modern Japan: 1830-Present
A survey of Japan from the mid-eighteenth century to the present, with emphasis on how the Japanese society, culture, and economy underwent rapid transformation. Translation of Japanese works will be assigned as texts for discussion. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST670
An Introduction to Roman Private Law
A course in roman Private Law. It is designed to introduce students to a complex and sophisticated legal system that is in many ways fundamentally different from our own, but which affords a valuable historical and philosophical perspective for students of modern law. Two lectures, one discussion section per wk. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

15HIST675
Russia
The rise of Moscow as a new center of power. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST676
Russia
Russia in the 18th century. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST677
Russia Under the Old Regime: 1800-1894
Russia under the Old Regime from 1800-1894. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST678
Russia between Reform and Revolution, 1855-1917
This course provides an overview of Russia during the last decades of tsarist rule and focuses both on key issues relating to Russia's general social, economic, cultural, and political development as well as on the stories of prominent figures of the period such as Tolstoy, Dostoevsky, Lenin, and Russia's last tsar, Nicholas II. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST679
Soviet Union Under Stalin and His Successors: 1924-Present
Russia 1917 to present BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST680
History of Sexuality in American
A social history of sexuality in the United States from the eighteenth century to the present. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST683
Gender and Latin American History to 1900
Explores relationships between men, women and in the family from precontact Latin America through the nineteenth century. Topics include gender in Pre-Columbian indigenous societies, in Spain, during the conquest. Other themes include gender and sexuality, illegitimacy, the family, and male and female occupations (priesthood, military, female religious, economic pursuits). BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST684
Gender and Latin American History After 1900
Explores relationships between men, women and in the family during the twentieth century in Latin America. Topics include the gendered nature of popular culture, work, politics, suffrage, feminism, revolution and terrorism. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00

15HIST700
Language Intensive Reading
Taken concurrently with a course numbered 500 or above and listed in the Department of History's Guide to History Courses as available for "language intensive credit." Two credit hours will be awarded to the student who, in his or her work in the concurrent course, conducts at least 50% of the reading in a language other than English. Credit Level: G. Credit Hrs.: 2.00

15HIST703
U.S. Women's History
To 1890. Work, sexuality, and family life; class, racial, and ethnic diversity; participation in politics, social reform and feminist movements. Additional reading and writing assignments for graduate students. Credit Level: G. Credit Hrs: 3.00

15HIST704
U.S. Women's History
From 1890 to present. Additional reading and writing assignments for graduate students. Credit Level: G. Credit Hrs: 3.00

15HIST707
Latin American Film and History to 1900
Introduces students to Latin American History and culture through film, readings, class discussion and lectures. Goal is to explore significant influences which have molded Latin American History from the conquest to the twentieth century. Credit Level: G. Credit Hrs: 3.00

15HIST708
Latin American Film and History After 1900
Introduces students to the current history of Latin America through an exploration of contemporary revolutions. The term "revolution" is contured widely to encompass not only revolutions from the left, such as Cuba, but those from the right (Argentina.) Also included are movements that bring revolutions in mores, attitudes or gender roles. Credit Level: G. Credit Hrs: 3.00

15HIST710
Fall Graduate Workshop in European Studies
Introduces students to the methodologies and interdisciplinary approaches to the field of European Studies through a series of bi-weekly workshops (2 hours). Five faculty from three departments will present their work and lead discussion on a common theme. Credit Level: G. Credit Hrs: 6.00

15HIST711
Graduate Seminar in European Studies I
This seminar will focus on common themes related to European Studies. Students will begin to develop a research topic to be written in Spring Quarter. This is the first part of a two-quarter sequence. Credit Level: G. Credit Hrs: 6.00

15HIST712
Graduate Seminar in European Studies II
This seminar will focus on a common theme related to European Studies. Students will write a research paper on a topic of their choice and present it at a European Studies conference involving students and faculty. This is the second part of a two quarter sequence. Credit Level: G. Credit Hrs: 6.00

15HIST715
History of Cincinnati
In this mixed lecture and discussion class students will study Cincinnati's history using important articles and monographs. Particular attention will be paid to industrial development, racial segregation, and suburbanization. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15HIST716</td>
<td>Fall Graduate Workshop in European Studies</td>
<td>6.00</td>
<td>Introduces students to the methodologies and interdisciplinary approaches to the field of European Studies through a series of bi-weekly workshops (2 hours). Five faculty from three departments will present their work and lead discussion on a common theme. Credit Level: G. Credit Hrs: 6.00</td>
</tr>
<tr>
<td>15HIST717</td>
<td>Graduate Seminar in European Studies I</td>
<td></td>
<td>This seminar will focus on common themes related to European Studies. Students will begin to develop a research topic to be written in Spring Quarter. This is the first part of a two-quarter sequence Credit Level: G. Credit Hrs: 6.00</td>
</tr>
<tr>
<td>15HIST718</td>
<td>Graduate Seminar in European Studies II</td>
<td></td>
<td>This seminar will focus on a common theme related to European Studies. Students will write a research paper on a topic of their choice and present it at a European Studies conference involving students and faculty. This is the second part of a two quarter sequence. Credit Level: G. Credit Hrs: 6.00</td>
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<tr>
<td>15HIST720</td>
<td>Literature of Middle Eastern and North African History</td>
<td></td>
<td>Surveys influential and recent scholarly literature on Middle Eastern and North African history. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00</td>
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<tr>
<td>15HIST721</td>
<td>Literature of American History 1607-1820</td>
<td></td>
<td>Surveys influential and recent scholarly literature on American history from 1607 to 1820. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00</td>
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<tr>
<td>15HIST722</td>
<td>Literature of American History 1820-1920</td>
<td></td>
<td>Surveys influential and recent scholarly literature on American history from 1820 to 1920. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00</td>
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<tr>
<td>15HIST723</td>
<td>Literature of American History 1920-Present</td>
<td></td>
<td>This seminar surveys influential and recent scholarly literature on American history since 1920. The students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00</td>
</tr>
<tr>
<td>15HIST727</td>
<td>Colloquium in American History</td>
<td></td>
<td>Surveys influential and recent scholarly literature on a specific topic in American history. Topics change from year to year. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00</td>
</tr>
<tr>
<td>15HIST728</td>
<td>Colloquium on World History</td>
<td></td>
<td>Surveys of influential and recent scholarly literature on a specific topic in world history. Topics change from year to year. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00</td>
</tr>
<tr>
<td>15HIST729</td>
<td>Colloquium on European History</td>
<td></td>
<td>Surveys recent and influential scholarly works on a specific topic in European history. Topics change from year to year. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00</td>
</tr>
</tbody>
</table>

H—University Honors course.  
This course examines major historiographical themes in modern Latin novels, parliamentary reports, newspapers and diplomatic records. Credit Level: G. Credit Hrs: 6.00

15HIST746
Gender, Empire and War in Modern Europe
Introduces students to major developments in gender roles which have taken place in Europe since mid-19th century. Focuses on how gender roles in Europe were profoundly linked to Europe’s overseas empires and to the two world wars. Credit Level: G. Credit Hrs: 6.00

15HIST747
Literature of Ottoman History 1650-1918
Surveys influential and recent scholarly literature of the history of the Ottoman Empire from 1650 to 1928. Students are introduced to the partice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST748
Literature of Latin American History
Surveys influential and recent scholarly literature on the history of Latin America. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST749
Literature of Modern Indian History
Surveys influential and recent scholarly literature on the history of modern India. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST751
History of Germany: Rise of Modern Germany
Legacy from the Middle Ages; impact of the Reformation; rise of Prussia and the problem of German particularism. Credit Level: G. Credit Hrs: 3.00

15HIST752
History of Germany: The Nineteenth Century
Impact of the French Revolution; growth of nationalism, the German Confederation, Austro-Prussian struggle for supremacy; the Bismarckian Empire. Credit Level: G. Credit Hrs: 3.00

15HIST753
History of Germany: 1900-1945
History of Germany from 1900-1945. Credit Level: G. Credit Hrs: 3.00

15HIST754
History of Germany since 1945
Post-World War II Germany: the two Germanies and reunification. Credit Level: G. Credit Hrs: 3.00

15HIST755
Atrocities and Memory in the Middle East World War
Study of the evidence, the theoretical and comparative studies of atrocities and memory, evolution of human rights discourses, memory of history, and role of memory construction in forming national identities. Extensive primary and secondary source readings, discussions and essays. Credit Level: G. Credit Hrs: 6.00

15HIST756
History of the British Empire, 1763-1947
Explores the social, cultural, political and economic history of the British Empire in America, Africa, and Asia through travel writings, memoirs, novels, parliamentary reports, newspapers and diplomatic records. Credit Level: G. Credit Hrs: 6.00

15HIST757
Topics in Latin American History I
This course examines major historiographical themes in modern Latin American History. Credit Level: G. Credit Hrs: 6.00

H=University Honors course.
History

15HIST775
Greece: Pericles
Greece: The age of Pericles and the fourth century. The social and political history of Greece in the fifth and fourth centuries B.C. Prereq: 15HIST101, 15HIST102, 15HIST103. Credit Level: G. Credit Hrs: 4.00

15HIST776
Greece: Hellenistic
Greece: Alexander the Great and the Hellenistic Period. The social and political history of the Greek world in the fourth to the second centuries B.C. Credit Level: G. Credit Hrs: 4.00

15HIST777
Old World and New World Frontiers
Readings course with focus on key questions relating to the history of frontier societies and cross-cultural contact in Europe, Asia, and the Americas between the late medieval and modern periods. Credit Level: G. Credit Hrs: 5.00

15HIST778
Literature of Modern Chinese History
Surveys influential and recent scholarly works on modern Chinese History. Students are introduced to the practice of reading scholarly works critically and assessing them. Credit Level: G. Credit Hrs: 6.00

15HIST780
Land and Peasantry in Modern Europe
Examines the changing and conflicting attitudes towards the land and the peasantry in Twentieth Century Europe from a political, economic and social-cultural perspective through literature and government legislation. Credit Level: G. Credit Hrs: 6.00

15HIST785
Film and History of World War II
Propaganda; images of Blacks, women, and Jews; newsreels. Credit Level: G. Credit Hrs: 3.00

15HIST786
Hollywood and History
An in-depth introduction to the ways in which Hollywood has treated historical themes and how this has shaped popular ideas about history. Students learn the critical skills necessary for studying films as primary sources. Credit Level: G. Credit Hrs: 3.00

15HIST787
History of Christianity
This course will concentrate on pivotal events or turning points in the history of Christianity which have had a profound influence—both positive and negative—on the formation of our civilization. Credit Level: G. Credit Hrs: 3.00

15HIST788
History of Christianity
This course will concentrate on pivotal events or turning points in the history of Christianity which have had a profound influence—both positive and negative—on the formation of our civilization. Credit Level: G. Credit Hrs: 3.00

15HIST789
History and Narrative: The Work of Paul Ricoeur
Seminar comprising a close reading of Paul Ricoeure's three volume work, Time and Narrative. We will then use this work to explore some of the philosophical premises of writing history as a story which has meaning. Credit Level: G. Credit Hrs: 5.00

15HIST800
Cincinnati Seminar on the City
Aims to bring together a diverse group of people (by age, gender, religion, occupation, ethnicity, and race) in informed discussions of the problems and promise of city life with special reference to the United States and Cincinnati. Prereq.: Masters and doctoral. Credit Level: G. Credit Hrs: 1.00

15HIST801
Cincinnati Seminar on the City
Aims to bring together a diverse group of people (by age, gender, religion, occupation, ethnicity, and race) in informed discussions of the problems and promise of city life with special reference to the United States and Cincinnati. The second offering in a three-part course sequence. Prereq.: Masters and doctoral. Credit Level: G. Credit Hrs: 1.00

15HIST802
Cincinnati Seminar on the City
Aims to bring together a diverse group of people (by age, gender, religion, occupation, ethnicity, and race) in informed discussions of the problems and promise of city life with special reference to the United States and Cincinnati. The third offering in a three-part course sequence. Prereq.: Masters and doctoral. Credit Level: G. Credit Hrs: 1.00

15HIST815
Interdisciplinary Seminar: Frontiers of Urban Research
Current research trends and techniques in the shared urban aspects of geography, history, political science, and sociology. For advanced graduate students wanting early reactions to theses or dissertations. Admission only with faculty approval. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 5.00

15HIST816
Interdisciplinary Seminar: Frontiers of Urban Research
Current research trends and techniques in the shared urban aspects of geography, history, political science, and sociology. For advanced graduate students wanting early reactions to theses or dissertations. Admission only with faculty approval. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 5.00

15HIST851
Masters Independent Readings
Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST872
Research
Research for work on Master's thesis. Credit Level: G. Credit Hrs: 1.00-15.00

15HIST873
Seminar in Theory and Practice of Teaching
Restricted to graduate assistants. Hrs. to be arranged. Credit Level: G. Credit Hrs: 4.00

15HIST881
Directed Readings
Variable cr. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST882
Directed Readings
Variable cr. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST883
Directed Readings
Variable cr. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST885
Independent Study
Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST886
Independent Study
Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-8.00

15HIST887
Independent Study
Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-8.00

H=University Honors course.
Human Resources

15HUMR101 Introduction to Human Resource Statistics
A basic introduction to the concepts of descriptive statistics, and statistical methods that may be used in the workplace (e.g., mean, medium, mode). How workplace issues are related to statistical procedures. Prereq: 30MATH121. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HUMR252 Concepts of Human Resource Management II
The continuation of Concepts of Human Resource Management. Performance appraisal, compensation, employee incentive and benefits, labor relations, and international human resource management are examined. Prereq: 30HUMR251. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HUMR261 Introduction Human Resources
(Formerly 30GMGT261). General introduction and overview of human resource functions, concepts and issues. Functions include: recruitment and selection of labor force; training and development, performance appraisal, compensation administration; EEO/Affirmative Action; labor relations; and government regulations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HUMR327 History of American Business
Historical overview of development of commerce and management concepts in the United States. Course examines influences of U.S. Constitution, Supreme Court decisions, transportation, government regulations, social change, international competition in relation to contemporary American business. Prereq: 30ENGL103, 30COMM1171. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15HUMR423 Teaching Assistant Practicum for LER Students
Supervised experience as teaching assistant for labor and employment relations courses. Can take for three quarters. (Formerly ECON423) BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HUMR452 Employment Law II
Continuation of the analysis of employment-related statutes and case holdings on the business environment. The focus will be on Federal and State laws affecting employment decisions, and how Human Resource managers must align organizational policies and practices accordingly. Prereq: 30HUMR451. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15HUMR476 Employment Law
Principles which regulate, direct and protect management and labor. Rules, interpretations under the statutes, decisions; leading cases, landmark developments, National Labor Relations Act. (Formerly ECON 476) Prereq: 15ECON102, 15ECON103. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15HUMR481 Contemporary Issues in Organizational Behavior
(Formerly 30GMGT481). The course focuses on current research on individual and group culture in organizations. The effects of corporate downsizing & reengineering on work group behavior will be examined. The course will also focus on developing assessment skills to better explain, predict, and control individual, group and organizational culture. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15HUMR482 Contemporary Issues in Organizational Behavior II
A continuation of 30HUMR481. Laboratory simulation and/or team
Human Resources

15HUMR482
Contemporary Issues in Organizational Behavior II
Research projects are used to pursue advanced topics. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15HUMR495
Collective Bargaining: Negotiation/Administration
An analytical review of the impact the current Labor Relations and Collective Bargaining environment has on the business community as a whole, including the implications of the theoretical framework of administration and negotiating procedures. Prereq: 30HUMR252. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Interdisciplinary

15INTR101
Environment Science I
Interdisciplinary introduction to basic ecological concepts; laws of thermodynamics; biogeochemical cycles; human impact upon biomes; economics and politics of pollution; risk assessment; the world population crisis. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15INTR102
Environmental Science II
Interdisciplinary examination of water resources, use, and conservation; drinking water purification; wastewater treatment; air pollution sources and control; solid and hazardous waste; environmental law; global environmental problems. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15INTR103
Environmental Science III
Interdisciplinary examination of endangered species, wildlife and wilderness; the energy crisis; perpetual, renewable, non-renewable energy resources; conservation, nuclear energy; pesticides; land-use planning; parks, refuges, wetlands; sustainable development; environmental ethics. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

15INTR300
Issues in Medicine and the Humanities
Utilizes various genres of literature to explore social and ethical issues concerned with medical treatments, illnesses and disability. Taught in conjunction with a 300-level nursing course. Prereq: 15ENGL102. BoK: SE, HU. Credit Level: U. Credit Hrs: 3.00

15INTR301
SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR302. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR302
SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR301. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR303
SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR302. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR304
SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR305
SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE Faculty Coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program in CECE. Prereq: 15INTR402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Interdisciplinary

15INTR505
Interdisciplinary Capstone
Course will provide a capstone experience for senior BIS/INTERDISCIPLINARY students. Students will develop individual capstone proposals in consultation with their BIS program advisors. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

15INTR561
Interdisciplinary Capstone Seminar I
An interdisciplinary course built around a timely theme. Student is asked to write several short papers on topics related to the course theme and/or to their completion of the baccalaureate degree. The theme is explored through reading and group discussions. This course must be followed by INTR562. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR562
Interdisciplinary Capstone Seminar II
A continuation of 30INTR561. The primary objective is to complete and present a senior paper and/or project related to both the theme covered in INTR561 and to the student's major area of study. Prereq: 15INTR561. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15INTR774
Introduction to Literary Theory I
Interdisciplinary course on literary theory. Taught in English. Emphasis on Aristotle's Poetics and the major essays by literary critics and aestheticians up to the twentieth century (Plato, Horace, Longinus, Sydney, Dryden, the Romantics, T.W. Eliot). The course focuses on both theoretical issues (such as imitation, the relationship between content and form, the sublime, the definition of genres) and practical exercises in criticism. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15INTR775
Literary Theory II
A study formalism, structuralism, and post-structuralism. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15INTR776
Literary Theory III
Interdisciplinary course on literary theory. Taught in English. Emphasis on literary psychoanalytical criticism, Marxist criticism, reader-response theories and gender studies. Practical exercises on various texts. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

Irish Languages

15IRSH111
Modern Irish I
Modern Irish language and culture. First quarter in a 6-quarter sequence. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15IRSH112
Modern Irish II
Modern Irish language and culture. Second quarter in a 6-quarter sequence. Prereq: 15IRSH111. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15IRSH113
Modern Irish III
Modern Irish language and culture. Third quarter in a 6-quarter sequence. Prereq: 15IRSH112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15IRSH114
Intermediate Modern Irish 1
Follow-up course to first year Irish with readings in Irish literature and folklore. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15IRSH115
Intermediate Modern Irish 2
Intermediate Irish language and culture 5th qtr. in the 6-quarter sequence. Prereq: 15IRSH114, 15ENGC667. BoK: HU, DC. Credit

15IRSH116
Intermediate Modern Irish 3
Intermediate Irish language and culture. 6th qtr in the 6-quarter sequence. Prereq: 15IRSH115, 15ENGC669. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15IRSH501
Modern Irish I
Students wishing to receive graduate credit for courses in Modern Irish must sign up for this number and attend the undergraduate section of 15IRSH111 Credit Level: G. Credit Hrs: 3.00

15IRSH502
Modern Irish II
Students wishing to receive graduate credit for courses in Modern Irish sign up for this number and attend the undergraduate section of 15IRSH112. Prereq: 15IRSH111. Credit Level: G. Credit Hrs: 3.00

15IRSH503
Modern Irish III
Students wishing to receive graduate credit for courses in Modern Irish sign up for this number and attend the undergraduate section of 15IRSH113. Prereq: 15IRSH112. Credit Level: G. Credit Hrs: 3.00

15IRSH504
Intermediate Modern Irish 1
Follow-up course to first year Irish with readings in Irish literature and folklore. Graduate course linked to 15-IRSH-114. Credit Level: G. Credit Hrs: 3.00

15IRSH505
Intermediate Modern Irish 2
Graduate number for students attending 15Irsh116 Prereq: 15IRSH504. Credit Level: G. Credit Hrs: 3.00

15IRSH506
Intermediate Modern Irish 3
Graduate number for students attending 15IRSH116. Prereq: 15IRSH505. Credit Level: G. Credit Hrs: 3.00

Italian

15ITAL101
Basic Italian I
Basic Italian language and culture. First quarter in the 3-quarter sequence that fulfills the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15ITAL102
Basic Italian II
Basic Italian language and culture. Second quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15ITAL103
Basic Italian III
Basic Italian language and culture. Third quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15ITAL111
Extended Basic Italian 1
Basic Italian language and culture. First quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ITAL112
Extended Basic Italian 2
Basic Italian language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL111. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Italian

15ITAL113 Extended Basic Italian 3
Basic Italian language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL112. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ITAL114 Extended Basic Italian 4
Basic Italian language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL113. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ITAL115 Extended Basic Italian 5
Basic Italian language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15ITAL114. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ITAL116 Extended Basic Italian 6
Basic Italian language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirements. Prereq: 15ITAL115. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15ITAL121 Elementary Italian
Basic grammar and conversation; emphasis on pronunciation; study of selected texts set to music. Primarily for CCM students; open to others with departmental approval. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL122 Elementary Italian
Basic grammar and conversation; emphasis on pronunciation; study of selected texts set to music. Primarily for CCM students; open to others with departmental approval. The second offering in a three-part course sequence. Prereq: 15ITAL121. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL123 Elementary Italian
Basic grammar and conversation; emphasis on pronunciation; study of selected texts set to music. Primarily for CCM students; open to others with departmental approval. The third offering in a three-part course sequence. Prereq: 15ITAL122. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL251 Italian Composition and Conversation
Review of grammar, improvement of writing skills; oral practice in Italian. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL252 Italian Composition and Conversation
Italian Comp & Conv Prereq: 15ITAL251. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL253 Italian Composition and Conversation
Italian Comp & Conv Prereq: 15ITAL252. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15ITAL314 Italian Film
An introduction to the rich world of Italian film, film-makers, and cultural backgrounds BoK: DC. Credit Level: U. Credit Hrs: 3.00

15ITAL550 Italian Study Abroad
For students participating in an established exchange program in the Italian-speaking world. Permission of Department required. Perm of Department. BoK: DC. Credit Level: U, G. Credit Hrs: 9.00-18.00

15ITAL571 Italian Culture
Introduction to Italian Culture. Each student will research a specific topic such as Italian food-ways, folklore, art, music, architecture or popular culture in preparation for a study tour in Italy. Perm of Instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15ITAL572 Andiamo in Italia
Explorations of Italian culture through visits to a specific region of Italy, including artistic and culinary aspects of the region. Student research topics will be presented during the tour. Departure in early September, visit of 10-14 days. Perm of Instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ITAL581 Elementary Conversational Italian
For beginners. Basic grammar and conversation; emphasis on pronunciation. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL582 Elementary Conversational Italian
For beginners. Basic grammar and conversation; emphasis on pronunciation. The second offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL583 Elementary Conversational Italian
For beginners. Basic grammar and conversation; emphasis on pronunciation. The third offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL584 Intermediate Conversational Italian
Continuation of Ital. 583. Review of grammar; emphasis on reading and conversation. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL585 Intermediate Conversational Italian
Continuation of Ital. 583. Review of grammar; emphasis on reading and conversation. The second offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL586 Intermediate Conversational Italian
Continuation of Ital. 583. Review of grammar; emphasis on reading and conversation. The third offering in a three-part course sequence. Qualified undergraduates may be admitted by approval of undergraduate adviser and instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15ITAL591 Independent Study
Previous written approval of inst. and undergraduate advisor required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ITAL592 Independent Study
Previous written approval of inst. and undergraduate advisor required. Perm. of Dept. of RLL. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15ITAL593 Independent Study
Previous written approval of inst. and undergraduate advisor required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

H=University Honors course.
Japanese Languages and Cultures

15JAPN101
Basic Japanese I
Basic Japanese language and culture. First quarter in the 3 quarter sequence to fulfill the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN102
Basic Japanese II
Basic Japanese language and culture. Second quarter in the 3 quarter sequence that fulfills the A&S language requirement. Prereq: 15JAPN101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN103
Basic Japanese III
Basic Japanese language and culture. Third quarter in the 3 quarter sequence that fulfills the A&S language requirement. Prereq: 15JAPN102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN111
Extended Basic Japanese I
Basic Japanese language and culture. First quarter in the extended 6 quarter sequence to fulfill the A&S language requirement. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN112
Extended Basic Japanese II
Basic Japanese language and culture. Second quarter in the extended 6 quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA101. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN113
Extended Basic Japanese III
Basic Japanese language and culture. Third quarter in the extended 6 quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA102. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN114
Extended Basic Japanese IV
Basic Japanese language and culture. Fourth quarter in the extended 6 quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA103. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN115
Extended Basic Japanese V
Basic Japanese language and culture. Fifth quarter in the extended 6 quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA201. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN116
Extended Basic Japanese VI
Basic Japanese language and culture. Sixth quarter sequence to fulfill the A&S language requirement. Prereq: 15ASIA202. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JAPN201
Second Year Japanese I
Intermediate Japanese language and culture. First quarter in a three quarter sequence. Prereq: 15JAPN103. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN202
Second Year Japanese II
Intermediate Japanese Language and culture. Second quarter in a 3 quarter sequence. Prereq: 15JAPN201. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN203
Second Year Japanese III
Intermediate Japanese language and culture. Third quarter in a 2 quarter sequence. Prereq: 15JAPN202. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15JAPN301
Japanese Composition and Conversation 1
Class conducted in Japanese, using readings from various subject areas. Proficiency in reading and speaking Japanese will be stressed. The first offering in a three-part course sequence. Prereq: 15JAPN203. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN302
Japanese Composition and Conversation
Class conducted in Japanese, using readings from various subject areas. Proficiency in reading and speaking Japanese will be stressed. The second offering in a three-part course sequence. Prereq: 15JAPN301. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN303
Japanese Composition and Conversation 3
Advanced Japanese language and culture. Third quarter in the 3 quarter sequence. Prereq: 15JAPN302. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN364
Japanese Language and Culture I for International Co-op program
This course follows the summer course and is designed for students who are visiting Japan to work and/or study in the future. The students will review the basic grammatical items and gradually develop their ability to comprehend authentic materials in listening and reading goals, increase technical vocabulary and the ability to make professional presentations at work and improve phone and written communication skills. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN365
Japanese Language and Culture II for International Co-op Program
This course follows the fall course. It is designed to build the pre-advanced level of four language skills in Japanese -- listening, speaking, reading, and writing -- for students who are visiting Japan to work and/or study in the future. The opportunity to develop the ability to extract required information quickly will be provided. The course will also increase the student's understanding of Japanese business practices. Prereq: 15JAPN364. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JAPN581
Japanese Independent Study
Individual research projects requiring prior faculty approval. Cr. and hrs. to be arranged. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-5.00

15JAPN501
Basic Japanese I for graduates.
For graduate beginners, emphasis on spoken modern Japanese; mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The first offering of a three-part course sequence. Credit Level: G. Credit Hrs: 3.00

15JAPN502
Basic Japanese II for Graduates
For graduate beginners, emphasis on spoken modern Japanese; mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The second offering of a three-part course sequence. Credit Level: G. Credit Hrs: 3.00

15JAPN503
Basic Japanese III for Graduates
For graduate beginners emphasis on spoken modern Japanese; mastery of Hiragana and Katakana and up to 200 Japanese characters is also expected. The third offering of a three-part course sequence. Credit Level: G. Credit Hrs: 3.00

15JOUR214
Introduction to Journalism
Backgrounds to an understanding of the press and the principles of news writing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Journalism

15JOUR215
News Writing and Reporting
Introduction to contemporary journalism, concentrating on standards and techniques of reporting. May not be audited. Limited to 20 students. Prereq: 15ENGL102, 15JOUR214. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR216
Introduction to Photojournalism
A foundation class in the history and aesthetic values of photojournalism with an emphasis on content and composition. Examines the legal and ethical issues involved in photojournalism. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR300
Precision Journalism
Introduces advanced journalism students to technology-based news reporting techniques and instructs them in applying the principles of scientific method to the gathering and preparing of news stories. Emphasizes the use of computers, data bases and the internet to develop meaningful, complex stories. Students work in an internet-connected lab setting and practice how to find data sets, interpret and organize materials from multiple sources to write longer stories intended for publication. The course encourages critical thinking and the methodology of analyzing data as a journalistic tool and has a strong writing component. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR301
Columns and Reviews
A writing-intensive journalism course emphasizing columns and reviews in magazines and newspapers. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR302
Feature Writing
A journalism course focusing on the writing of magazine feature stories. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR303
Copy Editing
Techniques of copy editing with practical work on local publications. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

15JOUR304
Journalism, Law and Ethics
Ethical problems in reporting and editing with case study of communication law. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR305
Journalism Ethics
Reviews the development of major ethical systems and the history of American journalism before concentrating on the ethical standards affirmed by mainstream American reporters, photographers and editors, newspapers, news magazines, radio and TV news and internet sites that focus on news as opposed to commentary. Applies these standards to look at evolving community and professional perceptions of bias v objectivity, privacy v public interest, accuracy v demands of the 24/7 news cycle, truth v error and deception. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR306
Photojournalism
Introduction to the photographic techniques, tools and content issues in visual communication. Explores the methods for communication using photography as a language. Numerous photographic projects. Students are required to have a digital camera. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR400
Digital Imaging
Using the computer for digital alteration to edit, create composite, and alter photographic images. Prereq: 15JOUR306. BoK: NA. Credit Level: H

Journalism

15JOUR400
Digital Imaging
U. Credit Hrs: 3.00

15JOUR418
Advanced Photojournalism
Advanced reportage with emphasis on the photographic essay. Finished projects incorporate the use of computer and/or scanned images for portfolio production. Prereq: 15JOUR306. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR421
Advanced Reporting: Topic
A journalism course that focuses on researching and writing in-depth news stories for newspaper and magazine publication. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR422
Advanced Reporting: Topic
A journalism course that focuses on researching and writing in-depth news stories for newspaper and magazine publication. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR423
Advanced Reporting: Topic
A journalism course that focuses on researching and writing in-depth news stories for newspaper and magazine publication. See department for specific details. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR426
Magazine Writing
Writing and marketing of major length articles. Prereq: 15JOUR215. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR427
Advanced Magazine Writing
Emphasizes core skills (structure, technique, magazine journalistic style, etc.) and the student writer’s mature development of craft, voice and style. Prereq: 15JOUR215, 15JOUR426. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR428
Editing and Design
Covers the fundamentals of editing and designs for print and web applications. Addresses print and web design principles, elements and layout forms, and pagination techniques for the use of typography and digital images, as well as basic HTML coding for creating, mapping, navigating and editing web pages. Prereq: 15JOUR215, 15JOUR303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR499
Journalism Internship
On-the-job experience supervised by an academic adviser. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15JOUR500
Journalism Internship
On-the-job experience supervised by an academic adviser. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15JOUR501
Journalism Internship
On-the-job experience supervised by an academic adviser. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15JOUR502
Magazine Publishing
Simulates real-world professional scenarios by challenging students to work in teams to create concepts for new magazines. Covers the magazine publishing industry: audience, editorial, circulation, and business plans. Prereq: 15JOUR426. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00-4.00
Journalism
15JOUR503
Photojournalism Workshop
An introduction to photojournalism principles and applications including a historical study of documentary photography. Prereq: 15JOUR418. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00
15JOUR504
Photojournalism Workshop
Reports advanced visual production work in print and new media photographic reportage. This documentary photojournalism class uses a wide range of media. Prereq: 15JOUR418. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00
15JOUR505
Photojournalism Workshop
Advanced visual production work with particular emphasis on the picture story of photographic essay. Demands research, visual content focus, photography field research, writing, design, and production. Prereq: 15JOUR418. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00
15JOUR525
Narrative Nonfiction
Students move beyond feature and magazine writing to work on longer narrative nonfiction. Class discussion, assisted by examples of recent nonfiction, focuses on the specific strategies involved in conducting saturation reporting and and as well as the techniques involved in writing narrative nonfiction, including extended dialogue and scene-by-scene construction. Prereq: 15JOUR215, 15JOUR426. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00
15JOUR591
Individual Work
A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00
15JOUR592
Individual Work
A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00
15JOUR593
Individual Work
A course in guided readings which must be negotiated in writing with individual faculty members and approved by the director of undergraduate studies. Perm of Department. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00
15JOUR622
Editing Practices and Principles
A workshop designed to teach the theory and practice of editing, including such important concepts as textuality, levels of edit, and top-down editing. Students become familiar with a variety of stylebooks, including the Associated Press, Chicago, MLA, APA, and the CBE. Students work with both print and electronic texts. Prereq: 15JOUR426. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00
15JOUR624
Journalism Seminar
Journalistic writing with practical training in publication. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00
15JOUR625
Journalism Seminar
Journalistic writing with practical training in publication. The second offering in a three-part course sequence. Prereq.: Perm. of instr. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00
15JOUR626
Journalism Seminar
Journalistic writing with practical training in publication. The third offering in a three-part course sequence. Prereq.: Perm. of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

Judaic Studies
15JUDC101
Basic Hebrew I
Introduction to Hebrew language and culture. First quarter in the 3-quarter sequence that fulfills the A&S language requirement. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00
15JUDC102
Basic Hebrew 2
Introduction to Hebrew language and culture. Second quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00
15JUDC103
Basic Hebrew 3
Introduction to Hebrew language and culture. Third quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC102. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00
15JUDC105
Language Laboratory
Language laboratory for Extended Basic Hebrew 1 BoK: HU, DC. Credit Level: U. Credit Hrs: 1.00
15JUDC106
Language Laboratory
Language laboratory for Extended Basic Hebrew 2 BoK: HU, DC. Credit Level: U. Credit Hrs: 1.00
15JUDC107
Language Laboratory
Language laboratory for Extended Basic Hebrew 3 BoK: HU, DC. Credit Level: U. Credit Hrs: 1.00
15JUDC108
Language Laboratory
Language laboratory for Extended Hebrew 5 BoK: HU, DC. Credit Level: U. Credit Hrs: 1.00
15JUDC109
Language Laboratory
Language laboratory for Extended Hebrew 6 BoK: HU, DC. Credit Level: U. Credit Hrs: 1.00
15JUDC111
Extended Basic Hebrew I
Introduction to Hebrew language and culture. First quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00
15JUDC112
Extended Basic Hebrew 2
Introduction to Hebrew language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC111. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00
15JUDC113
Extended Basic Hebrew 3
Introduction to Hebrew language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

Judaic Studies

15JUDC114
Extended Basic Hebrew 4
Introduction to Hebrew language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC113. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC115
Extended Basic Hebrew 5
Introduction to Hebrew language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC114. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC116
Extended Basic Hebrew 6
Introduction to Hebrew language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15JUDC115. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC120
Biblical Hebrew I
An introduction to the Hebrew of the Bible with basic grammatical understanding sufficient to read simpler narrative passages in the original. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC121
Biblical Hebrew II
Continuation of 30JUDC110. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC122
Biblical Hebrew III
Continuation of 30JUDC111. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC127
History of Jewish Civilization
Jewish civilization as interpreted through Jewish historical, religious, literary, and cultural developments, Biblical to rabbinic period. Fulfils A&S history requirement. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC127H
Honors Jewish Civilization I
Jewish civilization as interpreted through Jewish historical religious literary and cultural developments, Biblical to rabbinic period. One additional hour extra tutorial in addition to regular course BoK: HP. Credit Level: U. Credit Hrs: 4.00

15JUDC128
History of Jewish Civilization
Jewish civilization as interpreted through Jewish historical, religious, literary, and cultural developments, Medieval period. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC128H
Honors Jewish Civilization II
Jewish Civilization as interpreted through historical, religious literary and cultural developments, medieval period. One hour extra tutorial in addition to regular course. BoK: HP. Credit Level: U. Credit Hrs: 4.00

15JUDC129
History of Jewish Civilization
Jewish civilization as interpreted through Jewish historical, religious, literary and cultural developments 1750 to the present. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC129H
Honors Jewish Civilization III
Jewish Civilization as interpreted through historical religious literary and cultural developments 1750 to present. One hour extra tutorial in addition to the regular course BoK: HP. Credit Level: U. Credit Hrs: 4.00

Judaic Studies

15JUDC135
Introduction to Judaism
Introduction to basic concepts, beliefs and practices of Judaism as expressed through its classic literature. Fulfils A&S humanities requirement. Transfer Module. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC145
The Emergence of Secular Jewish Identity and Culture
This course examines the emergence and development of the secular sensibility in Jewish life. Topics include: origins of the phenomenon; historical conditions conducive to the phenomenon; major personalities; and current secular trends in Judaism. BoK: HP., SS. Credit Level: U. Credit Hrs: 3.00

15JUDC190
Monuments to War and Tragedy; Engraving the Mind and Remembrance
Deals with the ways in which we choose to remember tragic events and loss. Students learn the process of engraving the mind and take a closer look at the monuments built to memorialize events. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15JUDC211
Second Year Hebrew 1
Intermediate Hebrew language, literature, and conversation. First quarter in 3-quarter sequence. Prereq: 15JUDC103. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC212
Second Year Hebrew 2
Intermediate Hebrew language, literature and conversation. Second quarter in a 3 quarter sequence Prereq: 15JUDC211. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC213
Second Year Hebrew 3
Intermediate Hebrew language, Literature and conversation. Third quarter in a 3 quarter sequence Prereq: 15JUDC212. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC228
An Introduction to Biblical Study.
(Formerly 30PHIL280) A survey of the manuscripts and texts of the Bible, the historical and literary contexts of the Bible in the ancient Middle East, and an overview of some of the interpretive methods that one can bring to bear on Bible study and scholarship. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC229
Sacred Texts: Hebrew Scriptures
(Formerly 30PHIL241. Old Testament.) Hebrew ideas clarified from the Greek; God, man, spirit, creation, life. Significance of the Prophets and other writings. Leading personalities, ethics, and ideals. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC231
Biblical Poetry
This course will study the poetry of the Bible and its chronological development together with its relationship to common ancient Near Eastern poetic forms. Along the way, attention will be called to the relationship of the poetry to parallel prose narratives. Specifically, students will read portions of Judges, Exodus, Samuel, Job, Psalms, Isaiah, and several of the "Minor Prophets." BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC232
The Other Bible
Study of those extra-biblical books of Jewish and Christian origin that exercised enormous influence on the canonically perceived literature. Specifically, Enoch, several of the Dead Sea Scrolls, and such important Christian literature as the Gospel or Peter and the Gospel of Thomas will be read. BoK: HU. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
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Judaic Studies

15JUDC233 Ancient Stories of Creation
An overview and comparison of different accounts of the creation of the universe and the origins of humankind. The course will focus on excerpts from the Near East, including but going beyond the standard biblical accounts, discussions of modern religious and cultural perspectives on angles. Prereq: 30RELG101. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC235 Chanukah Through the Ages
The Jewish festival of Chanukah provides an illuminating lens to explore the character and development of secular Jewish culture. Based on the story of a cultural struggle between Judaism and Hellenism, Chanukah raises fascinating questions about secularism and religion. Was the adoption of Greek ways (Hellenization) tantamount to idolatry or a cultural matter without religious implications? Was the miracle of Chanukah a secular, military victory of the Maccabees against the Syrian Greeks and to what extent did the Maccabees (later known as the Hasmoneans) establish a secular sovereign Jewish state? Why did the rabbis ignore the secular side of the Chanukah story? Why was Chanukah popular among the secular Zionists? BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC245 Modernity and the Jewish Intellectual Tradition
Follows major development of modern Jewish intellectual currents through the work of some of the most influential Jewish thinkers of the era. Explores how these different thinkers attempted to reconcile a tradition of 3,000 years with the scientific, ethical and cultural dimensions of modern and secular Western civilization. Looks at the origins of modern secular Jewish identity in the seventeenth century in the writings of Spinoza It then examines some of the leading representa - tives of the Haskalah, the Jewish Enlightenment, and it covers the period of German Jewish idealism in the nineteenth century. The course looks at the emergence of the existential interpretation of Judaism in the twentieth century, as well as the emergence of Jewish nationalism as an intellectual and cultural movement. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC252 Introduction to Jewish Literature
Survey of Jewish literature from the Bible to the present. Features texts from major centers of Jewish culture. Authors range from the Bible, Judah HaLevi, Maimonides, and Bialik, Nobel prize winners Agnon and Singer, and more contemporary authors from Kafka to Allegra Goodman. All readings in translation. Required for majors. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

15JUDC255 Jewish Autobiographies: The Mind of the Secular Jew
This course examines the phenomenon of secular Jewish identity through the prism of autobiography and memoir, paying close attention to the historical context in which autobiographic works were produced and analyzing how individual authors have shaped their lives’ events into a narrative pattern. The course will consider how culture, religions, politics, gender, and minority status shape experience, and explore the ways in which an author does or does not position him/herself as part of a larger community of Jews. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC261 Biblical Hebrew I
Biblical Hebrew's basic vocabulary and grammar, using biblical excerpts, textbook, and support resources that facilitate independent Bible reading. First quarter: alphabet, vocalization, syllables, definite article, prepositions, noun patterns and endings, pronouns, and vocabulary. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC262 Biblical Hebrew II
Biblical Hebrew's basic vocabulary and grammar, using biblical

H=University Honors course.

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Judaic Studies

15JUDC315
The Menorah: From Sinai to Cincinnati
Traces the history, art and religious significance of the Menorah, the seven-branched lampstand of the Biblical Temple, from its origins to recent controversies in Cincinnati BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

15JUDC317
Jewish God Concepts
A study of differing ways Jews have conceptualized the idea of God through history. Readings in English from the Bible, rabbinic literature, medieval Jewish philosophy (Saadia, Maimonides, Spinoza) mysticism (Luria), and 20th century philosophy and theology (Buber, Heschel, Kaplan and Soloveitchik). BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC321
Demons in the Bible and Related Texts
A discussion of demons and the demonic as they appear in the Bible and in texts from related regions and time periods. The course will promote critical thinking about demonic figures' treatment and roles in sacred texts. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15JUDC324
Intro Conversation Hebrew
Intro to Conversational Hebrew. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC325
Jerusalem
A history of the city from social, religious, political and ethnic perspectives over the last four thousand years. Fulfills A&S requirements for International Studies BA. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC326
Jewish Nationalism
The place of Israel in the Jewish tradition and the origins of Jewish nationalism. The rise of Zionism: the different strands of Zionist thought and movement's various ideological opponents. The emergence of the Jewish community in the Land of Israel and the beginning of the creation of the Jewish National Home. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC327
Modern Israel
Analysis of social, cultural, religious, economic and political developments in the State of Israel from its inception in 1948 to the present. Fulfills A&S International Studies BA requirement. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC328
Women in the Bible
An analysis of specific Biblical texts concerning women in the context of their Near Eastern environment, and of the influence of Biblical material on contemporary attitudes to women. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC329
The Evolution of the Angel
An introduction to angels as they are treated in the religious texts and traditions of Judaism, Christianity, Islam, and Zoroastrianism. The course will primarily deal with texts and ideas from the first millennium BCE through the medieval period, though there will also be discussions of modern religious and cultural perspectives on angels. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC330
Jews and Islam
Comparative study of Islam and Judaism. Survey of Jewish status and their social, cultural, and religious developments within Islamic societies from the 7th to the 17th centuries. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC331
Advanced Hebrew
Readings and conversation in contemporary Hebrew. Newspaper sources, short stories and poetry will be discussed and analyzed. Grammar points reviewed. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC332
Advanced Hebrew
Readings and conversation in contemporary Hebrew. Newspaper sources, short stories and poetry will be discussed and analyzed. Grammar points reviewed. The second offering in a three-part course sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC333
Advanced Hebrew
Readings and conversation in contemporary Hebrew. Newspaper sources, short stories and poetry will be discussed and analyzed. Grammar points reviewed. The second offering in a three-part course sequence. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC337
Israeli Literature in Translation
Survey of the prose and poetry of major Israeli writers, including Oz, Yehoshua, Amichai, Rachel, and others. Fulfills A&S literature requirement. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC341
The Sephardic Diaspora: 1492 - 2000
The experience of the Sephardic Jews from the expulsion from Spain to the present. Will cover the history, literature and culture of communities from the Ottoman Empire to the Americas. Prereq: 15JUDC481, 15JUDC129. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15JUDC343
Medieval Mediterranean Jews 4th-15th centuries
Introduces students to the development of Jewish settlement and society in North Mediterranean lands of Byzantium, Italy, and Spain. This course is a counterpart to the course Jews and Arabs. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15JUDC348
The New Testament in its Jewish Matrix
An introduction to the New Testament within the contexts of Jewish history, literature, and archaeology of the Greco-Roman period BoK: HP., LT. Credit Level: U. Credit Hrs: 3.00

15JUDC349
Introduction to Rabbinic Literature
A survey of the literature and literary forms produced by the rabbis of Late Antiquity (70CE - 400CE). All texts read in translation. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC352
Gender and Judaism
Analyzes the status of women in modern society and their particular experience within Judaism, in the framework of American and continental feminist writings as a lens through which their experience can be viewed. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15JUDC353
Women in Jewish Civilization
Examination of roles and images of women in Jewish literature, law and liturgy from Rabbinic times to the present. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC355
Yiddish Literature in Translation
Readings in classic Yiddish literature, revealing humor, drama and pathos of East European society. Fulfills A&S literature requirement. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC360
AMER JEWISH FICTION
AMER JEWISH FICTION This course analyzes the shifting grounds of Jewish American Literature and the quandary of the Jewish American writers, who manifestly draw from their Jewish ethic experience, and at the same time, find themselves deeply engrossed in the diverse experience of their mainstream American co-termini. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC362
American Jewish History 1654 to present
A survey of American Jewish history from the earliest settlements in the seventeenth century to the modern age. Particular attention will be paid to challenges and opportunities that the unique American environment presented to Jewish continuity. Topics include the role of immigration, religious reform, Antisemitism, and political involvement. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00

15JUDC365
Practicum in Judaic Studies
Internships in communal organizations; teaching assistants in Judaic Studies; language labs for Elementary and Intermediate Hebrew. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15JUDC366
Practicum in Judaic Studies
Internships in communal organizations; teaching assistants in Judaic Studies; language labs for Elementary and Intermediate Hebrew. The second offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15JUDC367
Practicum in Judaic Studies
Internships in communal organizations; teaching assistants in Judaic Studies; language labs for Elementary and Intermediate Hebrew. The third offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15JUDC368
Language Lab 201
Students work on their conversational skills: Emphasis is placed on verbal communication. Students will work in groups and on a one-to-one basis with the instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15JUDC369
Language Lab 202
Students continue to work on their conversational skills: Emphasis is placed on verbal communication. Students will work in groups and on a one-to-one basis with the instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15JUDC370
Language Lab 203
Students will continue to work on their conversational skills: Emphasis is placed on verbal communication. Students will work in groups and on a one-to-one basis with the instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15JUDC371
Jews in American Film
Exploration of the representation of Jews in American film and their role in developing the Hollywood film industry; how Jewish life was "translated" into pictures and how visual images relate to affective experience and shape our understanding of history. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC372
Israeli Cinema
Examines the major transitions and changes that have shaped modern Israeli society through the medium of film. Focuses on the transformation of Israel from a mobilized community into a modern, self-doubting and pluralistic society that openly questions its past. BoK: DC., HU. Credit Level: U. Credit Hrs: 3.00

15JUDC373
Film and Holocaust
Viewing and analysis of films portraying Jews during the Holocaust, from Nazi propaganda to postwar documentaries and artistic reconstruction. Formerly 15JUDC550. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC374
Jewish Humor/Women's Humor
Investigates how humor reveals the cultural identity of a people, a nation, or an ethnic group, and explores the particular ways in which men and women confront social, racial and psychological problems through humor. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC379
Judaism and Christianity in Conflict
Examination of Jewish Christian relations from the inception of Christianity to 6th Century C.E. The interplay between Judaism and Christianity will be considered against the background of the pagan Roman empire. 3 ug. cr. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC380
Dead Sea Scrolls
Surveys all Dead Sea Scrolls in translation and attempts to place them in the broader context of early Jewish and Christian thought. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC382
Studies in the Holocaust
Examination of Nazi destruction of European Jewry; analysis of Jewish Holocaust literature and theological issues precipitated by events. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15JUDC383
Literature of the Holocaust
This course explores the relationship between religion and the uniquely 20th-Century phenomenon of genocide. Among the issues to be discussed are: responses of the world religious community to genocide; Christian anti-Semitism and the Holocaust; totalitarianism and the Messianic ideal; genocide and modern theology. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC384
Religion and the Holocaust
Analysis of religious reactions of survivors to the Holocaust against backdrop of Jewish response to catastrophe throughout history. Examination of both Jewish and Christian theological writings on the Holocaust's implications for religion. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC385
Religion and Genocide
This course explores the relationship between religion and the uniquely 20th-Century phenomenon of genocide. Among the issues to be discussed are: responses of the world religious community to genocide; Christian anti-Semitism and the Holocaust; totalitarianism and the Messianic ideal; genocide and modern theology. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC386
Jewish Heretics
Examination of Jewish heresy and sectarian movements throughout history, emphasizing "orthodox" response to these movements. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC387
Freud & Judaism
Investigation of Freud's concepts of social change, culture, and civilization with its discontents, against the backdrop of classical Jewish thought and Freud's questionable Jewish identity. BoK: DC., SS. Credit Level: U. Credit Hrs: 3.00
Mystics & Messiahs

Survey of mystical movements among Jews from BCE to the present, drawing on the theoretical models relating to the background of 19th-20th century archaeological discoveries, and analysis of the extent to which such discoveries help us understand the Bible and Biblical times. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC394

Modern Jewish Thought

Examination of writings of major modern Jewish thinkers on the pressing intellectual, religious, and philosophical issues of the day. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC395

Medieval Jewish Philosophy

Analysis of thought of Philo, Saadya Gaon, Yehuda Halevi, and Maimonides. Fulfills A&S humanities requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15JUDC399H

Acculturation & Assimilation: The Jewish Encounter With Western Cultures

Examines the changing relationship of Jewish culture and the cultures of the societies among which Jews have lived from the 2nd century BCE to the present, drawing on the theoretical models relating to minority status, diasporas, and the assimilation of immigrant populations. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15JUDC401

Modern Hebrew Literature

Readings and literary analysis including prose and poetic works. Fulfills A&S literature requirement. BoK: LT., DC. Credit Level: U. Credit Hrs: 1.00-3.00

15JUDC402

Modern Hebrew Literature

Readings and literary analysis including prose and poetic works. Fulfills A&S literature requirement. The second offering in a three-part course sequence. Prereq: 15JUDC401. BoK: LT, DC. Credit Level: U. Credit Hrs: 1.00-3.00

15JUDC403

Modern Hebrew Literature

Readings and literary analysis including prose and poetic works. Fulfills A&S literature requirement. Third offering in a three-part course sequence. Prereq: 15JUDC402. BoK: LT, DC. Credit Level: U. Credit Hrs: 1.00-3.00

15JUDC405

The Bible and the Ancient World

Explores the relationship between the Hebrew Bible and the broader literary and cultural traditions of the ancient Near East (e.g. Egyptian, Babylonian, Sumerian). Through the study of ancient literature contemporaneous with the Bible -- for example, the Babylonian creation and flood stories -- students gain fresh insight into the message and purpose of the Hebrew Bible. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15JUDC475

Mystics and Messiahs

Mystics & Messiahs Survey of mystical movements among Jews from 300 BCE to the present. Also explores the development of Christian attitudes toward the art of the Jews. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00
Judaic Studies

15JUDC497
Capstone Seminar in Judaic Studies
Introduction to methods and approaches in Judaic Studies through in-depth study of a selected topic in Jewish history, thought or literature. Required of Junior and Senior majors in Judaic Studies. May be repeated. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JUDC498
Capstone Seminar in Judaic Studies
Emphasizes methods and approaches in Judaic studies through in-depth study of a selected topic in Jewish history, thought or literature. This is the second portion of a two-quarter sequence: JUDC497 introduces students to the selected topic and research skills appropriate to the competencies outlined in the General Education Program, while JUDC498 stresses scholarly method and requires completion of a major research paper or project. Required of junior and senior majors in Judaic studies. May be repeated. Prereq: 15JUDC497. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15JUDC505
History of the Jewish Book
Appreciation of Jewish books through study of content, bindings, marks of use and ownership, scripts, and more. Meets in Klau Library's Dalsheimer Rare Book Room at Hebrew Union College. Each session focuses on actual examples from the Hebrew Union College collections. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

15JUDC508
Freud and Judaism
Investigates Freud's concepts of social change, culture, and civilization with its discontinuities, against the backdrop of classical Jewish thought and Freud's questionable Jewish identity. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

15JUDC510
Antisemitism
Study of different manifestations of antisemitism throughout history in varied geographical settings, and of the historical, sociological, religious, and psychoanalytic analyses trying to explain it. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15JUDC511
Special Topics in Judaic Studies: History and Culture
This course is designed to provide graduate and advanced undergraduate students with the opportunity for interdisciplinary study on a variety of topics within the general field of Jewish history and culture. Topics and instructors will rotate regularly, and several different topics may be offered during one academic year. The course may be repeated. Perm of Instructor. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 1.00-6.00

15JUDC512
Special Topics in Judaic Studies: Literature, Art and Film
Special Topics in Judaic Studies: Literature, Art and Film. This course is designed to provide graduate and advanced undergraduate students with the opportunity for interdisciplinary study on a variety of topics within the general field of Jewish literature, art and film. Topics and instructors will rotate regularly, and several different topics may be offered during one academic year. The course may be repeated. Perm of Instructor. BoK: LT, DC. Credit Level: U, G. Credit Hrs: 1.00-6.00

15JUDC513
Special Topics in Judaic Studies: Thought and Philosophy
This course is designed to provide graduate and advanced undergraduate students with the opportunity for interdisciplinary study on a variety of topics within the general field of Jewish thought and philosophy. Topics and instructors will rotate regularly, and several different topics may be offered during one academic year. The course may be repeated. Perm of Department. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

Judaic Studies

15JUDC530
Jewish Music
Survey of Jewish music including major forms periods, and composers. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15JUDC537
Topics in Jewish Literature
Seminar on varied topics in modern Jewish literature. Topics will change from year to year. Fulfills A&S literature requirement. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15JUDC575
Jewish Women Writers
Analysis of prominent Jewish women writers including Anzia Yezierska, Shulamith Har’even, Amelia Kahana Carmon, Cynthia Ozick, Joanna Kaplan and their depiction of the socio-historical and psychological issues in their time. BoK: LT, DC. Credit Level: U, G. Credit Hrs: 3.00

15JUDC591
Individual Work in Judaica
Independent readings in field of Judaica. Topic and cr. to be arranged with instr. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15JUDC592
Individual Work Judaica
Independent work in Judaica. Students may take undergraduate level courses for graduate credit with permission of instructor and provided that they complete additional requirements. Refer to undergraduate listings for frequency of course offerings. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15JUDC593
Individual Work in Judaica
Independent readings in field of Judaica. Topic and cr. to be arranged with instr. Second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

Latin American Studies

15LAS401
Individual Work in Latin American Studies
Fulfills core requirements; only by approval of the Latin American Studies Committee. Credit to be arranged. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

15LAS402
Individual Work in Latin American Studies
Fulfills core requirements; only by approval of the Latin American Studies Committee. Credit to be arranged. Second offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15LAS403
Individual Work in Latin American Studies
Fulfills core requirements; only by approval of the Latin American Studies Committee. Credit to be arranged. Third offering in a three-way course sequence. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15LAS421
Senior Integrative Independent Work
Topics to be arranged. Required of all senior majors. Does not fulfill core requirement. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LAS422
Senior Integrative Independent Work
Topics to be arranged. Required of all senior majors. Does not fulfill core requirement. Second offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LAS423
Senior Integrative Independent Work
Topics to be arranged. Required of all senior majors. Does not fulfill core requirement. Third offering in a three-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Latin

15LATN101
Elementary Latin
An introduction to Latin grammar and the reading of simple prose. The first in a three-part course sequence. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15LATN102
Elementary Latin
An introduction to Latin grammar and the reading of simple prose. The second in a three-part course sequence. Prereq: 15LATN101. Prereq: 15LATN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15LATN103
Elementary Latin
An introduction to Latin grammar and the reading of simple prose. The third in a three-part course sequence. Prereq: 15LATN102. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15LATN104
Intensive Elementary Latin
Accelerated introduction to Latin grammar and reading. The first in a three-part course sequence. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15LATN105
Intensive Elementary Latin
Accelerated introduction to Latin grammar and reading. Second offering in a three-part course sequence. Prereq: 15LATN104. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15LATN106
Intensive Elementary Latin
Accelerated introduction to Latin grammar and reading. Third offering in a three-part course sequence. Prereq: 15LATN105. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15LATN114
Latin-Vergil
LATIN-VERGIL BoK: LT. Credit Level: U. Credit Hrs: 3.00

15LATN116
Latin-Lyric
LATIN - LYRIC BoK: LT. Credit Level: U. Credit Hrs: 3.00

15LATN211
Intermediate Latin
Intensive review of basic Latin combined with selected readings. The first in a three-part course sequence. Prereq 15LATN103 or equivalent. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN212
Intermediate Latin: Prose Selections
Intensive review of basic Latin combined with selected readings. The second in a three-part course sequence. Prereq: 15LATN211. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN213
Intermediate Latin: Roman Comedy: Plautus
Intensive review of basic Latin combined with selected readings. The third in a three-part course sequence. Prereq: 15LATN212. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN301
Latin Prose
Intensive review of fundamentals and selected readings from prose authors. Prereq: 15LATN106. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN302
Roman Rhetoric Cicero
Readings in the greatest Roman orator, Cicero. Intermediate level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Latin

15LATN303
Latin Lyric and Horace
Readings in the love poetry of Catullus and Horace’s Odes. Intermediate level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN305
Latin Elegy
Readings in the elegiac love poets, including Propertius, Tibullus, and Ovid. Intermediate level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN306
Virgil: Aeneid
Readings in Vergil’s Aeneid. Intermediate level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN401
Roman Epistemology
Readings in the collections of literary letters including Cicero and the Younger Pliny. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN402
Advanced Roman Rhetoric Cicero
Readings in the greatest Roman orator, Cicero. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN403
Latin Lyric and Horace
Readings in the love poetry of Catullus and Horace’s Odes. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN405
Latin Elegy
Readings in the elegiac love poets including Propertius, Tibullus, and Ovid. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN406
Advanced Virgil: Aeneid
Readings in Vergil’s Aeneid. Advanced level. All readings in the Latin original. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15LATN471
Special Topics in Latin
A special topic is chosen by student with approval of advisor as the subject of study in the capstone experience. BoK: LT. Credit Level: U. Credit Hrs: 1.00-15.00

15LATN501
Survey Latin Literature
Close study of the greatest Roman orator, Cicero. All readings in the Latin original. BoK: LT. Credit Level: U. G. Credit Hrs: 3.00-4.00

15LATN502
Survey Latin Literature
Close study of the Rerum Natura of Lcretius. All readings in the Latin original. BoK: LT. Credit Level: U. G. Credit Hrs: 3.00-4.00

15LATN503
Survey Latin Literature
Close study of the plays of Plautus and Terence. All readings in the Latin original. BoK: LT. Credit Level: U. G. Credit Hrs: 3.00-4.00

15LATN504
Tactitus
Close study of the historical writings of Tacitus. All readings in the original Latin. BoK: LT. Credit Level: U. G. Credit Hrs: 3.00-4.00

15LATN505
Horace
Close study of the poetry of Horace. All readings in the Latin original. BoK: LT. Credit Level: U. G. Credit Hrs: 3.00-4.00

H=University Honors course.
15LATN506  Latin Satire
Readings in some principal writers or satire, including Lucilius, Horace, Persius, and Juvenal. All readings in the Latin original. BoK: LT. Credit Level: U. G. Credit Hrs: 3.00-4.00

15LATN507  Historians: Livy and Sallust
Readings in the historical writings of Sallust and Livy. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN508  Virgil: Eclogues and Georgics
Close study of Vergil’s Eclogues and Georgics. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN509  Silver Latin
Readings in some principal writers of the Silver Age of Latin literature, including such authors as Lucan, Petronius, Statius, Quintilian, Pliny, Tacitus, and Martial. All readings in the Latin original. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN601  Special Readings in Latin
3 ug. cr.; 4 gr. cr. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15LATN602  Special Readings in Latin
3 ug. cr.; 4 gr. cr. BoK: LT. Credit Level: U, G. Credit Hrs: 3.00-12.00

15LATN603  Special Readings in Latin
3 ug. cr.; 4 gr. cr. Credit Level: G. Credit Hrs: 3.00-4.00

15LATN850  Seminar: Cicero
Seminar: Cicero Credit Level: G. Credit Hrs: 4.00

15LATN851  Seminar: Cicero II
Rhetorical and historical investigations stemming from readings in 15-006-850. Prereq: 15LATN850. Credit Level: G. Credit Hrs: 4.00

15LATN857  Latin Lapidary Poetry and Prose
Reading Latin inscriptions from the Republic to late antiquity on historical events, imperial government, the army, urban life in the Roman west, and other social, economic and cultural phenomena. Credit Level: G. Credit Hrs: 4.00

15LATN871  Master’s Thesis Research
Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15LATN896  Topics of Latin Literature
Topics of Latin Literature Credit Level: G. Credit Hrs: 4.00

15LATN921  Cult, Myth and Reality in Ovid’s Fasti
Ovid’s Fasti, a didactic poem in the form of a calendar, reflects the political, cultural and religious tendencies of the Augustan Age. In this seminar we examine, apart from philological issues (genre, Greek models), the historical and religious context of this exciting oeuvre. Credit Level: G. Credit Hrs: 4.00

15LATN922  Livy
Intensive study of the Roman historian Livy. Credit Level: G. Credit Hrs: 4.00

15LATN71  Doctoral Dissertation Research
Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15LATN72  Greek Tragedy in Rome
Explores the reception of Greek tragedy in Ancient Rome. The emphasis will be not only on the Roman plays inspired by Greek models (e.g. Seneca), but also on the references to Greek tragedy in Roman philosophy, oratory, and art (vase painting, sarcophagi). Credit Level: G. Credit Hrs: 4.00

15LATN73  Pliny the Younger and the Construction of Culture
This seminar will be a group exploration into the details of how the Younger Pliny constructs his ideal of the Roman cultural elite, with special attention to what Pliny tells us about the social uses of literature and to Roman ideas of the public and the private. Credit Level: G. Credit Hrs: 4.00

15LATN74  Statius
The goal of this seminar is to introduce students to the major issues in contemporary studies in Post-Augustan Latin Literature by reading extensive passages from Statius’ Silvae and the Thebaid. Credit Level: G. Credit Hrs: 4.00

15LATN75  Early Latin
A study of pre-classical Latin literature: Elder Cato to C. Gracchus; Livius Andronicus-Lucilius. Credit Level: G. Credit Hrs: 4.00

15LATN77  Latin Prose Composition
Graduate level class concentrating on developing the student’s Latin style and command of grammar and syntax. Credit Level: G. Credit Hrs: 4.00

15LATN79  Seminar in the Julio-Claudians
The political, economic and social history of the period between Augustus and the death of Nero. Particular attention is paid to the internal dynamics of the imperial family and the question of succession, provincial administration and the imperial bureaucracy. Credit Level: G. Credit Hrs: 4.00

15LATN80  Seminar: Virgil
SEMINAR:VIRGIL Credit Level: G. Credit Hrs: 4.00

15LATN81  Ovid’s Metamorphoses
Reading and advanced study of Ovid’s Metamorphoses. Credit Level: G. Credit Hrs: 4.00

15LATN83  Virgil: Aeneid
Credit Level: G. Credit Hrs: 4.00

15LATN84  Seminar Latin Literature
SEMINAR LATIN LIT Credit Level: G. Credit Hrs: 4.00

15LATN86  Roman Popular Culture
A study of the Late Republic and Early Empire culture of Roman lower socioeconomic classes. Credit Level: G. Credit Hrs: 4.00

15LATN87  Latin Palaeography
A survey of the field of palaeography and the principles of textual criticism. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
Labor and Employment Relations

15LER300
Introduction to Human Resources
An overview of the role of Human Resources in American organizations today. Equal Employment opportunity, organizational design, job development, planning and recruitment, selection and career development are examined. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER312
The Gendered Work Place
Examines the status, historical, and legislative context and concerns of women in contemporary American workplace. Women will be discussed as an inclusive, diverse group of multiple races, ethnicities, and socio-economic classes. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER401
Employee Compensation
Theory and practice of compensation in private and public employment. Examines job analysis and descriptions; setting pay levels; knowledge base pay; discrimination; pay for performance; gain-sharing and profit sharing. Prereq: 15MATH149, 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER402
International Human Resources
Examines globalization of the economy and human resources; functional areas of human resources in a multinational company; including compensation, staffing, and training; comparative country analysis of major trading partners; human resources in foreign-owned firms in the US; special topics. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER403
Training and Development
Advanced study of human resources, functions of employee training and development. Topics include training and development, training needs analysis, training program design, facilitation and implementation and cost analysis. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER404
Health and Safety
An examination of the major health and safety issues that challenge contemporary organization. Topics highlighted are OSHA, worker safety, workplace violence, alcoholism, aids, drugs and stress management. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER405
Staffing Organizations
Analysis, evaluation, design and implementation of procedures and practices for recruitment, selection, employment, and separation of employees in organizations. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER451
Employment Law
An analysis of employee related statues and case holdings on the business environment. The focus is on federal and state laws affecting employment decisions and how human resource managers must align organizational policies and practices accordingly. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER478
Special Topics in Human Resources
Provides opportunity for students to explore HR topics of interest on an individual basis or in structured courses developed as common interest arise. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER478
Special Topics in Human Resources
Provides opportunity for students to explore HR topics of interest on an individual basis or in structured courses developed as common interest arise. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER499
Independent Study and Human Resources
Independent Study. To be arranged. Prereq: 15LER300. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15LER517
Preparation for HRCI Professional Certification Exams
Study of human resource management to prepare practitioners for the Human Resources Certificate Institute national exams as Professional in Human Resources and Senior Professional in Human Resources. Not for MALER students. (Formerly ECON 517) BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15LER522
Labor Relations
Labor relations in a unionized setting; history, legal background, unions and employers, organizing, collective bargaining, conflict, impasse resolution, grievance procedures, public/private sector comparisons, and future prospects. (FORMERLY ECON 522) BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15LER523
Collective Bargaining

15LER524
Collective Bargaining II
Interest-based collective bargaining; environmental setting; the collaborative bargaining model; bargaining simulation. (FORMERLY ECON 524) BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15LER525
Ethical Issues in Employment Relations
Economic, legal and philosophical approaches to the solution of ethical issues in unionized and non-unionized work places. (FORMERLY ECON 525) BoK: SS, SE. Credit Level: U, G. Credit Hrs: 3.00

15LER557
Personnel and Employment Relations
Examination of the theory and practice of human resource management and employment relations in organizations. (FORMERLY ECON 557) BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15LER577
Collective Bargaining: Administration
Problems, administration of negotiated agreements, internal machinery for settling grievances. Problems, interpretation of agreement. Function, scope of arbitration. (FORMERLY ECON 577) BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

15LER610
Labor Unions in a Global Economy
Study of contemporary American unionism in a global environment; international comparisons; challenges of globalization. (FORMERLY ECON 610) BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15LER612
Employee Relations
Achieving positive employee-employee relations; procedures and systems for preventing and resolving workplace conflict in both non-union and unionized settings. (FORMERLY ECON 612) Prereq: 15ECON612. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00
Labor and Employment Relations

15LER614
Public Sector Labor Relations
Development of, and legal basis for, labor-management relations at various levels of government. Procedures, problems, and consequences of collective bargaining in public employment. (FORMERLY ECON 614) BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15LER620
Professional Devel in HR I
Attendance at meetings of Cincinnati area labor relations and human resources organizations and occasional conferences. Grade awarded after successful completion of three quarters of the colloquium and completion of the HRCI certification exam or the HRCI Assessment. The first offering of a three-part course sequence. (Formerly ECON 620) BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15LER621
Professional Devel in HR II
Attendance at meetings of Cincinnati area labor relations and human resources organizations and occasional conferences. Preparation for the Human Resource Certification exam. Grade awarded after successful completion of three quarters of the colloquium and completion of the HRCI certification exam or the HRCI Assessment. The second offering in a three-part course_sequence. Prereq: 15ECON620 Prereq: 15ECON620. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15LER622
Professional Devel in HR III
Preparation for the Human Resource Certification exam. Grade will be awarded after successful completion of three quarters of the colloquium and completion of the HRCI certification exam or the HRCI Assessment. The third offering in a three- part course sequence. Prereq: 15LER620, 15LER621 Prereq: 15ECON620, 15ECON621. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

15LER730
Statistics in Human Resources
This course is designed to introduce students to advanced inferential statistics and provide opportunities to analyze and interrupt data employing techniques commonly used by applied researchers and those practicing in the field of human resources. Prereq: 15STAT201, 22QA241. Credit Level: G. Credit Hrs: 3.00

15LER808
Organizational Literacy For Human Resources
Different organizational forms; the role of organizational functions other than human resources; key concerns of each functional area; important concepts in each function; and how human resources can help other functions achieve their missions. Credit Level: G. Credit Hrs: 3.00

15LER810
Human Resources And Organizational Development And Change
The strategic role of human resources in organizational development and change; types of change e.g. macro (mergers and acquisitions, downsizing, new technology, cultural) and micro (high-performance workgroups and teamwork); effect on organizations, workgroups, individual employees; resistance to change; and change strategies. Credit Level: G. Credit Hrs: 3.00

15LER812
Human Resources Consulting
Devolution in responsibility for operational aspects of human resources to line managers; increased use of third-party consultants; the consultative roles of human resource professionals; consulting stages, including entry, contracting, data analysis, and feedback; consulting skills required at each stage. Credit Level: G. Credit Hrs: 3.00

15LER814
Human Resource Management (HRM)
The course covers the following subjects and themes: strategic HRM, global issues, job analysis, job design, performance appraisal, human resource (HR) planning, recruitment, selection and placement, HR
Labor and Employment Relations

15LER853 Negotiations, the Rational Approach
and effectively. Negotiating rationally means arriving at better decisions and at better agreements which optimize the interests of the parties. Students participate in simulation exercises and debriefings. Credit Level: G. Credit Hrs: 3.00

15LER873 Human Resource Information Systems and Applications
Structure and uses of HRIS; systems and development process; needs analysis; system design, acquisition, implementation, evaluation and analysis; applications to HR functional areas using relevant software. (FORMERLY ECON 873) Credit Level: G. Credit Hrs: 3.00

15LER874 Staffing
Analysis, evaluation, design and implementation of procedures and practices for recruitment, selection, employment, and separation of employees in organizations. (FORMERLY ECON 874) Credit Level: G. Credit Hrs: 3.00

15LER876 Employee Development and Training
Role of employee development and training in organizations. Analysis, evaluation, design, and implementation of development and training activities and systems. (FORMERLY ECON 876) Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15LER878 Employee Benefits
Analysis and evaluation of employee benefits in organizational compensation systems. Design and implementation of benefits plans. (FORMERLY ECON 878) Credit Level: G. Credit Hrs: 3.00

15LER880 Health and Work
Rationales, legal constraints, design, implementation, and evaluation of workplace policies and programs concerning employee health and safety. (FORMERLY ECON 880) Credit Level: G. Credit Hrs: 3.00

15LER882 Negotiations
Objectives: to provide an understanding of the negotiation process through readings, negotiation exercises and debriefings; to review practical and analytical skills that can be applied to a variety of negotiation settings; to offer guidance for reaching satisfactory agreements. (FORMERLY EC 882) Credit Level: G. Credit Hrs: 3.00

15LER884 The Diverse Workforce
Workforce 2000; managing multicultural; the older worker; women in the labor force; work force skills and literacy; the disabled worker; temporary and part-time workers; workforce policy. (FORMERLY ECON 884) Credit Level: G. Credit Hrs: 3.00

15LER886 Human Resources Metrics
Link between HRM and organizational financial performance; measurement of HRM variables including turnover, contracts, and attitudes; policy evaluation; accounting and the HRM function. (FORMERLY ECON 886) Credit Level: G. Credit Hrs: 3.00

15LER888 Human Resource Planning
Forecasting employee demand and supply; techniques to meet needs, including internal labor markets, career planning and development; evaluation of utilization of human resource programs; public human resource programs. (FORMERLY ECON 888) Credit Level: G. Credit Hrs: 3.00

15LER890 Strategic Leadership for Human Resources
Models of strategic planning; description and evaluation of planning process, including definition of mission and vision, environmental scanning, planning techniques, and decision analysis; evaluation of outcomes. (FORMERLY EC 890) Credit Level: G. Credit Hrs: 3.00

15LER892 Strategic Human Resource Management
Strategic versus traditional approaches to HRM; external and organizational context; strategic approach to functional areas of HRM and in different types of organizations. (FORMERLY ECON 892) Credit Level: G. Credit Hrs: 3.00

15LER894 International Human Resource Management
Globalization of the economy and HRM; functional areas of HRM in a multinational company, including compensation, staffing, and training; comparative country analysis of major trading partners; HRM in foreign-owned firms in the US; special topics. (FORMERLY ECON 894) Credit Level: G. Credit Hrs: 3.00

15LER895 COMPARATIVE HUMAN RESOURCE MANAGEMENT
Human resources context, practices and issues in foreign countries compared with US. Includes legal, economic, political and cultural environment; predominant approaches to staffing, compensation, employee and labor relations; training and strategic HR; current trends and issues. ACADEMIC STUDY TOUR TO COUNTRY OR AREA STUDIED Credit Level: G. Credit Hrs: 9.00-6.00

15LER896 Seminar in Labor and Employment Relations
Research and field work relevant to understanding various aspects of labor relations and the management of human resources. A study of selected topics of the relationship of theory to practice. (FORMERLY ECON 896) Credit Level: G. Credit Hrs: 4.00

15LER897 Seminar in Labor and Employment Relations
Research and field work relevant to understanding various aspects of labor relations and the management of human resources. A study of selected topics of the relationship of theory to practice. Credit Level: G. Credit Hrs: 4.00

15LER898 Teaching in Labor and Employment Relations
Independent teaching or teaching assistance in labor and employment relations classes. To be arranged with LER faculty members. (FORMERLY ECON 898) Credit Level: G. Credit Hrs: 1.00-9.00

15LER899 Research in Labor and Employment Relations
Independent study or research assistance on labor and employment relations topics. To be arranged with LER faculty members. Credit Level: G. Credit Hrs: 1.00-9.00

15LER900 LER Capstone
This course is intended for Masters students in the Labor and Employment Relations program who are completing their final experience requirements. Permission of instructor is required. Credit Level: G. Credit Hrs: 2.00

Mathematics

15MATH146 Statistics for the Health Sciences
Statistical models and inference applied to problems in the health sciences, with emphasis on the role that statistics plays in medical research. Primarily for students in the College of Nursing and Health. Score of 420+ on the Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 4.00
Mathematics

15MATH147
Elementary Probability and Statistics
UNDERSTANDING DATA: Distributions and graphs, summarizing data, normal distribution, scatterplots, categorical data, designing samples and experiments, probability. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH148
Elementary Probability and Statistics
PROBABILITY & INFERENCE: Sampling distributions, probability, sample proportions and means, binomial distribution, confidence intervals, inference for means, comparing two means. Prereq.: 15-Math-147 with at least C-. Prereq: 15MATH147. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH149
Elementary Probability and Statistics

15MATH151
Mathematics for Early Childhood Teachers I
Problem-solving principles and strategies, number systems, operations estimation, fractions, decimals, and percents. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH152
Mathematics for Early Childhood Teachers II
Algebraic expressions, graphing points and lines, geometry of shape (congruence, similarity), and measurement. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH153
Mathematics for Early Childhood Teachers III
Topics from statistics and probability. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH154
Mathematics for Early Childhood Teachers IV
Geometric transformations in the plane, including rigid motions and dilations/contractions, reflection and rotational symmetries, tilings, tessellations, grid design and distortions. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH155
Topics in Mathematics
Management Science: Euler circuits, Hamiltonian circuits, traveling salesman problems, minimum-cost spanning trees, critical path analysis, scheduling tasks, bin packing, mixture problems, linear programming. Score of 420+ on Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH156
Topics in Mathematics
Collecting and describing data, probability, and statistical inference. Score of 420+ on Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH157
Topics in Mathematics
Voting systems, fair division, and apportionment. Score of 420+ on Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH173
College Algebra I
Equations, inequalities, Cartesian coordinate system, graphs of polynomial functions. Score of 431 - 500 on Math Placement Test. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH174
College Algebra II
Rational functions, conic sections, exponential and logarithmic function, systems of equations and inequalities. Prereq.: 15-Math-173 with at least C- or score of 500+ on MPT. Prereq: 15MATH173. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH181
Trigonometry
Rational functions, conic sections, trigonometry. Prereq.: 15-Math-174 with at least C- or score of 530+ on MPT. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MATH200
Cooperative Learning in Calculus 0
Students will participate in guided group work which complements the Calculus 0 curriculum. Coreq: 15MATH250. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH201
Cooperative Learning in Calculus I
Students participate in guided group work to complement the Calculus I curriculum. Coreq: 15MATH251. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH202
Cooperative Learning in Calculus II
Students participate in guided group work which complements the Calculus II curriculum. Coreq: 15MATH252. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH203
Cooperative Learning in Calculus III
Students will participate in guided, group work which complements the Calculus III curriculum. Coreq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH224
Foundations of Applied Calculus
A review of algebraic skills needed for calculus, including exponents, radicals, linear equations and inequalities, linear systems, and exponential and logarithm functions. Prereq.: Score of 470+ on Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH225
Finite Math
Systems of equations, linear programming, matrix algebra, and probability. Score of 530+ on Math Placement Test. Prereq.: 15-Math-174 with at least C- or score of 530+ on MPT. Prereq: 15MATH174. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH225H
Honors Finite Mathematics
Honors version of 15 Math 225. Prereq. 15-Math-174 with at least C- or score of 530+ on MPT. Prereq: 15MATH174. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH226
Applied Calculus I
Functions, graphs, limits, continuity, differentiation, curve sketching, optimization. Properties of exponential and logarithmic functions. Prereq.: 15-Math-174 or 15-Math-224 with at least C- or score of 570+ on MPT. Prereq: 15MATH224, 15MATH174. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH226H
Honors Applied Calculus I
Honors version of 15 Math 226. Prereq.: 15-Math-174 or 15-Math-224 with at least C- or score of 570+ on MPT. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH227
Applied Calculus II
Applications of exponential and logarithmic functions, anti-differentiation, the definite integral, area, functions of the variables,
Mathematics

15MATH227
Applied Calculus II

15MATH227H
Honors Applied Calculus II
Honors version of 15 Math 227. Prereq.: 15-Math-226 with at least C-. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH250
Calculus 0
For students who need more preparation before going on to 15 Math 251 Calculus I. Prereq.: score of 550+ on MPT. BoK: QR. Credit Level: U. Credit Hrs: 5.00

15MATH251
Calculus I
Functions, limits and continuity, derivatives, applications of the derivative, the integral. Prereq.: score of 670+ on the Math Placement Test or 15-Math-250 or 15-Math-181 with at least C-. Prereq: 15MATH250. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 5.00

15MATH251H
Honors Calculus I
Honors version of Math 251 (Calculus I). Prereq.: University Honors scholars with score of 860+ on MPT OR others with 1100+ on MPT and permission of department. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15MATH252
Calculus II

15MATH252H
Honors Calculus II

15MATH253
Calculus III

15MATH253H
Honors Calculus III

15MATH256
Calculus II Laboratory
Computer lab to accompany Calculus II (15 Math 252 ) Coreq: 15MATH252. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MATH256H
Honors Calculus II Laboratory
Honors version of 15 Math 256 (Calc II Lab) Coreq: 15MATH252H. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MATH257
Calculus III Laboratory

15MATH273
Differential Equations
First order differential equations (linear, separable, exact), second order linear equations, Wronskians, method of undetermined coefficients, variation of parameters, series solutions, regular singular points, higher order equations, Laplace transform. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 5.00

15MATH276
Matrix Methods
Course covers matrices, systems of linear equations, Gaussian elimination, determinants, theory of solutions, computation of inverses, eigenvalues and eigenvectors, coordinate transformations, systems of differential equations, applications to mechanical systems and electrical circuits. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH279
Linear Algebra I
Linear equations, matrices, vector spaces, bases and dimension.

H=University Honors course.
Mathematics

15MATH351
Linear Algebra I
Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH352
Linear Algebra II
Orthogonality, linear transformations, determinants, eigenvalues and eigenvectors, diagonalization. Prereq.: 15-Math-351 with at least C-. Prereq: 15MATH351. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH355
Introduction to Differential Equations
First and second order differential equations (with emphasis on the linear case), higher order linear equations, and systems of linear equations. Prereq.: 15-Math-264 and 15-Math-352 with at least C-. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH357
Introduction to Abstract Mathematics
Logic and proofs; set theory; relations; functions; cardinality. Prereq.: 15-Math-352 with at least C-. Prereq: 15MATH352. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH361
Probability and Statistics I

15MATH362
Probability and Statistics II
Point estimation, confidence intervals for means, proportions, variances, and differences of means and proportions. Hypothesis testing. Simple linear regression, multiple linear regression. Model building. SAS software package may be used. Prereq.: 15-Math-361 with at least C-. Prereq: 15MATH361. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH363
Probability and Statistics III
Analysis of variance and experimental design. Categorical data analysis, chi-square tests, reliability and quality control. SAS software package may be used. Prereq.: 15-Math-362 with at least C-. Prereq: 15MATH362. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH366
Engineering Statistics
Descriptive statistics, probability, binomial, Poisson, and normal distributions. Confidence intervals, and hypothesis testing, regression analysis. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH377
Applied Boundary Value Problems

15MATH401
Introduction to Abstract Algebra I
Division, prime numbers, modular arithmetic, Chinese Remainder Theorem, rings, homomorphisms. Prereq.: 15-Math-357 with at least C-. Prereq: 15MATH357. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH402
Introduction to Abstract Algebra II
Arithmetic in the rings of polynomials, irreducibility, congruence, in F[x]/i, the structure of the quotient ring, geometric constructions. Prereq.: 15-Math-401 with at least C-. Prereq: 15MATH401. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH404
History of Mathematics
A survey if the history of mathematics from ancient times through the invention of the calculus. Egyptian and Babylonian computational systems, Pythagoreanism, Euclid, the work of Archimedes, Hindu-Arabic numeration, algebra of the Renaissance, Galileo's mathematization of nature, geometry of Descartes and Fermat, calculus of Newton and Leibniz. Prereq.: 15-Math-406 with at least C-. Prereq: 15MATH406. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH406
Introduction to Geometries I
Introduction to Euclidean plane geometry. Attention is given to logical structure and the nature of axioms and their relationship to basic principles of plane geometry. Emphasis on triangle geometry, parallelism, and geometric constructions. Prereq.: 15-Math-357 with at least C-. Prereq: 15MATH357. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH407
Introduction to Geometries II
A course in transformational geometry based on symmetries of the plane. Isometries of the plane; conjugacy and geometric equivalence; isometries in 3-D; geometry and vector algebra. Prereq.: 15-Math-406 with at least C-. Prereq: 15MATH406. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH408
Introduction to Analysis I
Continuity and differentiability. Prereq.: 15-Math-357 with at least C-. Prereq: 15MATH357. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH409
Introduction to Analysis II
Riemann Integration and Infinite Series Prereq.: 15-Math-408 with at least C-. Prereq: 15MATH408. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH410
Discrete Mathematics and Applications
Logic, proofs, induction, relations, graphs, and trees. Prereq: 15MATH361. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15MATH498
Undergraduate Internship in Mathematics
Practical work-related experience in a supervised internship where job responsibilities involve statistical or mathematical reasoning or computation. For math majors (or math as second major.) Permission of Undergraduate Program Director required. Prereq: 15MATH352, 15MATH357. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15MATH501
Senior Capstone Experience in Mathematics
Students enroll in this course during the quarter in which they complete their senior capstone project/coursework. The capstone experience must be approved by the Undergraduate Program Director. BoK: QR. Credit Level: U. Credit Hrs: 1.00

15MATH504
Advanced Calculus
Order sets, the real field, the complex field, Euclidean space, finite, countable and uncountable sets, metric spaces, compact sets, convergent sequences, Cauchy sequences, upper and lower limits, Bolzano-Weierstrass theorem, series, the number e, convergence tests for series, absolute convergence, addition and multiplication of series, rearrangements. Prereq: 15MATH357. BoK: QR. Credit Level: U. G. Credit Hrs: 3.00

15MATH505
Advanced Calculus
Limits and continuity of functions, continuity and compactness, connectedness and continuity, dis-continuities, monotone functions, derivatives, the Mean Value theorem, l'Hopital's rule, higher order derivatives, Taylor's theorem, Reimann-Stiltes integral, integration and...
Mathematics

15MATH505
Advanced Calculus
derivatives of vector-valued functions, rectifiable curves. Prereq: 15MATH504. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH506
Advanced Calculus
Uniform convergence for series and series of functions, equicontinuous families of functions, the Stone-Weierstrass theorem, functions of several variables. Prereq: 15MATH505. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH511
Abstract Algebra
Abstract vector spaces; determinants; eigenvalues and eigenvectors; algebra of linear transformations; canonical forms, including triangular, Jordan, and rational forms. Prereq: 15MATH537. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH512
Abstract Algebra
Definition and basic properties of groups, subgroups, permutation groups, direct products, isomorphisms, homomorphisms, normal subgroups, and factor groups. Prereq: 15MATH537. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH513
Abstract Algebra
Selected topics in number theory. Binary relations and binary operations. Definitions and basic properties of rings and fields, integral domain, quotient fields, quotient rings and ideals, factorization of polynomials over fields, unique factorization domains, Euclidean domains, Gaussian integers, extension fields, algebraic extensions, geometric constructions, finite fields. Prereq: 15MATH512. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH514
Numerical Analysis
Floating point arithmetic, roundoff error, error propagation, solving nonlinear equations by bisection, secant, regula-falsi, and Newton methods, error analysis, polynomial interpolation, Runge phenomenon, cubic spline interpolation, orthogonal polynomials, and least squares approximation. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH515
Numerical Analysis

15MATH516
Numerical Analysis

15MATH517
Applied Mathematics Practicum
Techniques in applied mathematics, ordinary and partial differential equations, numerical methods, perturbation techniques, modeling. Under the guidance of the instructor, teams of students solve problems from industry, government, etc. and present reports on their findings. Prereq: 15MATH254, 15MATH273. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH521
Mathematical Statistics
Random variables, probability distribution functions, mathematical expectation, Chebyshev's inequality, marginal and conditional distributions, independence, binomial, Poisson, Gamma, and normal distribution. Prereq.: Math 264 and 361. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH522
Mathematical Statistics
Sampling distributions, transformation of variables, order statistics, moment generating functions, distribution of sample mean and sample variance, stochastic convergence, central limit theorem, maximum likelihood estimation, Bayesian estimation, confidence intervals. Prereq: 15MATH521. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH526
Nonlinear Optimization
Methods of unconstrained optimization, the steepest descent method, Newton's Method, conjugate direction methods, quasi-Newton and variable metric methods, theory and methods of constrained penalty methods. Prereq: 15MATH264. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH531
Applied Statistical Inference
Quick review of probability distributions. Inferences about population means and variance. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH532
Applied Regression Analysis
Correlation, multiple regression, one-way ANOVA, and multiple comparisons. Projects using SAS packages. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH533
Analysis of Variance
ANOVA for standard experimental designs and unbalanced designs, repeated measures, and analysis of covariance. Prereq: 15MATH532. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH534
SAS Programming
Various aspects of the SAS statistical package from a programming language perspective. Emphasis on SAS data steps, including the infile, input, merge, set, do-loop, if-then commands, writing macros, matrix computations using PROC IML and PROC INSIGHT. Concentration is on programming issues rather than statistical procedures. Prereq: 15MATH363, 15MATH532. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH541
Computational Financial Mathematics I
Symbolic and numerical solutions of ODEs, Brownian motion, stochastic calculus, Black-Scholes formula, computer lab using Mathematica. Prereq: 15MATH361, 15MATH254. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH542
Computational Financial Mathematics II
Computer lab using Mathematica. Stock market statistics, Bayesian and non-Bayesian estimates, implied volatility, numerical PDEs, optimal control of PDEs. Prereq: 15MATH541. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
Mathematics

15MATH543 Computational Financial Mathematics III

15MATH551 Number Theory
Number-theoretic functions, congruences, diophantine equations, primitive roots and indices, quadratic residues, quadratic reciprocity. Prereq: 15MATH402. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH553 Partial Differential Equations and Fourier Analysis
Heat equation, separation of variables, Laplace equation, Fourier series, vibrating strings, and membranes. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH554 Partial Differential Equations and Fourier Analysis
Sturm-Liouville problems. PDE with at least three independent variables. Green's functions, non-homogenous problem, Fourier transform, and characterization. Prereq: 15MATH553, 15MATH254. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH555 Applied Linear Algebra
Gaussian elimination, triangular factorization, band matrices, linear independence, computation of column space and nullspace of a matrix, orthogonality and geometry of Rn projections onto subspaces, least squares approximation, and the pseudo-inverse. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH556 Applied Linear Algebra
Stability of linear differential and difference equations, the Spectral Theorem for symmetric matrices, positive definite matrices, the generalized eigenvalue problem, the Rayleigh quotient, and minimax principles. Prereq: 15MATH555. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH558 Applied Complex Analysis
Introduction to the geometric aspects of elementary complex analysis. Topics covered include: complex numbers; mapping properties of elementary functions; conformal mapping and Mobius transformations; and applications to fluid flow. Prereq: 15MATH264, 15MATH273. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15MATH559 Applied Bayesian Analysis
Basic principles behind Bayesian inference and the concepts of prior and posterior distributions. Bayesian approach to statistical inference (estimation and test of hypotheses.) Differences and similarities between Bayesian and classical (frequentist) approaches featuring selected topics and examples requiring approximate or computer based numerical calculations of Bayesian answers. Prereq: 15MATH522. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH574 Nonparametric Statistics
One- and two-sample location problems, Wilcoxon statistics, rank tests, one- and two-way layout, tests for independence, linear rank statistics, Kolmogorov test. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15MATH575 Robust Statistics
Methods of data analysis that are used when a sample is not assumed to have come from a normal distribution. Classical methods of inference and estimation; theoretical, applied, and computational aspects of robustness; Monte Carlo adaptive estimation, jackknifing, and boot strapping. Prereq: 15MATH362. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

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Mathematics

15MATH605
General Topology
regular values; smooth approximation theorem; surfaces; homology; the
singular model; and the Eilenberg- Steenrod axioms. Prereq:
15MATH604. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH606
General Topology
Cellular and simplical homology; Betti numbers, Euler characteristic;
Mayer-Vietoris sequence; homology cross-product; Lefschetz fixed-
point theorem; Ext, Tor, universal coefficient theorems; Kunneth
theorems; cohomology; products (cross, cup, cap); Poincare duality;
and topics chosen by the instructor. Prereq: 15MATH605. BoK: NA.
Credit Level: U, G. Credit Hrs: 4.00

15MATH607
Real Analysis
Elementary set theory. Axiom of Choice, elementary topology.
Lebesgue Measure and integration on the real line. Abstract measure
and integration theory, product measures and Fubini's theorem,
absolute continuity and the Radon-Nikodym theorem, signed measures
and decomposition theorems, integration on locally compact spaces,
the Riesz Representation Theorem. Topological vectors. Prereq:
15MATH506. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH608
Real Analysis
(see 15 Math 607) plus normed spaces and Hilbert spaces, elementary
theory of continuous linear operators. Prereq: 15MATH607. BoK: NA.
Credit Level: U, G. Credit Hrs: 4.00

15MATH609
Real Analysis
Lebesque measure, Lebesque integration, differentiation, absolute
continuity, LP spaces, abstract measure spaces, integration, product
measures. The third offering in a three-part course sequence. Prereq.:
Hrs: 4.00

15MATH610
Algebraic Structures
Group Theory: Sylow's theorems; Fundamental Theorem of abelian
groups; Jordan-Holder theorems, solvable groups. Modules: Free
modules and Zorus' Lemma. Modules over PID. Categories: Products;
co-products; and free objects. Prereq: 15MATH511. BoK: NA. Credit
Level: U, G. Credit Hrs: 4.00

15MATH613
Linear Models and Multivariate Analysis
Review of matrix algebra, multivariate normal distribution; linear models
including multiple regression, analysis of variance, analysis of
coefficient and repeated measurements. Selected topics from
experimental design and multivariate analysis. Prereq: 15MATH351,
15MATH362. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH614
Linear Models and Multivariate Analysis
Multivariate normal distribution. General linear models. Analysis of
experiments. The second offering in a three-part course sequence.
Prereq.: Math. 352 or equiv.; 362 or 523 or 708. Prereq: 15MATH613.
BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15MATH615
Linear Models and Multivariate Analysis
Multivariate normal distribution. General linear models. Analysis of
experiments. The third part in a three-part course sequence. Prereq.: Math 352 or equiv.; 362 or 523 or 708. Prereq: 15MATH614. BoK: NA.
Credit Level: U, G. Credit Hrs: 4.00

15MATH616
Ordinary Differential Equations
Linear systems. Fundamental theory of existence, uniqueness and
continuity of solutions in initial conditions. Stability of equilibria.

H=University Honors course.
McMicken College of Arts and Sciences 129
Mathematics

15MATH701  
Analytical Methods  
Credit Hrs: 3.00

15MATH702  
Analytical Methods  
Calculus in higher dimensions: gradient, curl, divergence, Jacobian, curvilinear coordinates, etc.; separation of variables for solving partial differential equations; calculus of variations. Prereq: 15MATH701.  
Credit Level: G. Credit Hrs: 3.00

15MATH720  
STATISTICAL CONSULTING  
Working on projects in teams of two, students will interact with researchers to learn statistical techniques and develop consulting and presentation skills. Perm of Instructor.  
Credit Level: G. Credit Hrs: 3.00

15MATH750  
Technology for Calculus  
Introduction to the use of technology for teaching analysis (pre-calculus and calculus). Graphing calculators, symbolic algebra programs. Design and delivery of lessons that use technology. Project-oriented with cooperative learning component. For students in the M.A.T. program or by permission of the instructor.  
Credit Level: G. Credit Hrs: 4.00

15MATH753  
Linear Algebra for Geometry  
Studies vectors and linear transformations; algebra of matrices. Focus is on dimensions 2 and 3, isometries and symmetry groups. For students in the MAT program or by permission of instructor.  
Credit Level: G. Credit Hrs: 4.00

15MATH754  
Technology for Geometry  
Technology for teaching geometry, including: dynamic geometry programs; computer graphics; and technical word processing. Design of lessons that use technology. Project-oriented with cooperative learning component. For students in the MAT program or by permission of instructor.  
Credit Level: G. Credit Hrs: 2.00

15MATH755  
Geometry I  
Axiomatic treatment of neutral and Euclidean geometry. For students in the MAT program or by permission of instructor.  
Credit Level: G. Credit Hrs: 4.00

15MATH756  
Geometry II  
Transformational geometry (isometries, similarities, and other affine transformations.) For students in the MAT program or by permission of instructor.  
Prereq: 15MATH755.  
Credit Level: G. Credit Hrs: 4.00

15MATH761  
Algebra and Number Theory I  
Congruence, divisibility, primes, number-theoretic functions, number bases, and applications. For students in the M.A.T. program or by permission of the instructor.  
Credit Level: G. Credit Hrs: 4.00

15MATH762  
Algebra and Number Theory II  
The theory of rings and fields, with emphasis on the algebra of polynomials. For students in the M.A.T. program or by permission of the instructor.  
Credit Level: G. Credit Hrs: 4.00

15MATH763  
Probability and Statistical Inference  
Credit Level: G. Credit Hrs: 4.00

15MATH764  
Technology for Statistics  
Spreadsheets and statistical packages for handling and exploring data, doing simulations, and demonstrating concepts of statistics. Project-oriented with cooperative learning component. For students in the M.A.T. program or by permission of the instructor.  
Credit Level: G. Credit Hrs: 2.00

15MATH798  
M A T Project I  
Preparation of and presentation of the Master of Arts in Teaching project.  
Credit Level: G. Credit Hrs: 2.00

15MATH799  
M A T Project II  
Preparation for and presentation of the Master of Arts in Teaching project.  
Credit Level: G. Credit Hrs: 2.00

15MATH801  
Matrices  
Matrices and linear transformations in two and three dimensions.  
Credit Level: G. Credit Hrs: 3.00

15MATH802  
Mathematical Models  
Development and analysis of mathematical models of discrete and continuous phenomena. For students in the M.A.T. program or by permission of the instructor.  
Credit Level: G. Credit Hrs: 4.00

15MATH804  
Graduate Colloquium  
GRADUATE COLLOQUIUM  
Credit Level: G. Credit Hrs: 3.00

15MATH805  
Graduate Colloquium  
GRADUATE COLLOQUIUM  
Credit Level: G. Credit Hrs: 3.00

15MATH806  
Graduate Colloquium  
GRADUATE COLLOQUIUM  
Credit Level: G. Credit Hrs: 3.00

15MATH808  
Historical Topics in Mathematics  
Historical perspectives on subjects in secondary school mathematics.  
Credit Level: G. Credit Hrs: 3.00

15MATH810  
Proseminar in the Teaching of College Mathematics  
Techniques and practice in the teaching of undergraduate level mathematics courses.  
Credit Level: G. Credit Hrs: 3.00

15MATH831  
Practicum in Applied Statistics  
This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or cooperative employment in order to get credit for this class.  
Prereq: 15MATH533.  
Credit Level: G. Credit Hrs: 1.00-3.00

15MATH832  
Practicum in Applied Statistics  
This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or cooperative employment in order to get credit for this class.  
Prereq: 15MATH533.  
Credit Level: G. Credit Hrs: 1.00-3.00

15MATH833  
Practicum in Applied Statistics  
This course enables students to enhance their graduate degree program with some practical experience working on real data analytic problems in applied statistics. Students must obtain an internship or cooperative employment in order to get credit for this class.  
Prereq: 15MATH533.  
Credit Level: G. Credit Hrs: 1.00-3.00

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H=University Honors course.  
BoK (Breadth of Knowledge) Coding.  
DC: Diversity & Culture.  
EC: English composition.  
FA: Fine Arts.  
HP: Historical Perspectives.  
HU: Humanities.  
LT: Literature.  
NS: Natural Sciences.  
QR: Quantitative Reasoning.  
SE: Social & Ethical Issues.  
SS: Social Sciences.
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<tr>
<td>15MATH937</td>
<td>Seminar in Cryptography</td>
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H=University Honors course.
Mathematics

15MATH938
Seminar in Cryptography
PhD level seminar in the mathematical theory of cryptography. Credit Level: G. Credit Hrs: 4.00

15MATH939
Seminar in Cryptography
PhD level seminar in the mathematical theory of cryptography. Credit Level: G. Credit Hrs: 4.00

15MATH941
Seminar in Financial Mathematics
PhD level seminar in financial mathematics. Credit Level: G. Credit Hrs: 3.00

15MATH942
Seminar in Financial Mathematics
PhD level seminar in financial mathematics. Credit Level: G. Credit Hrs: 3.00

15MATH943
Seminar in Financial Mathematics
PhD level seminar in financial mathematics. Credit Level: G. Credit Hrs: 3.00

15MATH951
Seminar in Mathematical Biology
PhD level seminar in Mathematical Biology. Credit Level: G. Credit Hrs: 4.00

15MATH952
Seminar in Mathematical Biology
PhD level seminar in Mathematical Biology. Credit Level: G. Credit Hrs: 4.00

15MATH953
Seminar in Mathematical Biology
PhD level seminar in Mathematical Biology. Credit Level: G. Credit Hrs: 4.00

15MATH971
Master's Thesis Research
Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15MATH972
Doctoral Dissertation Research
Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15MATH973
Research
Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

Middle Eastern Studies

15MES245
Introduction to the Middle East
This class is an introduction to issues and methods in Middle Eastern Studies. Assignments include a variety of primary and secondary sources in ME Studies to gain a broad sense of analytical approaches & exposure to empirical material not encountered in a single-discipline course. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Management

15MGMT101
Business: Ethics and Decisions
(Formerly 30BA101). The socio-political, economic, and the ethical issues of the next decade. Media course. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15MGMT171
Introduction to Business
(Formerly 30BA171). Preparation for business curriculum. Students assess abilities, personal goals. Review of major business fields; marketing, human resources finance, production. BoK: NA. Credit Hrs: 3.00

H=University Honors course.
Management

15MGMT572  
Dynamics of Interpersonal Behavior  
Analysis, group simulations, interpersonal processes and dynamics (role performances and development); organizational aspects of group behavior; leadership and change. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MGMT573  
Management in an Emergent Society  
Issues in the business firm's relationship with an emerging and changing society; conflicts of interest; prejudice and discrimination; management ethics. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Marketing

15MKTG171  
Salesmanship  
Buying habits and motives; sales presentations; analyzing territories; graphic sales presentations; locating and qualifying prospects. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG245  
Principles of Advertising  
History, theory, and roles of advertising; social, economic, and legal aspects. Practice of management, research, strategy, and planning of advertising; emphasis on retail, international advertising. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG246  
Principles of Advertising  
Design, execution of copy structure, layout, Mechanical, print, and broadcast production; sales promotion; trademarks; packaging; media selection scheduling, direct marketing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG251  
Principles of Marketing  
(Formerly 30MKTG351). Environment, ethics, social responsibility; buying behavior, target markets, services, branding and packaging; product and pricing concepts. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG252  
Principles of Marketing  
(Formerly 30MKTG352). Continuation of 30MKTG251. International, market research; channels, wholesaling, retailing, distribution; promotion, advertising and selling; market planning and control. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG470  
Consumer Behavior  
Behavioral aspects of the consumer decision-making process. Consumer behavior theory, marketing strategy and social implications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG471  
Principles of Retailing  
Retailing introduction emphasizing pricing, buying, layout, inventory; different retail stores growth and development. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG473  
Sales Management  
Job analysis and specification; recruiting, selecting, training, compensating, supervising salespeople; problems, methods, organization and administration of sales departments; territories, quotas. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG475  
Retail Management  
(Formerly Retail Decision Making). Organization; managerial framework; location, operations, systems, sales, promotion, customer services, merchandising policies and controls. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Marketing

15MKTG571  
Marketing in a Global Context  
(Formerly International Marketing). Foreign trade; internationalism and multinational corporations; theories, practice, cultural, social, political and economic environment of foreign markets. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG573  
Marketing Research I  
Fundamentals of market research; planning the investigation; sources of data; cost determining; editing and testing the sample. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG574  
Marketing Research II  
Gathering data; tabulation; conclusions; interpretation and presentations of results; planning and completing projects. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MKTG585  
Cases in Marketing Strategy  
(Formerly Marketing Strategy). Problems of mass production, marketing methods, price fixing, legislation, economic and social forces. Analysis and decision making by marketing executives. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Multidisciplinary

15MLTI100  
Learning Community Cohort  
Description not available. BoK: NA. Credit Level: U. Credit Hrs: 1.00-19.00

15MLTI111  
Learning Community Link  
This course serves to indicate a student's involvement in a Learning Community cohort in a particular quarter. It can be taken multiple times to indicate the different quarters during which a student is part of a Learning Community. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI112  
Learning Community Integration  
Indicates a student's involvement in a learning community in a particular quarter. Credit granted for experiences undertaken in integrating learning among the separate courses involved. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

15MLTI121  
Service Learning Link  
This course serves to indicate a student's involvement in a regular academic course that contained a service-learning component. It can be taken multiple times to indicate the different quarters during which a student is involved in service learning activities. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI123  
College Success Skills  
A survey of skills and resources designed to enhance academic success. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MLTI125  
Discovering Arts and Sciences  
Exploration of the relationship between fields of study in the liberal arts, their applications in a societal context, and work and career opportunities. Resources include faculty, alumni, representatives of the public and private sectors, and current literature on careers. Primarily designed for undeclared majors as part of the First Year Experience. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MLTI175  
Discovering UC  
Introduction to UC's majors and programs of study along with the complete process for selecting a major. Students participate in interactive faculty presentations from all baccalaureate colleges.
McMicken College of Arts and Sciences   134

Multidisciplinary

15MLTI175
Discovering UC
personal assessment, academic exploration exercises, and one-on-one meetings with instructors. Helpful for undecided, questioning, or transitioning students in the major selection process. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MLTI1200
Research Tools I
Instruction in resources of the University Libraries for students in the Learning Communities of the College of Arts & Sciences. Pass credit only. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI1201
McNair Experience I
The purpose of this course is to provide McNair Scholars with an action plan for applying to and paying for graduate school, preparation for the Graduate Record Exam and exposure to diverse research areas. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI1202
McNair Experience II
The purpose of this course is to provide McNair Scholars with an action plan for applying to and paying for graduate school, preparation for the Graduate Record Exam and exposure to diverse research areas. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI1203
McNair Experience III
The purpose of this course is to provide McNair Scholars with an action plan for applying to and paying for graduate school, preparation for the Graduate Record Exam and exposure to diverse research areas. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI1222
Learning Community Link
This course serves to indicate a student's involvement in a Learning Community cohort in a particular quarter. It can be taken multiple times to indicate the different quarters during which a student is a part of a Learning Community. The 200 level will be used with sophomore level students. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI1280
McMicken Service Learning Seminar
The connection of in-class learning principles to out of class learning experience through community interaction and service. Students enrolled in this class, which will be taken in conjunction with upper-division courses in various disciplines, have up to one academic year to fulfill the service requirement and will be granted credit upon completion of that requirement. BoK: SE. Credit Level: U. Credit Hrs: 1.00-3.00

15MLTI1300
Study Abroad
Students pursuing study abroad with the assistance of UC International Programs will enroll for this course to maintain their status as university students. Actual credit will be awarded upon return to the campus. BoK: NA. Credit Level: U. Credit Hrs: 1.00-50.00

15MLTI1301
GOP INTERNSHIP
GOP INTERNSHIP BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MLTI1311
McNair Experience III
Part three of the orientation to the McNair Experience BoK: NA. Credit Level: U. Credit Hrs: 1.00

15MLTI1312
McNair Experience IV
Part three of the orientation to the McNair Experience BoK: NA. Credit Level: U. Credit Hrs: 1.00

Multidisciplinary

15MLTI333
Learning Community Link
This course serves to indicate a student's involvement in a Learning Community cohort in a particular quarter. It can be taken multiple times to indicate the different quarters during which a student is part of a Learning Community. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI350
Mock Trial Internship
Internship experience for Pre-Law students. Teams will be formed to be trained by attorneys in trial procedure and will argue cases in competition before state and federal judges. Prereq: 15MLTI350. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15MLTI351
Mock Trial Internship
Internship experience for Pre-Law students. Teams will be formed to be trained by attorneys in trial procedure and will argue cases in competition before state and federal judges. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15MLTI444
Learning Community Link
This course serves to indicate a student's involvement in a Learning Community cohort in a particular quarter. It can be taken multiple times to indicate the different quarters during which a student is a part of a Learning Community. BoK: NA. Credit Level: U. Credit Hrs: 0.00

15MLTI498
Pre-Law Internship
Internship experience for Pre-law students. Students will have the opportunity to work and learn in law-related settings such as law firms and prosecutors' offices. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15MLTI500
International Exchange Program
For UC students who are participating in UC programs abroad under the exchange program of UC International Programs. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-28.00

15MLTI501
Guided Study -- Interdisciplinary
Individual work offered each quarter with variable cr. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15MLTI502
Guided Study -- Interdisciplinary
Individual work offered each quarter with variable cr. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15MLTI503
Guided Study -- Interdisciplinary
Individual work offered each quarter with variable cr. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

15MLTI681
Consortium
CONSORTIUM BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-24.00

15MLTI682
The Ralph Regula School
This is a placeholder course for students registering for classes through the Ralph Regula School of Computational Science. Credit will be awarded as advanced standing. UC’s Ralph Regula advisor permission required. BoK: NA. Credit Level: U. Credit Hrs: 1.00-18.00

15MLTI6841
Future Faculty Scholars Seminar
Colloquium restricted to Preparing Future Faculty students. Provides an opportunity for enrollees to become more effective instructors, exposing them to a variety of topics - and insights - on what constitutes effective

H=University Honors course.
Multidisciplinary

15MLTI841 Future Faculty Scholars Seminar
Teaching. A variety of faculty help to accomplish this purpose by exposing students to - and by modeling - effective teaching strategies. Participants are asked to contribute as well, since many will already have had good teaching experience. Credit Level: G. Credit Hrs: 2.00

15MLTI842 Future Faculty Scholars Seminar
Continuation of 15MLTI841 Credit Level: G. Credit Hrs: 2.00

15MLTI971 Interdisciplinary Research
INTERDISCIPLINRY RES Credit Level: G. Credit Hrs: 1.00-15.00

Military Science

15MS111 Basic Rappelling
Introduction to basic rappelling and mountaineering skills. Small group leadership principles, designed to give students a functional base of practical management and leadership skills taught through a physically and mentally challenging course. The course develops a sense of confidence in students' abilities to overcome challenging obstacles. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15MS112 Marksmanship and Leadership
Introduction to safe use of a rifle and marksmanship training. Basic fundamentals of small group leadership is stressed. Practical experience at leadership and decision making is provided to students. Each student faces personal challenges and learns to overcome them through initiative, sound judgment and accurate problem analysis. By doing this, students begin to develop a functional base of practical management and leadership skills which can be applied to future, challenging situations. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15MS113 Military Field Crafts
Introduction to basic outdoor survival skills, to include map reading, orienteering, land navigation and CPR certification. Students are face with personal challenges that must be overcome through development of personal leadership and decision making skills. Students continue to build upon their functional base of practical management and leadership skills. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15MS211 Leadership Foundations I
The focus is on developing knowledge of the leadership values and attributes through understanding Army rank, structure and duties as well as broadening knowledge of land navigation and squad tactics. Case studies will provide a tangible context for learning the Soldier's Creed and Warrior Ethos as they apply in the contemporary operating environment. BoK: HP., SE. Credit Level: U. Credit Hrs: 2.00

15MS212 Leadership Foundations II
The second course in a series that explores the dimensions of creative and innovative tactical leadership strategies and styles of examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework. Aspects of personal motivation and team building are practiced during planning, executing and assessing team exercises and participating in leadership labs. BoK: HP., SE. Credit Level: U. Credit Hrs: 2.00

15MS213 Leadership Foundations III
This is the third course in the series that examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). This course highlights dimensions of terrain analysis, patrolling and operation orders. Continued study of the theoretical basis of the Army leadership framework explores the dynamics of adaptive leadership in the context of military operations.

Military Science

15MS213 Leadership Foundations III
MS 213 provides a smooth transition to MS 311. BoK: HP., SE. Credit Level: U. Credit Hrs: 2.00

15MS311 Individual Leadership and Military Skills I
Intermediate tasks of military land navigation and small unit tactics, military maps and use of the magnetic compass, land navigation and terrain analysis. Small unit tactics with emphasis on offensive, defensive and patrolling missions. The training and assessment of the 16 leadership dimensions. Other military skills training. Perm. of instructor required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MS312 Individual Leadership and Military Skills II
Organizational and tactical employment of the squad and platoon, principles of tactical organization for military operations, preparation of operations order. The training and assessment of the 16 leadership dimensions. Other military skills training. Perm. of instr. required. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MS313 Individual Leadership and Military Skills III
A study of platoon tactics and operations, garrison operations and marksmanship. Advanced camp orientation and leadership training and assessment. Other military skills training. Perm. of instr. required. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15MS411 Developmental Leadership I
Study the application of the military staff concept to include staff functions and staff procedures for problem solving and decision making. Topics include information/decision papers and briefings, military correspondence, organization training assessment, planning and execution, after-action reports and leadership theory. Pre-requisite courses: 15MS311, 15MS312 and 15MS313. Prereq: 15MS311, 15MS312, 15MS313. BoK: SE. Credit Level: U. Credit Hrs: 3.00-8.00

15MS412 Developmental Leadership II
Study the application of military law and international law, as it pertains to the military, the laws of land warfare and the code of conduct. Focus is on the challenges the military profession faces in the new strategic environment. Pre-requisite courses 15MS311, 15MS312 and 15MS313. Prereq: 15MS311, 15MS312, 15MS313, 15MS314. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15MS413 Developmental Leadership III
Study the application of military ethics and professionalism as it pertains to the military leader in problem solving and decision making. Decision Briefs, Culture of Terrorism, Contemporary Operating Environment (COE), Force Protection, Army Modularity and Battlefield Staff ride. Pre-requisite courses: 15MS311, 15MS312 and 15MS313. Prereq: 15MS311, 15MS312, 15MS313. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15MS491 Individual Work in Military Science
Independent work in the field of Military Science by contract with faculty member. Must have the permission of the professor to register for the class. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

Neuroscience

15NS110 Neuroscience: Freshman Seminar
Introduces freshman neuroscience majors to the scope of neuroscience research being pursued at UC and to career options for neuroscientists. BoK: NA. Credit Level: U. Credit Hrs: 1.00
Neuroscience

15NS111  Neuroscience: Seminar
Exposes freshman neuroscience majors to state-of-the-art neuroscience talks hosted by various departments across the UC campus, develops scientific writing and presentation skills, and discusses issues that arise in undergraduate research projects. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15NS201  Introduction to Neuroscience: Neurobiology
Provides a fundamental background in cell and circuit level neurobiology. It is intended for Neuroscience majors. Prereq: 15BIOL101, 15BIOL102, 15BIOL103. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15NS202  Introduction to Neuroscience: Neuropsychology
Provides an overview of the study of brain-behavior relationship, focusing mainly on systems, cognitive and clinical aspects to neuroscience. It is intended for Neuroscience majors. BoK: NS., SS. Credit Level: U. Credit Hrs: 3.00

15NS203  Introduction to Neuroscience: Concepts and Methods
Introduces students to conceptual and methodological issues in contemporary neuroscience, including broader social and ethical concerns, in light of basic principles of scientific reasoning and understanding. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15NS211  Neuroscience: Seminar
Exposes sophomore neuroscience majors to state-of-the-art neuroscience talks hosted by various departments across the UC campus, develops scientific writing and presentation skills and discuss issues that arise in undergraduate research projects. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15NS311  Neuroscience: Seminar
Exposes junior level neuroscience majors to state-of-the-art neuroscience talks hosted by various departments across the UC campus, develops scientific writing and presentation skills, and discusses issues that arise in undergraduate research projects. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15NS411  Neuroscience: Seminar
Exposes senior status neuroscience majors to state-of-the-art neuroscience talks hosted by various departments across the UC campus, develops scientific writing and presentation skills, and discusses issues that arise in undergraduate research projects. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Organizational Leadership

15ORGL261  Financial Accounting for Organizational Leaders
An interdisciplinary analysis of the reporting and interpretation of contemporary financial data. Prereq: 15ENGL103. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15ORGL295  Diversity In the Workplace
Diversity is a recurring topic in magazines, corporate speeches, and managerial seminars across the country. Cultural diversity has become one of the most significant changes in the American workplace. The recognition of a diverse workforce, one profoundly different from the traditional organizational employee population, creates new situations and unique challenges for everyone. This course will include lectures, videos, required readings and visiting lecturers. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15ORGL300  Organizational Behavior for Effective Leaders
This course explores the attitudes and behaviors of individuals and groups in organizations. The discipline of organizational behavior systematically studies these attitudes and behaviors and provides insight about how to effectively manage and change them. Students will learn how organizations can be structured more effectively and how environmental events affect organizations. Prereq: 15ENGL101, 15ENGL102, 15ENGL103. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ORGL400  Foundations of Leadership
A general introduction to and analysis of historical and current theories of leadership. The course is designed for undergraduate students and gives attention to research findings about leadership, the practice of leaders, and skill development. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15ORGL450  Teaching Assistant Practicum for Undergraduate Studies
Supervised experience as teaching assistant for undergraduate organizational leadership courses. Can take three quarters. Organizational Leadership GPA of 3.0 or better and at least 21 credit hours in the major required. Must have at least a grade of B or better in the course served as a TA and perm. of instructor. Offered each quarter. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15ORGL500  Leadership for Organizational Effectiveness
This course focuses on leadership, profit maximization and organizational sustainability. Formerly LEADERSHIP FOR PROFIT MAXIMIZATION Prereq: 15ECN101, 15ORGL400. BoK: SS, QR. Credit Level: U. Credit Hrs: 3.00

15ORGL501  Leadership for Organizational Effectiveness II
This course is the second in a sequence of two that focuses on leadership, profit maximization and organizational sustainability. Formerly LEADERSHIP FOR PROFIT MAXIMIZATION Prereq: 15ECN101, 15ORGL400, 15ORGL500. BoK: SS, QR. Credit Level: U. Credit Hrs: 3.00

15ORGL502  Lessons in Leadership
Designed to cover current leadership issues facing private and public, for profit and not-for-profit organizations. A wide variety of corporate, government and other organizational leaders will serve as guest speakers and discuss current leadership issues. Students have the opportunity to examine multiple theories and ideas of leadership in order to develop insights for their own personal leadership development. development. Prereq: 15ORGL501. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15ORGL505  Special Problems in Organizational Leadership
For students who desire individual work, by prior arrangement with the Center for Organizational Leadership. Offered each qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-9.00

15ORGL550  Capstone
Taken in the senior year, students operate in an approved leadership role (for example, in a student organization, as community volunteer, at work, etc.) Students synthesize and report their experiences as they relate to the theoretical foundations of leadership being studied. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

H=University Honors course.
Public Administration

15PBAD235
American Health Policy
A survey of the history of health care delivery in the US, including the relationship of the public and private sectors in health care policy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PBAD535
American Health Policy
A survey of the history of health care delivery in the US, including the relationship of the public and private sectors in health care policy. BoK: NA. Credit Level: G. U. Credit Hrs: 4.00

15PBAD721
Public Personnel Administration
Theory and practice of personnel administration in American national, state, and local governments. Credit Level: G. Credit Hrs: 4.00

15PBAD722
Collective Bargaining in the Public Sector
Theory, practice, and problems of labor-management relations in the public services. Credit Level: G. Credit Hrs: 4.00

15PBAD723
Principles in Quality Management
Application of management principles and techniques to the public sector. Credit Level: G. Credit Hrs: 4.00

15PBAD724
Methods of Policy Analysis & Administration
Develops understanding of core methods for Public Administration. Credit Level: G. Credit Hrs: 4.00

15PBAD725
Administrative Law
Procedural requirements resting on administrative agencies: notice and hearing; rulemaking; adjudication. Case approach. Credit Level: G. Credit Hrs: 4.00

15PBAD726
Pro-seminar in Organization Theory and Behavior
Analysis of various theories of organization and their application to public administration. Credit Level: G. Credit Hrs: 4.00

15PBAD727
Proseminar: Administrative Ethics
Analysis of ethical issues faced by public administrators. Credit Level: G. Credit Hrs: 4.00

15PBAD728
Organizational Integration & Administration
This course surveys the basic principles of integrating and developing public sector organizations. Credit Level: G. Credit Hrs: 4.00

15PBAD730
Public Budgeting
Theories and concepts of public budgeting within the political context of U.S. government structures. Credit Level: G. Credit Hrs: 4.00

15PBAD731
Public Financial Management

15PBAD732
Computer Applications in Public Administration
Introduces basic computer skills for public administration. Prereq: 15POL652. Coreq: 15PBAD731. Credit Level: G. Credit Hrs: 4.00

15PBAD733
Fund Accounting for Public Administration
Introduces the basic principles of governmental accounting, financial statement preparation and analysis, the concept and principles of fund accounting, auditing and the attest function, the relationship of administration to the accounting department, how to use accounting data as a non-financial manager, encumbrance accounting and the integration of the budgeting process. Prereq: 15PBAD732. Credit Level: G. Credit Hrs: 4.00

15PBAD735
Public Sector Decision Making
Theories and techniques of rational decision making with emphasis on public sector applications. Credit Level: G. Credit Hrs: 4.00

15PBAD736
Issues in Public Administration
Examination of selected issues in public administration. Credit Level: G. Credit Hrs: 4.00

15PBAD750
Introduction to Economic Development Administration
This course analyzes the basic principles affecting economic development in the public sector. Credit Level: G. Credit Hrs: 4.00

15PBAD827
Public Administration Theory
The intellectual development of American public administration; major concepts and problems in the field. Credit Level: G. Credit Hrs: 4.00

15PBAD839
Internship in Public Administration
Seminar integrating theory, research experience in public affairs, administration. 15-085-890 MPA Working Paper. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15PBAD890
MPA Working Paper Seminar
This is a basic research methods course where students prepare a preliminary research proposal. The seminar will provide students an opportunity to revise the proposal and focus on the research project within the structure of a class. Credit Level: G. Credit Hrs: 4.00

15PBAD891
Independent Workshop—Public Administration
To be arranged. Credit Level: G. Credit Hrs: 1.00-4.00

Professional Development

15PD250
Career Development for Arts and Sciences
Under the guidance of the Career Development Center, this course will provide an orientation to the world of work and instruction in career planning and decision making. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Philosophy

15PHIL101
Moral and Political Ideas
MORAL-POLIDEAS(M&I) Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL101H
Moral Political Ideas - Honors
Selected ethical, political, and social theories in ancient and Medieval philosophy. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL102
Moral and Political Ideas
Selected ethical, political, and social theories from the Renaissance to the 19th century. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL102H
Moral and Political Ideas - Honors
MORAL-POLIDEAS Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Philosophy

15PHIL103
Moral and Political Ideas
Selected ethical, political and social theories in 20th century thought. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL103H
Moral and Political Ideas - Honors
MORAL POL IDEAS Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL104
Introduction to Philosophy: Belief and Knowledge
Introductory readings, surveying classical problems in the theory of knowledge. A General Education course. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL105
Introduction to Philosophy: Mind and Will
Introductory readings surveying classical problems in metaphysics. A General Education course. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL106
Introduction to Philosophy: Ethics
Introductory readings surveying classical problems in ethics and values. A General Education Course. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL107
Introduction to Philosophy: Through Movies
A survey of philosophical topics through modern media, particularly film. Topics will include ethics, language, epistemology, science, philosophy of mind, and religion. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL108
Philosophy: Mind and Will
An alternative non-General Education course corresponding to 15-065-105. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL109
Contemporary Moral Issues
Philosophical and ethical issues underlying major controversies of the day: rights, freedom and punishment; sex, euthanasia, abortion; business ethics. Offered alt. yrs. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL110
Early Philosophy of Nature
Survey of ancient world views, our place in nature, and how we acquire knowledge. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL111
Philosophy of the Scientific Revolution
Development of the modern worldview. The impact of Copernicus, Galileo, Newton and others on our understanding of nature and society. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL112
Humanity and Technology
The impact of scientific knowledge and changing technology of our understanding of nature, culture, and the individual. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL115
Introduction to Philosophies Around the World
A General Education Approved course, emphasizing critical thinking in written assignments. It surveys the wisdom traditions of non-western cultures and the philosophical (wisdom) tradition of Western culture. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15PHIL121
Critical Thinking
Introduction to the techniques of clear and careful reasoning. Transfer Module. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL123
Introduction to Logic

15PHIL187
Introductory Topics Seminar for Pre-Majors
Seminar for pre-majors and honors students with topics designed to introduce students to philosophy. The course stresses philosophical analysis and writing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL188
Introductory Topics Seminars for Pre-majors and Honors Students
An examination of current topics in philosophy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL189
Introductory Topics Seminars for Pre-majors and Honors Students
An examination of current topics in philosophy. The second offering in a two-part course sequence. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL207
Minds and Machines
Can machines think? Is artificial intelligence possible? People have long wondered whether machines could be made to think. In this course we will study the central issues in current philosophical consideration of minds and machines. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL215
Logic of Decision
An introduction to some of the technical concepts useful in decision making, such as probability and utility, and some of the philosophical puzzles associated with the subject. Students should be competent in high school level algebra. BoK: QR., HU. Credit Level: U. Credit Hrs: 3.00

15PHIL219
Women and Philosophy
A survey of what male philosophers have thought about women and what women have written in response. Four fundamental philosophical concepts and their development in relation to women are investigated: humanity, rationality, morality, and citizenship. How women philosophers are transforming these traditional concepts are also explored. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL220
African Philosophy
A survey course on the question of “What is African philosophy?” The metaphysics and ethics of African philosophical traditions like animism and Islam. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL221
Native American Philosophy
Metaphysical and ethical issues as approved in Native American philosophical traditions. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL225
Directed Study I
Independent work for students in the area of Philosophy. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 1.00-3.00

15PHIL226
Directed Study II
Independent work for students in the area of Philosophy. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 1.00-3.00

15PHIL227
Directed Study III
Independent work for students in the area of Philosophy. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 1.00-3.00

H=University Honors course.
Philosophy

15PHIL229 Philosophy and Atheism
Atheism, the belief that there are no gods at all, is the "default" position of any modern naturalistic philosopher, i.e. one that sees philosophy and science as contiguous. This course is a critical defense of this position when compared with its rivals, theism and agnosticism. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL230 Philosophy and Religion
Arguments for the existence of God and introduction to metaphysics of religious belief. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL231 Science, Magic and the Occult
An investigation of the contribution of ancient magic and occult philosophies to religion and the rise of modern science. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL235 Pre-Scientific Thought

15PHIL243 Philosophy and Technology
An introduction to the philosophical and ethical issues raised by modern technology. A General Education course. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL244 Computers and Controversy
Ethical and philosophical issues raised by computer technology. A General Education course. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL245 Introduction to Environmental Ethics
The philosophical bases for reasonable arguments establishing that at least some aspects of nature should be preserved in the raw and wild state. A General Education course. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL246 Environmental Ethics H
An honors section of 15-065-245. The philosophical bases for reasonable arguments establishing that at least some aspects of nature should be preserved in the raw and wild state. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL247 Ethics of Scientific Research
Introduces future scientists to ethical considerations that commonly arise while doing scientific research. Issues such as funding, publishing, and intellectual property will be incorporated with consequentialist and deontological ethical theories to help students understand and evaluate situations often faced by scientists. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL248 Philosophy of Education: The Ideal University
An introduction to the main conception of the ideal university and academic freedom. A General Education course. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL250 Aesthetics for Fine Arts Majors
Philosophical issues related to the fine arts, such as the nature of art and artistic expression. For majors in Fine Arts and related fields. Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL252 Issues on Social and Political Philosophy
Selected issues: rights, capital punishment, civil liberties, abortion. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL261 Philosophy of Physical Sciences
Introduction to philosophy of science. Examination of roots of modern physical science as found in thought of such scientists as Copernicus, Galileo, Kepler, Bogle and Newton. (College level science not presupposed.) BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL262 Philosophy of Biological Sciences
Introduction to philosophy of science. Examination of roots of modern biological science as found in the thought of such biologists as Galen, Harvey, Lamarck, Darwin and Mendel. (College level science not presupposed.) BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL263 Philosophy of Social Sciences
Introduction to the philosophy of science. Representative topics: social sciences and value judgments, behaviorism and determinism, psychoanalysis and freedom, etc. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL271 Marx and Marxism
An interdisciplinary course on the concepts of human nature in the theoretical views of Marx and 20th-century Marxism. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL277 Philosophy and The Arts
(See 197.) An introduction to aesthetics, concentrating on problems such as: definition of art, art for art's sake, Marxist views of art as a social form, literary criticism, and the psychoanalytic interpretation of literature. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL280 Love Anger Fear and Other Emotions: Philosophical Perspective
Philosophical perspectives on the theory of emotion, addressing questions such as physiological changes, cognitions, action tendencies, and the definition of individual emotions such as love, anger, and fear. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL287 Descartes' Meditations and Self-reliance
The goal is to bring out the positive value of self-reliance and autonomy in our thinking. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL289 Special Topics in Philosophy
This course is designed to give the faculty the opportunity to cover topical issues in the field. Perm of Department. BoK: HU. Credit Level: U. Credit Hrs: 1.00-3.00

15PHIL303 Philosophy of Psychology
Introduces the philosophy of psychology/cognitive science. Topics covered include: folk psychology, mental state attribution and human rationality, behaviorism, functionalism and representationalism, and the role of language in cognition. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL304 Metaphysics
A survey of systematic metaphysical positions. Study of Bradleyan Absolute Idealism, etc. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL305 Epistemology
An introduction to analytic epistemology. Analysis of knowledge, belief and knowledge, evidence, objects of belief and knowledge, scientific (theoretical) knowledge, empirical knowledge and skepticism. BoK: HU.
15PHIL305
Epistemology
Credit Level: U. Credit Hrs: 3.00

15PHIL306
Metaethics
A survey of the Anglo-American tradition in ethical theory from G.E. Moore to present. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL307
Philosophy of Mind
The Mind-Body problem, psychological explanation, philosophical behaviorism. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL308
Philosophy of Science
Issues in the philosophy of science. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL309
Philosophy of Language
Investigation of truth, reference, and meaning through philosophical works in the twentieth century. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL310
Rationalism
Great rationalists: Descartes, Leibniz, Spinoza. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL311
Empiricism
Great empiricists: Hume, Locke, Berkeley. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL312
Ancient Philosophy
A study of the pre-Socratics, Plato, and Aristotle. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL314
Chinese Philosophy
Course will examine central texts and exposition of the main ideas of Confucianism and Taoism. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL315
Kant's Metaphysics
Immanuel Kant (1724-1804) was one of the most influential philosophers of all time. This course will be an examination of Kant’s great work, The Critique of Pure Reason, in which Kant asks, “What must the world be like in order that the mind can know it?” BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL317
Introduction to Pragmatism
An introduction to pragmatism by means of analysis of some of the writings of Pierce, James, Dewey, Mead, Addams, or Lewis. Recent developments in the pragmatist tradition may also be discussed in writings of Quine, Rorty, or Putnam. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL320
Marx
Philosophical foundations and development of selected topics in 19th and 20th century Marxism, e.g., Hegel, Feuerbach, Marx, Engels, Luxemburg, Lenin, Trotsky, Lucas, Gramsci. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL321
Wittgenstein
An in-depth examination of Wittgenstein’s early and late philosophies, especially his influence in epistemology and the philosophy of language. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL322
Ethics
A survey of recent and traditional work in ethical theory. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL323
Soc/Pol Philos
(Formerly 30PHIL272, Ethics & Politics II; or Democratic Theory.) Liberal and conservative thought traced from Plato, Aristotle, to modern times. Readings in Locke, Rousseau, Mill, Burke, Tocqueville, Oakeshott, Dewey, etc. Offered every third yr. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL324
Ethics and Animals: Human Obligations Toward Other Species
An introduction to the moral problems raised by our killing, eating and experimenting on non-human animals. Course emphasis will be on learning how to address an emotionally explosive normative issue in a rational and coherent way, drawing on the main traditions in moral philosophy from ancient to modern. Transfer Module. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL325
Environmental Ethics
A survey of three components of environmental ethics: condition of the global environment, relation of philosophical, scientific and economic approaches, and the role our conception of nature plays in discussion of environmental problems. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL327H
Privacy, Security and Risk In The Information Society, Honors
A philosophical examination of the emerging social ethical, political and economic issues raised by the computerization of our society. The seminar will concentrate on time related issues of privacy security, and risk as they affect the nature of commerce and community in an information society. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PHIL329H
Faith & Reason, H
An inquiry into the role of reason in religious belief, especially as contrasted with non-rational faith. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL330
Philosophy and Religion
Examines how religious beliefs differ from common sense, empirical science, and mathematics? What are the main beliefs of Christianity, Judaism and Islam? What are the arguments for and against God’s existence? How can God’s omniscience be reconciled with free will, and his goodness and omnipotence with evil? What is mysticism? BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL333
Feminist Political Philosophy
An introduction to feminist theory. Discussion of central moral, social, and political claims. Consideration of implications of feminism for men, women, and children in our society. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL334
Early Modern Women Philosophers
This course offers a broad overview of the work of women philosophers of 17th and 18th Centuries; and will be divided into 3 sections: metaphysics and epistemology, moral philosophy, and philosophical feminism. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL341
Symbolic Logic I
First-order logic: syntax, natural deduction proof theory, and model theory up to the completeness proof. BoK: HU., QR. Credit Level: U. Credit Hrs: 3.00
Philosophy

15PHIL342 Symbolic Logic II
First-order logic: syntax, natural deduction proof theory, and model theory up to the completeness proof. The second offering in a two-part course sequence. Prereq: 15PHIL341. BoK: HU, QR, Credit Level: U. Credit Hrs: 3.00

15PHIL345 Issues of the Information Age
The impact of computing and information technology on the moral and legal principles that give order to our society, and on notions of society, community, and self. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL352 Problems of Consciousness
This course will introduce students to recent philosophical and scientific work on the nature of subjective conscious experience. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL353 Philosophy and Race
A focused survey of current theoretical literature on the meanings, functions and constructions of race and racial identity, especially in the U.S. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15PHIL362 Existentialism
Existentialism will begin with a consideration of some of the writings of Kierkegaard and Nietzsche. Examines such 20th-century writers as Sartre and Camus. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL363 Nietzsche
Does life have meaning? Our elucidation of the question will take as its starting point the pessimism of Schopenhauer with an evaluation of its strength and weakness. The relevance of the past and future. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL364 Existentialism II
A clarification of the philosophical ideas of Sartre's existentialism such as being-in-itself, being-for-itself, and consciousness. Sartre's most popular ideas such as freedom, death, and bad faith. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL365 The Darwinian Revolution
An examination of the Darwinian Revolution, and the issues it raised. Readings from Darwin and his contemporaries, as well as more recent secondary sources. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL366 NeoDarwinism
The development of Darwinism in the 20th Century, emphasizing the contributions of modern genetics. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL367 Philosophy and Cognitive Ethology
Explores the philosophical foundations of cognitive ethology. Do nonhuman animals have rich cognitive mental lives? Was Descartes right when he said nonhuman animals are "automatons?" Students will read a cross section of scientific and philosophical literature which engages these questions. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL370 Philosophy, Environment and Wilderness Honors
This is a course on the historical, theoretical, and practical issues concerning wilderness values. The conceptions of wilderness have a history, both a world history and an American history. How have ideas about what wilderness is changed and what conditions are there rational bases for so-called wilderness values? Are they best understood and assessed? Study of the Greater Yellowstone Ecosystem will be a test case for the application of wilderness values and their social and political support. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL371H Reading & Literacy: Theory & Ideology H
An examination of the current work on literacy, focusing on curriculum and on the social and political issues of literacy. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL372H Why We Suffer: the Philosophy & Science of Pain, H
Topics: history of ideas about pain; recent pain science; types of pain; biological role(s) of pain experience; the differences in pain experience among different social/cultural groups; the notion of suffering; the meaning of pain in light of theistic views—the problem of evil. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL373 Introduction to the Philosophy of Law: Justice
Justice, plea-bargaining, entrapment, affirmative action, gender issues and the law, criminal defenses. A General Education course. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL374 Introduction to Philosophy of Law: Freedom
An examination and moral evaluation of freedom of speech, freedom of action and the proper limits of government power over the individual. A General Education course. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL375H Philosophy of Law:Justice Honors
Justice, plea-bargaining, entrapment, affirmative action, gender issues and the law, criminal defenses. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL376 Philosophy of Law: Freedom, Honors
An honors section of 15-065-374. An examination and moral evaluation of freedom of speech, freedom of action and the proper limits of government power over the individual. A General Education course. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL378 Locke's Essay
Through the medium of Locke's Essay Concerning Human Understanding (1690), we will discuss central philosophical topics, such as the origin of concepts, the difference between primary and secondary qualities, our knowledge of the essences of things, the nature of linguistic communication and personal identity across time, and freedom of the will. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL381 Science, Philosophy and Society
Examines scientific rationality, the role of science in society and the impact of society on science. It will focus on issues such as the nature of scientific method and of scientific truth, free inquiry and social and ethical constraints on research in a democratic society. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL386 Metaphysical Foundations of Technology
Issues in the development and application of technology and their relationship to traditional philosophical concerns with human identity, the meaning of life, the nature of knowledge, and the relation between the individual and society. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Philosophy

15PHIL388H The Darwinian Revolution
Evolutionary theory in the 19th Century, the intellectual and social context crucial to that theory, and the immediate scientific responses to Darwin’s theory in the last half of the century. The course will be wide-ranging, covering not only Darwin’s On the Origin of Species (1859), but also original writings from Darwin’s contemporaries. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL389H The Possibility of Human Altruism
An exploration of biological and psychological answers to the question, “Is it possible for humans to be altruists?” The course is offered in seminar style. Students will be asked to actively participate in discussion and to write several short critical essays. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

15PHIL390H The Evolution of Cognition, H
In this course we aim to explore theories of the evolution of cognitive capacities in humans and in non-human animals, and their significance for philosophical theories of the nature of mind and cognition. Of special interest will be the evolution of capacities that underly language use, and of perception. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL391H Loyalty, Patriotism and War
What is loyalty and patriotism? Do they impose a moral obligation to go to war? How do the moral claims of family, friends, and nation “those nearer and dearer to you” balance against humanity at large? This course addresses these questions by readings from relevant philosophers and short essays. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL392H The Linguistic Basis for Conceptual Thought
Examines the debate between those who think that conceptual thought is independent of language and those who think that language acquisition is the key to the child’s ability to think conceptually. We will read texts by both cognitive psychologists and contemporary philosophers. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL393H Ethics and Individualism
The clash of western values and religious fundamentalists is at the center of the political world stage today. But what are the western values at stake? Examines works by Immanuel Kant, John Stuart Mill, and Friedrich Nietzsche, which lay out three important approaches to Ethics - Deontology, Utilitarianism, and Ethical Egoism. Focuses on these ethical systems, but we will also consider how, despite the vast differences between their systems, each philosopher champions free-thinking individuals. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL394H Art and Emotion
A study of the way in which emotions enter into the creation and the experience of works of painting, literature, music and other art forms. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL395H The Infinite
Examines the concept of the infinite from Greek philosophy and mathematics, through the Middle Ages and Western religion, to modern logic and mathematics. Topics include Zeno’s paradoxes; Aristotle’s extension: Medieval matter and continuity; Leibniz and Newton’s on the calculus: numbers (the naturals, integers, and reals) in modern mathematics; modern set theory’s transfinite sets; and the continuum hypothesis. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL396H Conversations About Life
Built into college life are the late night conversations about love, sex, religion, politics, -- life’s important things. This seminar is designed to encourage this tendency in an informal but structured setting. Serious topics will be selected by the students and then "hashed out" with the professor contributing to give direction and suggestions. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL397H Eye, Mind and Art
Psychologists and cognitive scientists now know a lot about how the brain processes visual information. In this course we will examine the different kinds of visual experience involved in our appreciation of the various visual arts -- photography, painting, sculpture, architecture, film, etc. -- drawing on work by philosophers, critics, art historians, and cognitive scientists. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL398H Scientific Philosophy of Color
Examines the debate between those who think that conceptual thought is independent of language and those who think that language acquisition is the key to the child’s ability to think conceptually. We will read texts by both cognitive psychologists and contemporary philosophers. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL399H Genetics and Bioethics
The fifty years since the “discovery” of the structure of DNA has seen a revolution in molecular biology. The impact goes beyond science, including agriculture, medicine, and law. The course focuses on a book by one of the founders, James Watson, which discusses the scientific, social, and ethical issues raised. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL407 Philosophy of Mind II
A detailed examination of central issues in philosophy of mind. Topics may include: behaviorism, identity theories, functionalism, anomalous monism, representation, intentionality, psychosemantics, mental causation, consciousness, qualia, and reductivism. Follows 15PHIL307. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL410 History of Modern Aesthetics
History of modern aesthetics from 1750 to the present. First quarter centers on British Empiricism (Hume, Hutcheson), Kant and Hegel. Second quarter devoted to legacy of Idealism and Romanticism, Schopenhauer, Nietzsche, Croce, and other influential figures. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL411 History of Modern Aesthetics
19th c. aesthetics. The German Tradition: Schiller, Schlegel, Schelling, Hegel, Schopenhauer, Nietzsche. Themes include Romanticism and Classicism, art as the expression of feeling, art as the revelation of truth, art as concrete universal. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL421 Aesthetics
An introduction to aesthetics: nature of art, art as imitation, art as form, art as expression of emotion, contemporary theories of art, etc. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL422 Aesthetics
An introduction to aesthetics. Topics include style and expression in the arts, representation and symbolism, interpretation and criticism. Examples from painting, literature, music, photography, architecture, etc. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL423 Aesthetics: Philosophy and Architecture
An introduction to aesthetics of the visual arts. Philosophical topics on the arts of painting, photography, architecture and sculpture, as well as the nature of art history and art criticism. BoK: HU. Credit Level: U.
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H=University Honors course.
The philosophical theories deployed to solve the ethical problems rest. It will then dwell on the social challenge of the genetic age and momentum to research and debates in this field. This course will first discipline and recent biotechnological innovations have given a Philosophy of medicine cum bioethics has become a genuine academic 3.00 Kirkegaard and Nietzsche. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00 evocation of emotion, etc.) Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 3.00 An advanced course in philosophical aesthetics, focusing on the role of cognition and motivation in emotion, the rationality of emotion, the role of physiological change in emotion, etc. For advanced students only. BoK: HU. Credit Level: U. Credit Hrs: 3.00 This course will examine philosophical theories of emotion, including the role of cognition and motivation in emotion, the rationality of emotion, the role of physiological change in emotion, etc. For advanced students only. BoK: HU. Credit Level: U. Credit Hrs: 3.00 A survey of theories of meaning in natural language. Emphasis will be on the semantics of conditionals. Prereq: 15PHIL341. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL555 Philosophy of Language Issues in meaning, reference, and truth as seen in the work of Frege, Russell, and other twentieth century thinkers. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00 15PHIL556 Philosophical Logic Selected problems in logic with implications for traditional philosophical problems. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00-5.00 15PHIL557 Topics in Semantics A survey of theories of meaning in natural language. Emphasis will be on the semantics of conditionals. Prereq: 15PHIL341. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL558 Theories of Interpretation This course will examine the philosophical literature pertaining to the methods by which we determine what people believe and desire and what their words mean. Topics include: Radical interpretation (Davidson, Quine), the theory- theory (Ramsey, Stich and Nichols) and the simulation theory (Stueber, Gordon and Goldman). BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL559 Concept of Emotion This course will examine philosophical theories of emotion, including the role of cognition and motivation in emotion, the rationality of emotion, the role of physiological change in emotion, etc. For advanced students only. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL560 Aesthetics and the Philosophy of Mind An advanced course in philosophical aesthetics, focusing on the connections between art and emotion (the expression of emotion, the evocation of emotion, etc.) Perm of Instructor. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL561 Perceptual Representation Examines contemporary philosophical literature on the structure and content of perceptual representations. Focus is on the question of what perceptions represent (objects, states of affairs, scenarios?) and what it means to say that a perception represents one of those things. This issue has a bearing not only on larger issues in the philosophy of mind but also on issues in epistemology and the philosophy of language. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL565 Philosophy of Music This course will examine the question of meaning in music. Can 'pure' instrumental music have meaning and, if so, how? A number of theories of musical meaning will be examined. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL566 20th-Century Existentialism French existentialism of the post-war era. BoK: HU., SE. Credit Level: U. G. Credit Hrs: 3.00-5.00 15PHIL567 ETHICS Topics on recent Anglo-American analytic moral philosophy. BoK: HU., SE. Credit Level: U. G. Credit Hrs: 3.00 15PHIL568 Political Philosophy Study of recent social and political philosophy, especially that of John Rawls. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00 15PHIL569 Cartesianism This course will study the affect Cartesian philosophy and physics on 17th Century logic and semantic theory. In conjunction with secondary reading, the primary text will be Arnauld and Nicole "Art of Thinking" (the "Port-Royal Logic"), and relevant texts by Descartes, Arnauld, and Malebranche. We will see how Cartesian dualism necessitated both a rejection of the standard Aristotelian causal theory of reference and its replacement by a semantics of ideas based on esse subjectum and intentionality. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL570 Contemporary Metaphysics Issues in metaphysics: freedom of the will, the nature of space and time, personal identity, causality. BoK: HU. Credit Level: U. Credit Hrs: 3.00-5.00 15PHIL571 Contemporary Epistemology Issues in the theory of knowledge in the 20th Century. BoK: HU. Credit Level: U. G. Credit Hrs: 3.00-5.00 15PHIL572 20th C. Philosophy of Science Scientific Confirmation This is an advanced course, examining accounts of confirmation within scientific disciplines, including recent work on Bagesianism. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL573 Contemporary Philosophy of Mind An examination of recent work in philosophy of mind and cognitive science. Recent work in philosophy of mind as it pertains to artificial intelligence, psychology, and neuroscience. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL574 Philosophical Psychology Study of philosophical assumptions in modern psychological theories of cognition and emotion. BoK: HU. Credit Level: U. G. Credit Hrs: 3.00 15PHIL575 Continential Epistemology Post structuralism and deconstruction as responses to Cartesian epistemology which privileges the thinking subject and treats the contents of consciousness as foundational. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL576 Leibniz An investigation of Leibniz logic and metaphysics. BoK: HU. Credit Level: U. Credit Hrs: 3.00 15PHIL577 Feminist Philosophy Explanation of current topics and questions in feminist philosophy

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Philosophy

15PHIL577 Feminist Philosophy
including epistemology, ethics, and social philosophy. BoK: DC., SE. Credit Level: U. G. Credit Hrs: 3.00-5.00

15PHIL578 Philosophy of Technology
Relates theoretical and practical problems about the nature and function of technology to traditional philosophical concerns with the nature of knowledge, the legitimation of power, the meaning of life, and the justness of society. The impact of specific technologies on work and war and government, life and death is also studied. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL579 Philosophy and Neuroscience
An interdisciplinary study of neuroscience and its philosophy. Topics might include relationship between levels of explanation and investigation in the neurosciences; neuroscientific methods—applications and limits; localization of cognitive functions to neural regions; mechanism, emergence or reduction in neuroscientific practice. Readings are drawn from both philosophical and neuroscientific sources. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL580 Literary Theory
Recent movements in literary theory (1940-present and theories of critical interpretation which they embody. BoK: HU. Credit Level: U. G. Credit Hrs: 3.00-5.00

15PHIL581 Approaches to Fiction
An analysis of some philosophic questions concerning the reading of fiction (Why do we feel emotions for Anna Karenina, when she does not exist?) and the educational function of fiction. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL582 Ethical Theory
Advanced course in ethical theory including such topics as relativism, subjectivism, values, and the sources of normativity. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL583 Reasons for Action
A review of classic and contemporary works on practical reason, focusing on reasons for action. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL585 Scientific Theories
This course focuses on the nature and structure of scientific theories, an issue central to the philosophy of science. The transition from the positivist syntactic to the post-positivist semantic conception of theories is explored paying special attention to interpretation of the relationship between theory and real world. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL586 Plato's Later Dialogues

15PHIL587 Philosophy of Science: Experiment
Critically explores the "experimental turn" in philosophy of science. Questions concerning the structure and epistemology of experimentation in science will be explored. Specific issues include the relationship between theory and experiment, conceptual foundations of experimental design, and the heuristic role of specific reasoning strategies employed in experimentation. Prereq: 15PHIL104, 15PHIL105, 15PHIL106. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Philosophy of Science: Experiment

An advanced course in the historical and conceptual foundations of biology. Problems including the structure of evolutionary theory, reduction of Mendelian to molecular genetics, role of chance in evolution, species concepts, foundations of evo-devo, and laws in biology are approached by way of historical and contemporary cases from biology. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL589 History and Philosophy of Science
Survey of issues relating to the aims and methods of history of science/philosophy. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL590 Early 20th Century Philosophy
An examination of some of the views of representative early 20th century Anglo-American philosophers such as F.H. Bradley, B._Russell, G. E. Moore, William James or others. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL591 20th C. Philosophy of Science: Scientific Explanation
An advanced course in philosophy of science, focusing on development in the theory of explanation, including statistical explanation. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL592 Philosophy of Science Since World War II
A critical survey of developments in philosophy of science since World War II, including positivism, postpositivism and postmodernism. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL593 Philosophy of the Social Sciences
Critical survey of prominent philosophical traditions in the social sciences, focusing on the relations between the natural and social sciences and the similarities and differences between Anglo-American and Continental philosophies. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

15PHIL594 Philosophical Foundations of the Sociology of Knowledge.
Explores a range of philosophical issues generated by the program of the sociology of knowledge for replacing philosophical with scientific analyses of science and its historical development. Sociological naturalism replaces normative theories of the rationality of science with descriptive accounts of the formation of scientific beliefs and the behavior of scientists. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15PHIL598 Kant
An intensive study of the metaphysical writings of Immanuel Kant. BoK: HU. Credit Level: U. G. Credit Hrs: 3.00

15PHIL599 Special Topics: Political Philosophy, Marx
An advanced examination of the contributions of Marx to political philosophy. BoK: HU., SE. Credit Level: U. G. Credit Hrs: 3.00

15PHIL621 Mathematical Logic I
Propositional and first order logic. Proof systems, such as Hilbert-style proofs, natural deduction systems, or resolution proofs. Compactness, completeness, and model-theoretic techniques. Mathematical case, writing proofs of metatheorems about logic. BoK: QR. Credit Level: U. G. Credit Hrs: 3.00-5.00

15PHIL622 Mathematical Logic II
Propositional and first order logic. Proof systems, such as Hilbert-style proofs, natural deduction systems, or resolution proofs. Compactness, completeness, and model-theoretic techniques. Mathematical case, writing proofs of metatheorems about logic. The second offering in a
Philosophy

15PHIL622 Mathematical Logic II
three-part course sequence. Prereq: 15PHIL621. BoK: QR. Credit Level: U. G. Credit Hrs: 3.00-5.00

15PHIL623 Mathematical Logic III
Propositional and first order logic. Proof systems, such as Hilbert-style proofs, natural deduction systems, or resolution proofs. Compact- ness, completeness, and model-theoretic techniques. Mathematical case, writing proofs of metatheorems about logic. The third offering in a three-part course sequence. Prereq: 15PHIL622. BoK: QR. Credit Level: U. G. Credit Hrs: 3.00-5.00

15PHIL701 Individual Work
To be arranged each quarter between graduate student and faculty member. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL702 Individual Work
To be arranged each quarter between graduate student and faculty member. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL703 Individual Work
To be arranged each quarter between graduate student and faculty member. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL704 Graduate Pro-seminar
Mentoring on classroom teaching and professional activities concerned with teaching. Philosophy GAs only. Credit Level: G. Credit Hrs: 1.00-5.00

15PHIL705 Pain: Conceptual and Empirical Issues
An inquiry into conceptions or theories of the nature and role of pain in human and animal psychology, with topics that might include the following: history of the notion of pain, the neurophysiological systems implicated in pain experiences, multiplicity and diversity of pain types and syndromes, the biological role of pain, pain and emotion, and the implications of recent pain sciences for some philosophical issues. Credit Level: G. Credit Hrs: 5.00

15PHIL708 Introduction to Philosophy of Science and Scientific Reasoning
Designed specifically for graduate students in the MST degree program. Students are introduced to central episodes and issues in the history and philosophy of science, with a focus on concepts and examples chosen for high school science instructors to use in their lectures and discussions. Credit Level: G. Credit Hrs: 2.00

15PHIL715 Empiricism: Locke
Advanced introduction to metaphysics and epistemology of John Locke. Credit Level: G. Credit Hrs: 5.00

15PHIL716 Empiricism: Berkeley
Will examine closely the philosophy of George Berkeley. Credit Level: G. Credit Hrs: 5.00

15PHIL717 Empiricism: Hume
An advanced introduction to Hume's theory of human nature and epistemology. Credit Level: G. Credit Hrs: 5.00

15PHIL720 Contemporary Ethics
Philosophical work in ethics over the past century. Topics will be drawn from metaethics, ethical theory, normative and/or applied ethics. Credit Level: G. Credit Hrs: 5.00

15PHIL725 Critical Theory
CRITICAL THEORY Credit Level: G. Credit Hrs: 5.00

15PHIL730 Happiness in Greek Philosophy
Selected topics, with emphasis on contemporary accounts of conscious experience. Readings include recent and forthcoming books by Chalmers, Dretske, Kim, Levine, Lycan, Perry, Putnam, or Van Gulick. Credit Level: G. Credit Hrs: 5.00

15PHIL732 Recent Philosophy of Mind
An advanced course in philosophy of mind, focusing on particular topics or figures in recent philosophy of mind and philosophical psychology. Topics may include consciousness, intentionality, functionalism, identity theory, reductionism, psychological laws, mental causation, and other debates. Credit Level: G. Credit Hrs: 5.00

15PHIL740 Philosophy and Evolutionary Biology
Issues raised for philosophy of science by evolutionary biology. Topics include the significance of adaptation and development, genetics and reductiveism, and ecological theory. Credit Level: G. Credit Hrs: 5.00

15PHIL741 Readings in Logic
First-order logic: syntax, natural deduction proof theory, and model theory up to the completeness of proof. Credit Level: G. Credit Hrs: 5.00

15PHIL742 Readings in Logic
Continuation of 741. Prereq: 15PHIL741. Credit Level: G. Credit Hrs: 5.00

15PHIL743 History of Logic
Ancient, Medieval, Renaissance, and 19th-century logic. Credit Level: G. Credit Hrs: 5.00

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Philosophy

15PHIL744  
Topics in Philosophical Methodology  
An examination of historical and contemporary approaches to philosophical method and practice. Topics may include pragmatism, conceptual analysis, the linguistic turn, phenomenology, scientific naturalism, and experimental philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL745  
Descartes  
An in-depth account of the philosophical and scientific views of Descartes in historical context. Credit Level: G. Credit Hrs: 5.00

15PHIL746  
Seminar: Plato  
An advanced examination of the main philosophical contributions of Plato. Credit Level: G. Credit Hrs: 5.00

15PHIL747  
Aristotle  
An advanced examination of the main philosophical contributions of Aristotle. Prereq.: 104, 105, 106 or equiv. Credit Level: G. Credit Hrs: 5.00

15PHIL748  
Medieval Philosophy  
A study of the work of medieval thinkers such as Aquinas, Anselm, Duns Scotus, and William of Ockham. Credit Level: G. Credit Hrs: 5.00

15PHIL749  
Topics in Logic  
This course covers the valuational and model theoretic semantics for the standard systems of sentential many-valued logic, and extensions of first-order logic to modal and epistemic logic. Emphasis is on the evaluation of alternative account of the logical entailment. Credit Level: G. Credit Hrs: 5.00

15PHIL750  
Philosophy of Music  
This course will examine the question of meaning in music. Can 'pure' instrumental music have meaning and, if so, how? A number of theories of musical meaning will be examined. Credit Level: G. Credit Hrs: 5.00

15PHIL754  
Perceptual Representation  
Examines contemporary philosophical literature on the structure and content of perceptual representations. Focus is on the question of what perceptions represent (objects, states of affairs, scenarios?) and what it means to say that a perception represents one of those things. This issue has a bearing not only on larger issues in the philosophy of mind but also on issues in epistemology and the philosophy of language. Credit Level: G. Credit Hrs: 5.00

15PHIL755  
Philosophy of Language  
Issues in meaning, reference, and truth as seen in the work of Frege, Russell, and other twentieth century thinkers. Credit Level: G. Credit Hrs: 5.00

15PHIL756  
Philosophical Logic  
Selected problems in logic with implications for traditional philosophical problems. Prereq.: 241- Symbolic Logic. Credit Level: G. Credit Hrs: 5.00

15PHIL757  
Topics in Semantics  
A survey of theories of meaning in natural language. The emphasis will be on the semantics of conditionals. Prereq: 15PHIL741. Credit Level: G. Credit Hrs: 5.00

Philosophy

15PHIL758  
Theories of Interpretation  
This course will examine the philosophical literature pertaining to the methods by which we determine what people believe and desire and what their words mean. Topics include: Radical interpretation (Davidson, Quine), the theory-theory (Ramsey, Stich and Nichols) and the simulation theory (Stueber, Gordon and Goldman). Credit Level: G. Credit Hrs: 5.00

15PHIL760  
Concept of Emotion  
This course will examine philosophical theories of emotion, including the role of cognition and motivation in emotion, the rationality of emotion, the role of physiological change in emotion, etc. Credit Level: G. Credit Hrs: 5.00

15PHIL761  
Aesthetics and the Philosophy of Mind  
An advanced course in philosophical aesthetics, focusing on the connection between art and emotion (the expression of emotion, the evocation of emotion, etc.) Perm of Instructor. Credit Level: G. Credit Hrs: 5.00

15PHIL762  
Kirkegaard and Nietzsche  
An advanced examination of the main philosophical contributions of Kirkegaard and Nietzsche. Credit Level: G. Credit Hrs: 5.00

15PHIL763  
Social and Ethical Issues in Biomedicine  
Philosophy of medicine cum bioethics has become a genuine academic discipline and recent biotechnological innovations have given a momentum to research and debates in this field. This course will first analyze the central philosophical concepts on which this discipline rests. It will then dwell on the social challenge of the genetic age and the philosophical theories deployed to solve the ethical problems related to genetic intervention. Credit Level: G. Credit Hrs: 5.00

15PHIL765  
20th Century Existentialism  
French existentialism of the post-war era. Credit Level: G. Credit Hrs: 5.00

15PHIL766  
Ethics  
Topics on recent Anglo-American analytic moral philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL767  
Political Philosophy  
Study of recent social and political philosophy, especially that of John Rawls. Credit Level: G. Credit Hrs: 5.00

15PHIL768  
Cartesianism  
Studies the affect Cartesian philosophy and physics in 17th Century logic and semantic theory. In conjunction with secondary reading, the primary text will be Arnauld and Nicole "Art of Thinking", the "Port Royal Logic", and relevant texts by Descartes, Arnauld, and Malebranche. We will see how Cartesian dualism necessitated both a rejection of the standard Aristotelian causal theory of reference and its replacement by a semantics of ideas based on esse objectivum and intentionality.. Credit Level: G. Credit Hrs: 5.00

15PHIL770  
Contemporary Metaphysics  
Issues in metaphysics: freedom of the will, the nature of space and time, personal identity, causality. Credit Level: G. Credit Hrs: 5.00

15PHIL771  
Contemporary Epistemology  
Issues in the theory of knowledge in the 20th century. Credit Level: G. Credit Hrs: 5.00

H=University Honors course.
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15PHIL772
20th Century Philosophy Science: Scientific Confirmation
This is an advanced course examining accounts of confirmation within scientific disciplines, including recent work on Bagesianism. Credit Level: G. Credit Hrs: 5.00

15PHIL773
Contemporary Philosophy of Mind
An examination of recent work in philosophy of mind and cognitive science. Current issues in the philosophy of mind. Credit Level: G. Credit Hrs: 5.00

15PHIL774
Philosophical Psychology
Study of philosophical assumptions in modern psychological theories of cognition and emotion. Credit Level: G. Credit Hrs: 5.00

15PHIL775
Continental Epistemology
Post-structuralism and deconstruction as responses to Cartesian epistemology which privileges the thinking subject and treats the contents of consciousness as foundational. Credit Level: G. Credit Hrs: 5.00

15PHIL776
Leibniz
An investigation of Leibniz logic and metaphysics. Credit Level: G. Credit Hrs: 5.00

15PHIL777
Feminist Philosophy
Explanation of current topics and questions in feminist philosophy including epistemology, ethics, and social philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL778
Philosophy of Technology
Relates theoretical and practical problems about the nature and function of technology to traditional philosophical concerns with the nature of knowledge, the legitimation of power, the meaning of life, and the justness of society. The impact of specific technologies on work and war, cities and government, life and death is also studies. Credit Level: G. Credit Hrs: 5.00

15PHIL779
Philosophy and Neuroscience
An interdisciplinary study of neuroscience and its philosophy. Topics might include relationship between levels of explanation and investigation in the neurosciences; neuroscientific methods; applications and limits; localization of cognitive functions to neural regions; mechanism, emergence or reduction in neuroscientific practice. Readings are drawn from both philosophical and neuroscientific sources. Credit Level: G. Credit Hrs: 5.00

15PHIL780
Literary Theory
Recent movements in literary theory (1940-present) and theories of critical interpretation which they embody. Credit Level: G. Credit Hrs: 5.00

15PHIL781
Approaches to Fiction
An analysis of some philosophic questions concerning the reading of fiction (Why do we feel emotions for Anna Karenina, when she does not exist?) and the educational function of fiction. Credit Level: G. Credit Hrs: 5.00

15PHIL782
Ethical Theory
Advanced course in ethical theory, including such topics as relativism, subjectivism, values, and the sources of normativity. Credit Level: G. Credit Hrs: 5.00

15PHIL783
Reasons for Action
A review of classic and contemporary works on practical reason, focusing on reasons for action. Credit Level: G. Credit Hrs: 5.00

15PHIL785
Scientific Theories
Focuses on the nature and structure of scientific theories, an issue central to the philosophy of science. The transition from the postivist syntactic to the post-positivist semantic conception of theories is explored paying special attention to the interpretation of the relationship between theory and real world. Credit Level: G. Credit Hrs: 5.00

15PHIL786
Plato's Later Dialogues
The theory of Forms in The Phaedo, The Republic, The Parmenides, and The Sophist. Credit Level: G. Credit Hrs: 5.00

15PHIL787
Philosophy of Science: Experiment
Critically explores the "experimental turn" in philosophy of science. Questions concern ing the structure and epistemology of experiment ation in science will be explored. Specific issues include the relationship between theory and experiment, conceptual foundations of experime ntal design, and the heuristic role of specific reasoning strategies employed in experimentation. Credit Level: G. Credit Hrs: 5.00

15PHIL788
History and Philosophy of Biology
An advanced course in the historical and conceptual foundations of biology. Problems including the structure of evolutionary theory, reduction of Mendelian to molecular genetics, role of chance in evolution, species concepts, foundations of evo-devo, and laws in biology are are approached by way of historical and contemporary cases from biology. Credit Level: G. Credit Hrs: 5.00

15PHIL789
History and Philosophy of Science
An advanced graduate section of 15-065-589. Survey of issues relating to the aims and methods of history of science/philosophy. Credit Level: G. Credit Hrs: 5.00

15PHIL790
Early 20th Century Philosophy
An examination of some of the views of representative early 20th century Anglo-American philosophers, such as F.J. Bradley, B. Russell, G.E. Moore, William James or others. Credit Level: G. Credit Hrs: 5.00

15PHIL791
20th Century Philosophy of Science: Scientific Explanation
An advanced course in philosophy of science, focusing on development in the theory of explanation, including statistical explanation. This is an advanced graduate section of 15-065-591. Credit Level: G. Credit Hrs: 5.00

15PHIL792
Philosophy of Science Since World War II
A critical survey of developments in philosophy of science since World War II, including positivism, postpositivism, and postmodernism. Credit Level: G. Credit Hrs: 5.00

15PHIL793
Philosophy of the Social Sciences
Critical survey of prominent philosophical traditions in the social sciences, focusing on the relation between the natural and the social sciences and the similarities and differences between Anglo-American and Continental philosophies. Will cover Durlcheim, Winch, Weber, Schutz, Garfinkel, Marx, and Huberman, among others. Credit Level: G. Credit Hrs: 5.00

15PHIL794
Philosophical Foundations of the Sociology of Knowledge
Explores a range of philosophical issues generated by the program of the sociology of knowledge for replacing philosophical with scientific
### Philosophy

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<td>Philosophical Foundations of the Sociology of Knowledge</td>
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**Course Descriptions:**

- **Aristotle’s Metaphysical Biology**: Study of the primarily biological treatises of Aristotle and associated passages from the Metaphysics. Credit Level: G. Credit Hrs: 5.00

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**H–University Honors course.**

**BoK (Breadth of Knowledge) Coding:**

- **DC**: Diversity & Culture
- **EC**: English composition
- **FA**: Fine Arts
- **HP**: Historical Perspectives
- **HU**: Humanities
- **LT**: Literature
- **NS**: Natural Sciences
- **QR**: Quantitative Reasoning
- **SE**: Social & Ethical Issues
- **SS**: Social Sciences
Philosophy

15PHIL875
Seminar: Epistemology
Level: G. Credit Hrs: 5.00

15PHIL890
Seminar: Mental Representation
This course will examine recent work in philosophy and psychology on the nature of conceptual representation. Credit Level: G. Credit Hrs: 5.00

15PHIL892
Conceptual Foundations of Population Genetics
Explores the conceptual foundations of evolutionary theory. Special attention is paid to the reasoning strategies involved in constructing and evaluating theoretical population genetics models. Specific issues include: model structure, individuation, confirmation, and interpretation. More general issues include the present status of the evolutionary synthesis in its historical context. Credit Level: G. Credit Hrs: 5.00

15PHIL897
Seminar: 20th Century Philosophy of Science
An advanced examination of 20th-century philosophy of science. Credit Level: G. Credit Hrs: 5.00

15PHIL961
Graduate Readings
Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL962
Graduate Readings
Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL963
Graduate Readings
Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL971
Dissertation Research
Cr. to be arranged. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL972
Dissertation Research
Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHIL973
Dissertation Research
Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

Physics

15PHYS103
College Physics
This course does not satisfy the engineering or pre-engineering requirement. Prereq: 15PHYS102. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00-5.00

15PHYS104
How Things Work: Roller Coasters to Rocket Ships
A practical introduction into the Physics and Science of everyday life. This course considers objects from our everyday environment and their principles of operation, histories, and relationships to one another. The emphasis of Physics 104 is on Newton's Laws, and how they are involved in roller coasters, submarines, and rocket ships! Formerly Introductory Physics I. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS105
How Things Work: GPS Satellites to Global Warming
A practical introduction into the physics and science of everyday life. This course considers objects from the every day environment and their principles of operation, histories, and relationships to one another. The emphasis is on thermodynamics, relativity and electricity and magnetism, and how they are involved in global warming, automobiles, air-conditioning and power systems. Formerly Introductory Physics II. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS110
In the Beginning
Examines in detail the first three minutes of the existence of the universe. The objective is to impart to students a reasonably clear idea of the probable sequence of physical events in the very early universe. Through the power of physical reasoning, one can build a logical, consistent, and compelling picture of the early universe using experimental observations made now, billions of years later. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

15PHYS111
College Physics Lab
A 2-1/2 hour laboratory each week to accompany college physics. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS112
College Physics Lab
A 2-1/2 hour laboratory each week to accompany college physics. The second offering in a three- part course sequence. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS113
College Physics Lab
A 2-1/2 hour laboratory each week to accompany college physics. The third offering in a three- part course sequence. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS120
Astronomy: The Solar System
The sky and its motions. Tides, eclipses, light, and telescopes. The history of Astronomy. Comparative planetology, comets, and other interplanetary debris. Formation and evolution of our solar system. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS121
Astronomy: Stars and Galaxies
The sun and solar activity. The structure and evolution of stars. Variable stars, star charts, and coordinate systems. Stellar death, supernova, black holes. The Milky Way, other galaxies, active galaxies, and

H=University Honors course.

Physics

15PHYS121
Astronomy: Stars and Galaxies
Cosmology. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS122
Astronomy: Life in the Universe
The scientific investigation of life in the universe. The chemical and biological evolution of life on earth. The search for life within our solar system. Planetary systems and habitable regions around other stars. The search for extraterrestrial signals of intelligent design. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS123
Astronomy: Earth and Moon
The study of earth vicinity solar system phenomena including eclipses, meteors, comets, and asteroids. These phenomena are explained studying the orbit and perturbations of the earth-moon system. The cycle of lunar and solar eclipses, and the influence of astronomy on calendars and time keeping. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS125
Astronomy Lab
Meets one morning or evening per week. Selected experiments in astronomy: use of telescopes, astrophotography, solar observations, computers in astronomy. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15PHYS126
Astronomy Lab
Meets one morning or evening per week. Selected experiments in astronomy: use of telescopes, astrophotography, solar observations, computers in astronomy. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15PHYS127
Astronomy Lab
Meets one morning or evening per week. Selected experiments in astronomy: use of telescopes, astrophotography, solar observations, computers in astronomy. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15PHYS132
Meteorology: The Physics of Weather and the Environment
Introduction to the atmosphere, pressure, temperature, precipitation, fluid flow, solar radiation, optical phenomena (rainbows, mirages, sunsets), storms, forecasting and climate. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS133
Physics of Sound and Music
A description of acoustical phenomena: the reception of sound (the ear), the environment of music (from acoustics), and the production of musical sounds (musical instruments). Transfer Module. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PHYS135
Our Elegant Universe
Topics of Modern Physics, such as a grand unified theory of everything, string theory, extra dimensions of space, the big bang with historical context, non-mathematical conceptual presentation. BoK: QR., NS. Credit Level: U. Credit Hrs: 3.00

15PHYS201
General Physics I

15PHYS201H
Honors General Physics I
Limited to Honors students. Material covered includes: 1 and 2-D motion, Newton's Laws, energy and momentum conservation, angular motion and momentum, and simple harmonic motion. Coreq: 15MATH251. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

15PHYS202
General Physics II

15PHYS202H
Honors General Physics II
Limited to Honors Students. Material covered includes electricity and magnetism. Coreq: 15MATH252. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

15PHYS203
General Physics III

15PHYS203H
Honors General Physics III

15PHYS204
General Physics for Physics Majors I
First quarter in Freshman sequence for Physics Majors. Material covered includes: 1 and 2-D motion, Newton's Laws, energy and momentum conservation, angular motion and momentum, and simple harmonic motion Coreq: 15MATH251, 15PHYS214. BoK: QR, NS. Credit Level: U. Credit Hrs: 4.00

15PHYS205
General Physics for Physics Majors II

15PHYS206
General Physics for Physics Majors III

15PHYS211
General Physics Laboratory I
A three-hour laboratory each week accompanying General Physics. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS211H
General Physics Laboratory I Honors
Limited to Honors students. A 3-hour laboratory each week to accompany Honors General Physics I Coreq: 15PHYS201H. Transfer Module. BoK: NS, QR. Credit Level: U. Credit Hrs: 1.00

15PHYS212
General Physics Laboratory II
A three-hour laboratory each week accompanying General Physics. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00

15PHYS212H
General Physics Laboratory II Honors
Limited to Honors students. A 3-hour laboratory each week to accompany Honors General Physics II Coreq: 15PHYS202H. Transfer Module. BoK: NA. Credit Level: U. Credit Hrs: 1.00
Experiments in Modern Physics I
A study of advanced undergraduate mechanics. Prereq.: Phys. 301. Coreq.: Math 342 or equiv. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS302
Mechanics
A study of advanced undergraduate mechanics. Prereq.: Phys. 301. Coreq.: Math 342 or equiv. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS304
Electricity and Magnetism
A study of advanced undergraduate electricity and magnetism. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS305
Electricity and Magnetism
A study of advanced undergraduate electricity and magnetism. Prereq.: Phys. 304; Coreq.: Math 342 or equiv. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS331
Thermodynamics and Statistical Physics
Thermodynamics and kinetic theory, with an introduction to statistical mechanics. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS332
Thermodynamics and Statistical Physics
Thermodynamics and kinetic theory, with an introduction to statistical mechanics. Prereq.: Phys. 331. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS341
Advanced Topics in Astronomy
Explores selected topics in astronomy with an in-depth examination of modern astronomical phenomena such as solar system astronomy and exploration, the birth and death of stars, black holes, and cosmology. Topics may vary from year to year. Can be retaken up to 3 times for 9 crs. Coreq.: 15PHYS203, 15PHYS206, 15PHYS353. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00-9.00

15PHYS351
Intermediate Physics I
A study of intermediate undergraduate mechanics, which includes both analytical methods and laboratory experiments. Prereq.: 15PHYS203, 15PHYS213. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00

15PHYS352
INTERMEDIATE PHYSICS II
A study of intermediate undergraduate electricity and magnetism, which includes both analytic methods and laboratory experiments. Prereq: 15PHYS351. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00

15PHYS353
INTERMEDIATE PHYSICS III
A study of intermediate undergraduate modern physics and quantum physics, which includes both analytical methods and laboratory experiments. Prereq: 15PHYS352. BoK: NS, QR. Credit Level: U. Credit Hrs: 5.00

15PHYS361
Experiments in Modern Physics I
Students choose from a variety of experiments in modern physics. Typically a student will do two or three experiments in a quarter. The choice of experiments can be tailored to match the student's interests. Prereq: 15PHYS353, 15PHYS276. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS362
Experiments in Modern Physics II
Students choose from a variety of experiments in modern physics. Typically a student will do two or three experiments in a quarter. The choice of experiments can be tailored to match the student's interests. Prereq: 15PHYS353, 15PHYS276. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00
15PHYS403  
Special Relativity  
A comprehensive introduction to Special Relativity Topics include: Lorentz transformation, paradoxes of relativity, experimental evidence for relativity, relativistic dynamics and electromagnetics. Prereq: 15PHYS301, 15PHYS302, 15PHYS304, 15PHYS305. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS410  
Computational Physics  
An introduction to computational physics. Topics include: root finding, numerical integration, numerical solution of ordinary and partial differential equations, the study of eigen value problems, Monte Carlo methods, data visualization and topics of current interest. Prereq: 15MATH273. Coreq: 15PHYS353. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

15PHYS499  
Capstone Project  
A one quarter course normally taken in the spring of the senior year. Required for physics majors. The student is required to complete an independent research or teaching project under faculty supervision and prepare a written report on the project and its results. Proposals are required and due early in the preceding winter quarter. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS501  
Special Problems  
Special readings or experiments under direction of individual staff members. Permission of Department Head required. Cr. arranged. Open also to Honors students. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PHYS502  
Special Problems  
Special readings or experiments under direction of individual staff members. Permission of department head required. Cr. arranged. Open also to Honors students. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PHYS503  
Special Problems  
Special readings or experiments under direction of individual staff members. Permission of department head required. Cr. arranged. Open also to Honors students. The third offering in a three-part course sequence. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 1.00-15.00

15PHYS507  
Introductory Quantum Mechanics  
Elements of quantum mechanics with applications to atomic physics, nuclear physics, and solid state physics. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

15PHYS508  
Introductory Quantum Mechanics  
Elements of quantum mechanics with applications to atomic physics, nuclear physics, and solid state physics. The second offering in a two-part course sequence. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

15PHYS509  
Introduction to Quantum Mechanics  
Elements of quantum mechanics with applications to atomic physics, nuclear physics, and solid state physics. The third offering in a three-part sequence. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

15PHYS511  
Advanced Laboratory I  
Modern and seminal classical physics experiments. Prereq: 15PHYS353. BoK: QR, NS. Credit Level: U. Credit Hrs: 3.00

15PHYS512  
Advanced Laboratory II  
Modern and seminal classical physics experiments. Prereq: 15PHYS301, 15PHYS302, 15PHYS304, 15PHYS305. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

15PHYS521  
Introduction to Astrophysics I  
Introduction to modern astrophysics, including stellar structure, the interstellar medium, galactic structure, extragalactic astronomy and cosmology. Prereq: 15PHYS353. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS522  
Introduction to Astrophysics II  
Continuation of 15-PHYS-521. Introduction to Astrophysics I Prereq: 15PHYS353. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS541  
Special Topics in Contemporary Physics I  
Topics, which vary from year to year, include astrophysics, space physics, general relativity plasma physics, medical physics, advanced optics, and string theory. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS542  
Special Topics in Contemporary Physics II  
Topics, which vary from year to year, include astrophysics, space physics, general relativity plasma physics, medical physics, advanced optics, and string theory. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS611  
Medical Imaging Without Ionizing Radiation  
The physics and instrumentation of diagnostic ultrasound, magnetic resonance imaging (MRI), functional MR and MR spectroscopy. Prereq: 15MATH533. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS612  
Advanced Topics in MRI  
Quantum mechanical aspects of NMR and methods by which gradient magnetic fields are used to encode NMR signals to produce a magnetic resonance image. Prereq: 15MATH533. Credit Level: G. Credit Hrs: 3.00

15PHYS622  
Introduction to Quantum Computing  
An introduction to the rapidly growing field of quantum computing. Taught by several faculty members and aimed at advanced undergraduates or beginning graduate students in Physics, Computer Science, Mathematics and Electrical Engineering. Cross-listed with ECES-622. Prereq: 15PHYS276. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS623  
Special Topics in Quantum Computing  
Introduces advanced topics in quantum computing such as quantum algorithms, noise, error-correction, and information theory. Taught by several faculty members and aimed at advanced undergraduates or beginning graduate students. Cross-listed with ECES 753. Prereq: 20ECES622. BoK: QR, NS. Credit Level: U, G. Credit Hrs: 3.00

15PHYS631  
Graduate Colloquium  
Required of all graduate students. Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS632  
Graduate Colloquium  
Required of all graduate students. Cr. to be arranged. Second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS633  
Graduate Colloquium  
Required of all graduate students. Cr. to be arranged. Third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00
Physics

15PHYS003
Graduate Colloquium
Required of all graduate students. Cr. to be arranged. Third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS004
Advanced Seminar
Research activities in the dept. First-year graduate students must register each qtr. Cr. arranged. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS005
Advanced Seminar
Research activities in the dept. First-year graduate students must register each quarter. Cr. arranged. Second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS006
Advanced Seminar
Research activities in the dept. First-year graduate students must register each quarter. Cr. arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PHYS007
Advanced Seminar (Graduate)
Sec. 1, Aeronomy. Sec. 2, High Energy. Sec. 3, Solid State. Cr. arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS008
Advanced Seminar (Graduate)
Sec. 1, Aeronomy. Sec. 2, High Energy. Sec. 3, solid state. Cr. arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS009
Advanced Seminar (Graduate)
Sec. 1, Aeronomy. Sec. 2, High Energy. Sec. 3, solid state. Cr. arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS707
Electrodynamics
Classical theory of electrodynamics and relativity. Credit Level: G. Credit Hrs: 4.00

15PHYS708
Electrodynamics
Classical theory of electrodynamics and relativity. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PHYS710
Quantum Mechanics
Wave and matrix mechanics, perturbation theory, scattering, and angular momentum. Credit Level: G. Credit Hrs: 4.00

15PHYS711
Quantum Mechanics
Wave and matrix mechanics, perturbation theory, scattering and angular momentum. The second offering in a three-part course sequence. Prereq.: Phys. 710. Credit Level: G. Credit Hrs: 4.00

15PHYS712
Quantum Mechanics
Wave and matrix mechanics, perturbation theory, scattering and angular momentum. The third offering in a three-part course sequence. Prereq.: Phys. 711. Credit Level: G. Credit Hrs: 4.00

15PHYS713
Statistical Mechanics
Kinetic theory and statistical mechanics. Credit Level: G. Credit Hrs: 4.00

15PHYS714
Statistical Mechanics
Kinetic theory and statistical mechanics. Credit Level: G. Credit Hrs: 4.00

Mathematical Physics

15PHYS721
Mathematical Physics
Mathematical methods; linear algebra, complex variables, orthogonal functions, differential equations. Credit Level: G. Credit Hrs: 4.00

15PHYS741
Dynamics
Lagrangian and Hamiltonian mechanics, small oscillations. Credit Level: G. Credit Hrs: 4.00

15PHYS751
Physics by Inquiry I
A course for science teachers that covers important introductory concepts in physics with depth and with an emphasis on development of reasoning skills necessary for scientific inquiry. Credit Level: G. Credit Hrs: 2.00-6.00

15PHYS752
Physics by Inquiry II
A course for science teachers that covers important introductory concepts in physics with depth and with an emphasis on development of reasoning skills necessary for scientific inquiry. The second offering in a three-way course sequence. Credit Level: G. Credit Hrs: 2.00-6.00

15PHYS753
Physics by Inquiry III
A course for science teachers that covers important introductory concepts in physics with depth and with an emphasis on development of reasoning skills necessary for scientific inquiry. Credit Level: G. Credit Hrs: 2.00-6.00

15PHYS754
Graduate Seminar in Physics Education
A graduate seminar covering the teaching of physics and research in physics education. Credit Level: G. Credit Hrs: 1.00-4.00

15PHYS801
Biocheminformatics
This course will discuss the chemistry, biophysics and statistics behind computational methods used to predict the structure and function of proteins and RNA molecules from sequence information. Applications of bioinformatic packages to biophysics problems and development of analysis tools will be emphasized. The thermodynamics and kinetics of folding transitions in biomolecules will be also discussed and illustrated using simplified chain representations. Credit Level: G. Credit Hrs: 3.00

15PHYS802
Molecular Modeling of Biological Systems
Focuses on the application of computer simulations to the study of biological systems. This course will discuss concepts in classical mechanics, thermodynamics and statistical mechanics and their application to Monte Carlo and molecular dynamics methods. The use of molecular tools will be emphasized. The thermodynamics and kinetics of folding transitions in biomolecules will be also discussed and illustrated using simplified chain representations. Credit Level: G. Credit Hrs: 3.00

15PHYS821
Astrophysics I
Review of modern astrophysics, including stellar structure, the interstellar medium, galactic structure, extragalactic astronomy and cosmology. Credit Level: G. Credit Hrs: 4.00

15PHYS822
Astrophysics II
Continuation of 15-PHYS-821. Astrophysics I Credit Level: G. Credit Hrs: 4.00

15PHYS841
Particle Physics
Prereq: 15PHYS712. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
Physics

15PHYS842
Particle Physics
4 gr. cr. Prereq: 15PHYS841. Credit Level: G. Credit Hrs: 4.00

15PHYS845
Solid State Physics
4 gr. cr. Prereq: 15PHYS712. Credit Level: G. Credit Hrs: 4.00

15PHYS846
Solid State Physics
4 gr. cr. Prereq: 15PHYS845. Credit Level: G. Credit Hrs: 4.00

15PHYS871
Advanced Problems
Readings or laboratory work in special topics under the direction of individual faculty members. Cr. to be arranged. Offered each quarter. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS872
Research for the Master's Degree
Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS910
Advanced Quantum Mechanics
The quantum theory of particles and fields. Credit Level: G. Credit Hrs: 4.00

15PHYS911
Advanced Quantum Mechanics
The quantum theory of particles and fields. Prereq.: Phys. 910. Credit Level: G. Credit Hrs: 4.00

15PHYS913
Field Theory
Quantum field theory, interactions, renormalization. Prereq: 15PHYS912. Credit Level: G. Credit Hrs: 4.00

15PHYS914
Field Theory
Quantum field theory, interactions, renormalization. The second offering in a three-part course sequence. Prereq.: Phys. 913. Prereq: 15PHYS913. Credit Level: G. Credit Hrs: 4.00

15PHYS915
Field Theory
Quantum field theory, interactions, renormalization. The third offering in a three-part course sequence. Prereq.: Phys. 914. Prereq: 15PHYS914. Credit Level: G. Credit Hrs: 4.00

15PHYS919
Special Topics in Theoretical Physics
Topics recently covered include the renormalization group, superconductivity, magnetism in solids, gauge theories. Credit Level: G. Credit Hrs: 4.00

15PHYS920
Special Topics in Theoretical Physics
Topics recently covered include the renormalization group, superconductivity, magnetism in solids, gauge theories. Hrs. to be arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PHYS921
Special Topics in Theoretical Physics
Topics recently covered include the renormalization group, superconductivity, magnetism in solids, gauge theories. Hrs. to be arranged. The third offering in a three-part course sequence. Prereq: 15PHYS920. Credit Level: G. Credit Hrs: 4.00

15PHYS925
Advanced Topics in Solid State Physics
Physics of plasmas, laser light scattering physics, plasmas in solids. Credit Level: G. Credit Hrs: 4.00

15PHYS926
Advanced Topics in Solid State Physics
Physics of plasmas, laser light scattering physics, plasmas in solids. Hrs. to be arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PHYS927
Advanced Topics in Solid State Physics
Physics of plasmas, laser light scattering physics, plasmas in solids. Hrs. to be arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00

15PHYS937
Advanced Topics in Astrophysics I
Advanced study of modern astrophysics, including stellar structure, the interstellar medium, galactic structure, extragalactic astronomy, and cosmology. Prereq: 15PHYS821, 15PHYS822. Credit Level: G. Credit Hrs: 4.00

15PHYS971
Research for the Doctorate
Cr. to be arranged. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15PHYS973
Readings and Research
Description not available. Credit Level: G. Credit Hrs: 1.00-15.00

Political Science

15POL110
American Politics
American political system, ideology, constitutional development; public opinion and voting behavior, pressure groups and political parties, civil rights and civil liberties. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL111
Introduction to American Politics II
The American political system, ideology, constitutional development; public opinion and voting behavior, pressure groups and political parties, civil rights and civil liberties. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL140
Political Theory
An examination of the major ideologies which have dominated modern politics. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL160
Comparative Politics
Fundamentals of comparative government institutions and political processes. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL180
International Relations
The basic concepts, frameworks, and policies associated with the study of International Relations. Historical examples and contemporary issues and problems. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL210
Introduction to Political Behavior
Study of citizen politics in Western democracies, political parties, interest groups, socialization and participation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL211
Election in America
Analysis of American voting behavior and the impact of elections on democratic politics. BoK: SS. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Political Science

15POL212  
**Political Parties**  
Evolution and structure of political parties in the United States; the twoparty system; election practices and problems. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL216  
**State and Local Government.**  
An analysis of structure, powers and functions of state government, and the problems of relations among state and local government units. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL217  
**The Government and Politics of Ohio.**  
Analysis of the structure, powers, and functions of state and local government in Ohio; intergovernmental relations in Ohio; electoral and party politics in Ohio. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL219  
**The American Presidency.**  
The office and powers of the president; executive-legislative relations; presidential leadership. Prereq: 15POL110, 15POL111. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL220  
**The American Congress**  
The role, organization, and behavior of Congress with reference to problems of representation and policy formulation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL221  
**The American Supreme Court**  
The composition, organization, jurisdiction and decision-making procedures of the Court. Its policy outputs and their impact. Offered in alternate years. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL222  
**Judicial Process**  
Structure and functions of American judicial systems; participants in judicial process; process of litigation; influences on judicial decisions; political and governmental consequences of judicial decisions. Offered in alternate years. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL231  
**Government and Public Policy.**  
Formation, implementation, and content of selected policies of federal, state, and local governments in the United States. Offered in alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL232  
**Community Disaster Reconstruction**  
Policies and techniques for restoring communities affected by disaster. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL235  
**American Health Policy**  
The course goals are to achieve basic understanding of 1) the history of health care delivery in the U.S., 2) the relationship of public and private sector in organizing health care delivery, 3) the role of government in developing health care policy, and 4) comparison to other industrialized countries' health care systems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL240  
**Development of Political Thought I**  
Major schools and theories from Plato to J.S. Mill. Political philosophy's present status and problems. Prereq.: 15-085-140. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL241  
**Development of Political Thought II**  
Major schools and theories from Plato to J.S. Mill. Political philosophy's present status and problems. The second offering in a two-part course sequence. Prereq.: 15-085-140. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Political Science

15POL245  
**American Political Thought**  
The great ideas and issues which have shaped American political thought. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL248  
**Mass Political Movements**  
The etiology of deviant political movements with special emphasis on theories of revolution and totalitarianism. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL253  
**Political Inquiry I: Approaches**  
Major approaches to political science; history of the discipline, issues and paradigms. Prereq: 15POL110, 15POL111, 15POL140, 15POL160, 15POL180. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL254  
**Political Inquiry II: Methods**  
Assumptions, terminology, methods and techniques of quantitative research and data analysis in Political Science. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL269  
**Politics in Developing Countries**  
Politics in Developing Countries BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL274  
**Government and Politics of CIS and Eastern Europe**  
3 ug. cr. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15POL280  
**Approaches to International Politics**  
Foreign policies and patterns in world politics. Theories of international relations. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL281  
**Conduct of U.S. Foreign Relations.**  
Policy process; roles of the executive and legislative branches of government. Administrative analysis of national policy machinery, diplomacy and foreign service functions. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL282  
**NATO and Alliances in International Politics**  
Study of NATO and alliance theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL283  
**International Cooperation: Theory**  
Examines international cooperation theory, and the issues of why nations cooperate, the forms of cooperation, and how it is attained and sustained. Covers topics such as cooperation theory, regimes, institutions, norms, bargaining, and the politics of cooperation. Prereq: 15POL180. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL284  
**US National Security Policy**  
Assessment of US National Security, issues of foreign policy, Homeland Security and the War on Terror. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL285  
**Politics of Terrorism**  
The problems of terrorism in a global perspective. Prereq: 15POL180, 15POL160. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Political Science

15POL286

Security Policies of Asian States
Examines the defense and security policies of Asian states, internal and external threats to their national security, their political and military options against these threats, and their experience with war and conflict. Prereq: 15POL180. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL287

Politics of Human Rights
Concepts and policies dealing with promotion and protection of human rights world-wide. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15POL288

International Law
The conceptual sources, history, scope, and current effect of international law as applied to interstate relations. Offered alternate years. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15POL289

International Organization
Structure and functions of the United Nations and other major international organizations. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL293

Political Intelligence/Counterintelligence
A study of the role of intelligence and counterintelligence in a democratic society: the tension between openness and secrecy. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15POL294

Honors: Special Topics
Research in one of the undergraduate fields of the department, with consent of the instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

15POL295

Honors: Special Topics
Research in one of the undergraduate fields of the department, with consent of instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

15POL296

Honors: Special Topics
Research in one of the undergraduate fields of the department, with consent of the instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

15POL310

Public Opinion
Formation, distribution, and properties of public opinion and its linkage to the governmental process in America. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL311

Political Psychology
Psychological aspects of politics, political attitudes, and public opinion. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL313

Political Participation
Analyze causes and consequences of citizen political participation in modern democracy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL314

Women and Politics
Political roots of the feminist movement; women's role in contemporary political life. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15POL315

E lecting the President
3 ug. cr. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL316

Polls, Elections, and Politics
Role of public opinion and election polls in American politics; how polls are conducted; mass media coverage, analysis, and interpretation of poll results; positive and negative influence of polls in democracies. BoK: SS., QR. Credit Level: U. Credit Hrs: 3.00

15POL318

Black Leadership in 20th Century
Introduction to urban political structures and policy processes; political behavior in the urban area. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL319

Religion and Politics in America
Study of the role of religion and religious movements in American politics, including the religious right and creationism in modern America; issues include abortion, prayer in public schools, and separation of church and state. Prereq: 15POL110, 15POL111. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL321

Constitutional Law: Federal System
Principles of American Constitution and their development by judicial interpretation. Conflicts over national judicial, legislative and executive power and state-federal relations. Prereq: 15POL221. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL322

Constitutional Law: Civil Rights.
Due process and Constitutional requirements in criminal procedure. Equal protection of the law. Special emphasis on the 5th and 14th Amendments. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15POL323

Constitutional Law: Civil Liberties.
First Amendment freedoms of speech, press, assembly and religion. Prereq: 15POL322. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15POL331

Environmental Policy and Administration
Concepts, issues, policies, and legal structures related to environmental protection and energy. Offered alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL332

Regulatory Policy and Administration.
Politics, issues, processes in government regulation of the economy. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL333

The Future of the Welfare State
Social welfare policies, implementation, success, and failure. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL334

Emergency Management Policy and Administration.
Review and analysis of federal, state, and local crisis and emergency management policy and administration. BoK: SS. Credit Level: U. Credit Hrs: 3.00-4.00

15POL340

Progressivism in Political Theory
Study of progressivism and how it appears in past and present political theory; conflicts created by progressive political theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL341

Marx and the Marxist Tradition
Marxism, Leninism, Salinism; application of Communist theory; revisionism and dogmatism in Communist theory and practice. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL342

Contemporary Political Thought.
3 ug. cr. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Political Science

15POL343
Citizenship and Terrorism in Modern Society
Explores the political theory supporting modern citizenship and terrorism. Prereq: 15POL140. BoK: SS. Credit Level: U. Credit Hrs: 3.00-4.00

15POL344
The Internet and Democratic Politics
How will computer mediated communication (CMC) via the internet effect democratic politics? Will CMC increase the effectiveness of ordinary citizens, strengthen the power of politics elites, or simply reinforce the status quo? Prereq: 15POL140. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL345
Political Theory of the U.S. Constitution.
This course will examine the fundamental political ideas which influenced the creation of the U.S. Constitution. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL346
State Theory
Overview and analysis of major 19th and 20th-century state theories and their origins. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL347
Political Theory and the Administrative State
The way that any given political theory conceptualizes the state, its purposes and legitimacy, significantly influences the way that administration occurs within this state. This course will consider the major state theories and show how each translates into a specific vision of administration. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL348
Politics of Protest
Forms and strategy of political protest; political violence, confrontation; militancy, civil disobedience. Prereq.: 200 Level Theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL349
The Politics of Protest II
Forms and strategy of political protest; political violence, confrontation; militancy, civil disobedience. The second offering in a two-part course sequence. Prereq.: 200 Level Theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL352
Introduction to Statistics for Political Science
4 ug. cr. BoK: SS., QR. Credit Level: U. Credit Hrs: 4.00

15POL356
Models of Political Choice and Conflict
Survey of formal methods of political analysis: game theory, social choice and deductive modeling. Analysis of collective choice, voting rules, paradoxes, impossibility theorems, evaluation of equilibria, strategic manipulation, agenda, control, vote trading and other political phenomena. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL360
Approaches to Comparative Politics
Survey of concepts, approaches, & research strategies in comparative politics. Prereq: 15POL160. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL364
Newly Industrializing Countries of Asia
Analysis of politics of industrialization and modernization in NICs in East Asia. Includes alternative strategies for political and economic development in Taiwan, Hong Kong, China, and South Korea. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL365
Women and Politics in the Third World
A survey of women and politics in the third world. Prereq: 15POL160. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

Political Science

15POL367
Civil War and Political Violence
Explores ethnic conflict and civil wars, including genocide, terrorism, and child soldiers in the Middle East, Africa, South Asia, and Europe. Prereq: 15POL180. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL368
Nationalism and Identity Politics
Various theories and approaches to nationalism and other forms of identity politics. They will apply these theories through international and comparative case studies, and policy analyses. Prereq: 15POL160. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL370
Politics of Islam
Islamic political theories; Islam as an historic civilization and as a modern state system; fundamentalism; Islam and the West. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL371
Middle East Conflicts I
3 ug. cr. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL372
Middle East Conflicts II
3 ug. cr. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL373
Problems and Prospects of Democratic Citizenship
This course analyzes the problems democratic citizens face, and assesses strategies proposed to deal with those problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL376
Politics of the European Union
History, institutions, policies, and theories the European Union. Prereq: 15POL160. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL380
Regional Politics in Asia
Examines regional politics in Asia, and the role of regional organizations in coordinating national policies on political, economic, and social issues. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

15POL381
U.S. Foreign Policy
Policy aspects of contemporary U.S. foreign relations with modernized states, Europe and the Soviet Union. Offered alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL382
U.S. Foreign Policy and Developing Countries
Contemporary U.S. foreign relations with the less developed states, Latin America and Asia. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL383
Conflict in International Relations
Concepts and theories associated with the causes, management, and resolution of international conflict. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL384
Examines decision making theories and the phenomenon of crisis. Students engage in decision- making simulation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL385
International Security Policy
Analysis of international security issues, e.g., regional conflicts. Nuclear and conventional arms races and efforts to contain and reduce them. Offered alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00
### Political Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Corequisites</th>
<th>Co-requisites</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>15POL386</td>
<td>International Relations in East Asia</td>
<td>Pattern of international politics in East Asia; emphasis on post-1945 period. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL387</td>
<td>Politics of Vietnam War</td>
<td>An exploration of the way in which cold war theoretical perspectives and domestic policies come together to involve America in its longest and most controversial war. Theories of containment and balance of power are viewed in terms of the political decision making and the military contest. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL388</td>
<td>International Cooperation: Asia</td>
<td>Examines international cooperation among Asian states on strategic, political, economic, social, and science and technology issues, the breadth and depth of bilateral and multilateral cooperation, and regional organizations in Asia. Prereq: 15POL180. BoK: SS. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL389</td>
<td>Politics of International Economic Affairs</td>
<td>Political aspects of international economic relations among developed countries and between developed and Third World nations. Offered in alternate years. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL395H</td>
<td>Globalization and Its Discontents</td>
<td>This course provides an interdisciplinary examination of the economic, social, and political consequences of globalization in the contemporary world. Topics will cover the implications of globalization both for national policy and international relations. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL396H</td>
<td>Creation vs Evolution: Science, Religion, and Politics in America Honors</td>
<td>This honors course examines the creation/evolution controversy from Darwin's Origin of Species to the Scopes &quot;Trial of the Century&quot; to the creationist movement in Modern American society. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL397H</td>
<td>Abolition of 21st Century Slavery</td>
<td>An interdisciplinary human rights seminar covering US and international law against trafficking, the comparative economics of forced labor, politics of the freedom movement, the moral/religious crusade against prostitution, and historical evolution of the campaign. Service and experiential learning with Cincinnati-based Freedom Center Museum and Restavek Foundation (Haitian child slaves) , YWCA Rescue Project, and US and international interest groups/NGO's. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL398</td>
<td>Politics in a New Europe</td>
<td>This course examines the major events and issues in contemporary Europe. Honors special topic. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL399H</td>
<td>Education and Power</td>
<td>The politics of education challenges students to reconsider concepts including power and equity. Students will: 1) read and debate research on education and power in political science and other social sciences 2) better understand policies such as multilingual education and affirmative action through international comparisons, and 3) interact with local educational institutions. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00</td>
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### Political Science Honors Courses

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
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<th>Prerequisites</th>
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<th>Notes</th>
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<tbody>
<tr>
<td>15POL401</td>
<td>Political Science Special Topics: Political Intelligence.</td>
<td>University Honors Program course. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL405</td>
<td>Internship Seminar.</td>
<td>Examines the interrelationship between various governmental actors, the influence of organized interest groups, electoral process, and the formulation and implementation of public policy. Internship positions may be paying or non-paying with elected officials; federal, state, or local agencies; interest groups; political party organizations. Students are expected to work a minimum of 12 hours a week and prepare short papers as well as a major research paper. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL406</td>
<td>Internship Practicum.</td>
<td>This course builds on the internships experience students received in Political Science 405. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL410</td>
<td>Individual Work: American Politics</td>
<td>Open only to Political Science and International Affairs majors who complete either directed readings or relevant practical work. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>15POL411</td>
<td>Individual Work Amer.</td>
<td>INDIV WORK AMER Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>15POL412</td>
<td>Public Opinion</td>
<td>PUBLIC OPINION BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL430</td>
<td>Practicum in Homeland Security and Emergency Management.</td>
<td>Field experience working with security practitioners in the private or public sectors. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00</td>
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<tr>
<td>15POL440</td>
<td>Individual Work: Political Theory</td>
<td>Open only to political science and international affairs majors who complete either directed readings or relevant practical work. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00</td>
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<tr>
<td>15POL460</td>
<td>Individual Work: Comparative Politics</td>
<td>Open only to political science and international affairs majors who complete either directed readings or relevant practical work. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>15POL480</td>
<td>Individual Work: International Relations</td>
<td>Open only to political science and international affairs majors who complete either directed readings or relevant practical work. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>15POL490</td>
<td>Senior Project</td>
<td>Required for both the political science and international affairs majors. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15POL491</td>
<td>Individual Work</td>
<td>Description not available from department. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>15POL495</td>
<td>Senior Thesis -- Honors</td>
<td>Description not available. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00</td>
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H=University Honors course.
Political Science

15POL496
Senior Thesis -- Honors
n Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15POL499
Honors: Individual Study
Description not available. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

15POL510
American Public Opinion
Formation, distribution, and properties of public opinion and its linkage to the governmental process in America. BoK: SS., HU. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL511
Elections in America
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL512
Political Parties
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL513
Campaign Management and Elections
Introduces students to the concepts of campaign strategy, and analysis of election results. Involvement in actual political campaigns is encouraged but not required. Graduate students will conduct an empirical analysis of one or more elections. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL514
Communication and Presidential Campaigns
An examination and analysis of the communication strategies and techniques used by modern (1960 and beyond) presidential candidates. BoK: HP., SS. Credit Level: U, G. Credit Hrs: 3.00

15POL515
The Rhetoric of Presidential Debates
Case studies of contemporary persuasive campaigns by individuals and/or organizations. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15POL516
Polls, Elections, and Politics
Role of public opinion and election polls in American politics; how polls are conducted; mass media coverage, analysis, and interpretation of poll results; positive and negative influence of polls in democracies. Prereq: 15POL110, 15POL111, 15POL140, 15POL160, 15POL180. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL517
Media and United States Politics
The role of the media in American politics, including American exposure to different media; the place of the media in electoral politics, and the media's impact on American government. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL518
The Rhetorical Presidency
An examination and analysis of the rhetorical genres of the contemporary Presidency. BoK: HU., SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL519
American Presidency
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL520
American Congress
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

Political Science

15POL521
American Supreme Court
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL522
Judicial Process
n BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL523
Women and Politics
Political roots of the feminist movement; women's role in contemporary political life. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL524
Women and Campaign Communication
An examination and analysis of the campaign communication strategies used by and for women who have sought or who are seeking elective office in the United States. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15POL525
Domestic Sources of American Foreign Policy
An examination of the influence of the president, executive departments, Congress, the intelligence community elites, and public opinion on American foreign policy. BoK: SE., SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL526
Public Administration
Introduction to administrative theory and practice as applied to public administration. Prereq: 15POL110, 15POL111. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL527
Religion, Science, and Politics
Study of the role of religion and religious movements in American politics, including the religious right and creationism in modern America; issues include abortion, prayer in public schools, and separation of church and state. Prereq: 15POL110, 15POL111, 15POL140, 15POL160, 15POL180. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL531
Government and Public Policy
Formation, implementation, and content of selected policies of federal, state, and local governments in the United States. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL532
Community Development: Theory and Practice
A seminar using common readings and group work exploring theory and practice in community and economic development. Students will learn about frameworks for examining community development policies and projects to include such considerations as public participation, equity design, the role of community organizations, and government. The class will involve lectures, discussion, field trips, and a group project(s) that will be determined by one or more actual developments in Cincinnati in which students will be involved in an interdisciplinary study in planning, architecture, and the like analysis of a real project(s) at the neighborhood, city, or regional level. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL534
Emergency Management Policy
Review and analysis of federal, state, and local crisis and emergency management policy and administration. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL535
American Health Policy
Course goals are to achieve basic understanding of 1) the history of health care delivery in the U.S., 2) the relationship of public and private sector in organizing health care delivery, 3) the role of government in developing health care policy, and 4) comparison to other industrialized

H=University Honors course.
Political Science

15POL535  
American Health Policy  
countries' health care systems. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL536  
Security and Intergovernmental Relations  
Describes the complex problems of managing and coordinating governments within the American Federal System; focuses upon the new security problems posed by homeland security. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL540  
Progressivism in Political Theory  
Study of progressivism and how it appears in past and present political theory; conflicts created by progressive political theory. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL541  
Development of Political Thought II  
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL543  
Citizenship and Terrorism  
Discusses the complex problems terrorism creates for citizenship. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL545  
American Political Thought  
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL546  
State Theory  
Overview and analysis of major 19th and 20th century state theories and their origin. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL547  
Politics and Literature  
Through literature and film this course will explore political commentary. Each quarter will focus on a particular topic (e.g. political satire, Utopias, political novels, Nobel laureates in literature) with a selection of books, stories, poetry, films, and/or plays. Class will feature assigned and chosen readings, discussions, class presentations, and papers. BoK: SS, LT. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL548  
Mass Political Movements  
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL552  
SPSS  
n BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-4.00

15POL553  
Intro to Political Science  
Assumptions, terminology, methods, and techniques of quantitative research and data analysis in Political Science. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15POL554  
Intro to Political Analysis  
Major approaches to political science; history of the discipline, issues and paradigms. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL555  
Introduction to Survey Research  
Principles, methods, and techniques for designing, conducting, and analyzing surveys; sampling procedures; questionnaire construction; data collection, processing and analysis; ethics of polls. Prereq: 15POL253, 15POL254. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

Political Science

15POL557  
Proseminar: Survey Research  
Methodological aspects of survey design and analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL559  
Practicum in Survey Research  
Application of survey methods: sampling, questionnaire design, data collection, and analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL560  
Approaches to Comparative Politics  
Survey of concepts, approaches, and research strategies in comparative politics. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL561  
Government and Politics of Japan  
Political traditions, institutions, processes and major political issues. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL562  
Government and Politics of Korea  
Political traditions, institutions, processes and major political issues. Prereq: 15POL160. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL563  
Government and Politics of China  
Political traditions, institutions, processes, and major political issues. Prereq: 15POL160. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL564  
Politics in South Asia  
Survey of the traditions, institutions and political issues found in the main states of South Asia. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL565  
Government and Politics of Latin America  
Survey of selected Latin American countries that examines institutions and processes, political culture, and political behavior. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL566  
Government and Politics of Canada  
Development of the Canadian parliamentary system, federalism, parties and elections, biculturalism, and relations with the U.S. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL567  
Civil War and Political Violence  
Explores ethnic and civil wars, including genocide, terrorism, and child soldiers in the Middle East, Africa, South Asia, and Europe. Prereq: 15POL180. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL568  
Nationalism and Identity Politics  
Various theories and approaches to nationalism and other forms of identity politics. These theories will be applied through international and comparative case studies, and policy analysis. Prereq: 15POL160. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL569  
Politics of Developing Countries  
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL570  
Comparative Political Behavior  
This course summarizes citizens involvement in and opinions about government in advanced industrial societies. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

H=University Honors course.
15POL571 Government and Politics of Middle East I
Introduction to the government and politics of the Middle East. Includes discussions of Islam, revolution, and terrorism. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL572 Government and Politics of Middle East II
The Arab-Israeli conflict in detail; intra-Arab and inter-Arab political relations as well as Israeli government and policy responses to violence. Prereq: 15POL271. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL574 Government and Politics of Russia
Introduction to the politics and government of the Russian Federation through examination of the geopolitical, cultural, and historical foundations that brought it into being as well as the constitutional, institutional, political, economic, and foreign policy realities that have been evolving since its inception. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL575 Government and Politics of East and Central Europe
An examination of the political currents influencing the development of former Soviet bloc states in Eastern and central Europe. Includes themes of continuity and change from the pre-Soviet period to the present, and the current relationships of these to Russia. Prereq: 15POL160. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL576 Politics of the European Union
History, institutions, policies, and theories of the European Union. Prereq: 15POL160. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL577 Government and Politics of Europe I
A survey of key developments in European politics. Prereq: 15POL160. BoK: HU, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL578 Government and Politics of Europe II
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL579 Women and Politics in the Third World
A survey of women and politics in the third world. Prereq: 15POL160. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL580 Approaches to International Politics
Foreign policies and patterns in world politics; theories of international relations. Prereq: 15POL180. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL581 US Foreign Policy: Institutions and Processes
Policy process; roles of the executive and legislative branches of government; administrative analysis of national policy machinery, diplomacy and foreign service functions. Prereq: 15POL180. BoK: SS, DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL582 Alliances and Alignment in International Relations
Study of NATO and alliance theory BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL583 International Cooperation
Examines international cooperation theory and the issues of why nations cooperate, the forms of cooperation, and how it is attained and sustained. Covers topics such as cooperation theory, regimes, institutions, norms, bargaining, and the politics of cooperation. Prereq:
Political Science

15POL611 Political Psychology
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL612 Political Socialization
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL613 Political Participation
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL614 Women and Politics
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL615 Electing the President
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL617 The Mass Media and United States Politics
This course covers the role of the media in American Politics, including American exposure to different media. The place of the media in electoral politics, and the media's impact on American Government. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL618 Urban Politics
URBAN POLITICS BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL621 Constitutional Law: Federal System
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL622 Constitutional Law: Civil Rights
4 ug. or gr. cr. Prerequisite: 15POL621. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL623 Constitutional Law: Civil Liberties
4 ug. or gr. cr. Prerequisite: 15POL622. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL631 Environmental Policy and Administration
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL632 Regulatory Policy and Administration
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL633 Welfare State
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL634 Emergency Management Policy and Administration
Review and analysis of federal, state, and local crisis and emergency management policy and administration. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL640 Progressivism in Political Theory
Study of progressivism and how it appears in past and present political theory; conflicts created by progressive political theory. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL641 Marx and Marxist Tradition
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

Political Science

15POL642 Contemporary Political Thought
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL643 Citizenship and Terrorism in Modern Society
Explores the political theory supporting modern citizenship and terrorism. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15POL644 The Internet and Democratic Politics
How will computer mediated communication (CMC) via the internet affect democratic politics? Will CMC increase the effectiveness of ordinary citizens, strengthen the power of political elites, or simply reinforce the status quo? Prerequisite: 15POL650. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15POL645 Political Theory of the Constitution
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL646 State Theory
Overview and analysis of major 19th and 20th-century state theories and their origins. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL647 Political Theory and Administrative State
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL648 Politics of Protest
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL649 Politics of Protest II
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL652 Statistics for Political Science
4 ug. or gr. cr. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL656 Models of Political Choice and Conflict
Survey of formal methods of political analysis: game theory, social choice and deductive modeling. Analysis of collective choice, voting rules, paradoxes, impossibility theorems, evaluation of equilibria, strategic manipulation, agenda control, vote trading and other political phenomena. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL660 Approaches to Comparative Politics
Survey of concepts, approaches, and research strategies in comparative politics. Prerequisite: 15POL610. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL664 Newly Industrialized Countries of Asia
This is a four credit version of 364 intended primarily for graduate students. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL665 Women and Politics in Third World
A survey of women and politics in the third world. Prerequisite: 15POL610. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15POL667 Civil War and Political Violence
Explores ethnic conflict and civil war, including genocide, terrorism, and child soldiers in the Middle East, Africa, South Asia, and Europe. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

H=University Honors course.
The Legislative Process
Advanced study of legislatures. Study of U.S. Congress, U.S. state legislatures and legislatures in other countries. Institutional, historical, comparative and formal theories of the behavior of legislatures and legislators. Mass, elite and interest group representation in legislatures. Credit Level: G. Credit Hrs: 4.00

Proseminar: American National Government
The basic literature of the field; research approaches and problems. Credit Level: G. Credit Hrs: 4.00

Notes:
H=University Honors course.
15POL711  Pro-seminar: American Political Behavior  
The basic literature of the field; research approaches and problems.  
Prereq: 15POL610, 15POL626. Credit Level: G. Credit Hrs: 4.00

15POL715  Pro-seminar in Public Opinion  
Description not available. Credit Level: G. Credit Hrs: 4.00

15POL720  Proseminar: Public Policy Analysis and Evaluation  
Methods, techniques of public policy analysis, evaluation of selected cases. Prereq: 15POL652. Credit Level: G. Credit Hrs: 4.00

15POL725  Administrative Law  
Procedural requirements resting on administrative agencies: notice and rearing; rulemaking; adjudication. Case approach. Credit Level: G. Credit Hrs: 4.00

15POL730  Practicum in Homeland Security and Emergency Management  
Field experience working with security practitioners in the private or public sectors. Credit Level: G. Credit Hrs: 1.00-5.00

15POL737  Intergovernmental Relations  
Covers structure and elements of American Federal System plus policy and administration within it. Credit Level: G. Credit Hrs: 4.00

15POL740  Pro-seminar: Political Theory  
An introduction to the study of political philosophy through an examination of selected texts from Plato to J.S. Mill. Credit Level: G. Credit Hrs: 4.00

15POL744  Proseminar: Democratic Theory  
This course will be divided into three sections. The first section will present classical treatments of democracy in Plato, Aristotle, and Tacitus. The second will deal with modern democratic thought in such theorists as Machiavelli, Locke, Rousseau, Madison, Tocqueville and Dewey. The third will deal with contemporary normative and empirical analysis of problems in democratic theory. Credit Level: G. Credit Hrs: 4.00

15POL745  Pro-seminar in American Political Theory  
Selected topics in the history of American Political Theory. Credit Level: G. Credit Hrs: 4.00

15POL750  Proseminar: Research Design  
Principles of design, measurement, and methods of data collection. Prereq: 15POL652. Credit Level: G. Credit Hrs: 4.00

15POL751  Proseminar: Survey Research  
Methodological aspects of survey design and analysis. Credit Level: G. Credit Hrs: 4.00

15POL752  Multivariate Statistical Analysis  
Selected topics on the application of multivariate statistics to political research, including the general linear model, analysis of variance and co-variance, multiple regression, causal modeling, factor analysis, canonical correlation, discriminant analysis, and others. Prereq: 15POL652. Credit Level: G. Credit Hrs: 4.00

15POL753  Multivariate Statistical Analysis II  
Selected topics on the application of multivariate statistics to political research, including the general linear model, analysis of variance and co-variance, multiple regression, causal modeling, factor analysis, canonical correlation, discriminant analysis, and others. Prereq:
Political Science

15POL783
Pro-seminar: Int. Pol. Ec.
Description not available. Credit Level: G. Credit Hrs: 4.00

15POL784
Proseminar: International Security Policy
Proseminar on ethnic conflict and Civil Wars. Explores topics including international security, terrorism, genocide, and child soldiers in the Middle East, Africa, South Asia, and Europe. Credit Level: G. Credit Hrs: 4.00

15POL785
Core Reading In International Relations
For students preparing for the Doctoral Comprehensive Examination in International Relations. The readings are based on lists compiled and distributed by the I.R. faculty. Students should consult with their committee chair. Credit Level: G. Credit Hrs: 4.00

15POL810
Research Seminar: American Politics
Description not available. Prereq: 15POL710. Credit Level: G. Credit Hrs: 4.00

15POL811
Research Seminar in American Politics
Students develop research projects based on prior work in 15POL710 or 711 Prereq: 15POL710, 15POL711. Credit Level: G. Credit Hrs: 4.00

15POL812
Seminar: American National Government
Description not available. Credit Level: G. Credit Hrs: 4.00

15POL813
Seminar in American Political Behavior
Description not available. Prereq: 20CEE680. Credit Level: G. Credit Hrs: 4.00

15POL819
Advanced Individual Work: American Politics
Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15POL825
Practicum in Public Aim
Description not available. Credit Level: G. Credit Hrs: 3.00

15POL826
Organization and Society
Critical theoretical examination of concepts of bureaucracy, political theory, and economics in the context of public organizations. Prereq: 15POL726. Credit Level: G. Credit Hrs: 4.00

15POL840
Research Seminar: Political Theory
Prereq.: 15-085-740. Prereq: 15POL740. Credit Level: G. Credit Hrs: 4.00

15POL849
Individual Work in Political Theory
To be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

15POL851
Practicum in Survey Research
Application of survey methods: Sampling, questionnaire design, data collection and analysis. Credit Level: G. Credit Hrs: 4.00

15POL859
Individual Work in Methodology
Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

15POL860
Seminar: Comparative Politics
Research on selected topics. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
### Portuguese Independent Study

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Type</th>
<th>Level</th>
<th>Credits</th>
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<tbody>
<tr>
<td>15PORT114</td>
<td>Extended Basic Portuguese 4</td>
<td>Individual Study</td>
<td>U, G</td>
<td>1.00-15.00</td>
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<td></td>
<td>Basic Portuguese language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&amp;S language requirement. Prereq: 15PORT113. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15PORT115</td>
<td>Extended Basic Portuguese 5</td>
<td>Individual Study</td>
<td>U, G</td>
<td>3.00</td>
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<td></td>
<td>Basic Portuguese language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&amp;S language requirement. Prereq: 15PORT114. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15PORT116</td>
<td>Extended Basic Portuguese 6</td>
<td>Individual Study</td>
<td>U, G</td>
<td>3.00</td>
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<td>Basic Portuguese language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&amp;S language requirement. Prereq: 15PORT115. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15PORT515</td>
<td>Study Tour in Brazil</td>
<td>Individual Study</td>
<td>U, G</td>
<td>3.00</td>
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<td>Study tour to Rio de Janeiro and Belo Horizonte. Follows introduction to Brazil (15PORT332). Students will complete independent projects based on tour. BoK: DC, HU. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>15PORT550</td>
<td>Portuguese Study Abroad</td>
<td>Individual Study</td>
<td>U, G</td>
<td>3.00</td>
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<td>For students participating in an established exchange program in the Portuguese-speaking world. Permission of Department required. Perm of Department. BoK: DC. Credit Level: U, G. Credit Hrs: 9.00-18.00</td>
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<td>15PORT581</td>
<td>Elementary Portuguese Language</td>
<td>Individual Study</td>
<td>U</td>
<td>3.00</td>
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<td>Basic Portuguese language, reading and speaking for graduate credit. BoK: DC. Credit Level: G, U. Credit Hrs: 3.00</td>
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<td>15PORT582</td>
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<td>Individual Study</td>
<td>U</td>
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<td>Basic Portuguese language, reading, writing, speaking for graduate credit BoK: DC. Credit Level: G, U. Credit Hrs: 3.00</td>
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<td>Basic Portuguese languages, reading, writing and speaking for graduate credit Prereq: 15PORT585. BoK: DC. Credit Level: G, U. Credit Hrs: 3.00</td>
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<td>Individual Study</td>
<td>U, G</td>
<td>1.00-15.00</td>
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<tr>
<td>15PORT592</td>
<td>Portuguese Independent Study</td>
<td>Individual Study</td>
<td>U, G</td>
<td>3.00</td>
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<td>Independent study in Portuguese language for Master's and Doctoral students. Prereq: 15PORT591. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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</tbody>
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H=University Honors course.
Psychology
15PSYC206
Adolescent Development
Examines biological, cognitive, cultural, environmental and social influences on development in adolescents. Current theories, methodologies, and research findings and applications will be discussed. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC207
Adult Development
Examines biological, cognitive, cultural, environmental and social influences on development in adulthood. Current theories, methodologies, and research findings and applications will be discussed. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC208
Aging
Comprehensive overview of the psychological, social & physical aspects of aging, including related research; psychological & physical disorders of late adulthood & their treatment. Strategies for successful & healthy aging are discussed. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC210
Human Sexuality
PSYCHOLOGICAL, BIOLOGICAL AND SOCIAL RESEARCH ON ADULT HUMAN SEXUAL FUNCTIONING AND RELATIONSHIPS. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

15PSYC213
Positive Psychology
Positive Psychology is an investigation of positive emotions & adaptive behaviors and the development of personal strengths and pro-social behaviors. Implications for self-growth, relationships & institutions will be discussed. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC215
Social Psychology
The study of social interaction; theoretical perspective in social psychology, group dynamics, conformity and deviance, leadership, intergroup conflict, gender roles, and social factors in health. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC241
Health Psychology
Review of psychological influences on how people stay healthy, why people may be predisposed to illness due to psychological factors, and why psychological techniques may facilitate treatment. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC247
Psychology of Adjustment
DYNAMICS OF EMOTION, FRUSTRATION, AND ANXIETY INCLUDING THE SCIENTIFIC STUDY OF PERSONAL AND INTERPERSONAL ADJUSTMENT TO CONFLICT. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC251
Abnormal Psychology
Examines behavior disorders, personality disturbances; basic concepts, classification, diagnosis, etiology, treatment. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC271
Special Topics in Psychology
Content varies according to current interests of faculty and students. Students may register for only 3 cr. per Qtr. Repeated ea. Qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC274
Introduction to Statistical Methods
Required of psychology majors. Statistical methods most commonly used in psychology. Descriptive statistics, introduction to probability and sampling distributions. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15PSYC275
Intermediate Psychological Statistics

15PSYC276
Advanced Psychological Statistics
Stat for students who have completed 274-275 sequence. More advanced statistical techniques will be reviewed with an emphasis on conducting stat tests with computer-based statistical packages (SPSS). This course will be especially helpful for students preparing to take 381 or preparing for independent research. Prereq: 15PSYC275. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15PSYC290
Guided Readings
Independent study in areas of student's choosing. Variable cr. ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC305
Cognition From Birth Through Adolescence: An Introduction
Examines how thinking & intelligence develop from infancy to early adulthood. Topics surveyed include perception, memory, language, mathematics, reasoning, concepts & categorization, & social cognition; applications relevant to education & communication disorders. Offered alternate years. Prereq: 15PSYC101, 15PSYC102, 15PSYC103. BoK: DC, SS. Credit Level: U. Credit Hrs: 3.00

15PSYC310
Topics in Advanced Human Sexuality
Students who have successfully completed Psyc 210 wish to develop research skills by investigating an approved topic beyond the information provided by standard Human Sex texts. A 20-minute power-pt. presentation & 5-8 page paper detailing the results of their research are required. Prereq: 15PSYC210. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC312
Psychology of Women
An analysis of the physiological, psychological and cultural aspects of sexuality and sex roles. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15PSYC324
UNDERSTANDING SEX OFFENSES AND THE OFFENDER
A comprehensive overview of psychological, sociological and legal issues related to sexual offenses. The sex offender and different typologies of the sex offender are addressed. BoK: SS., HU. Credit Level: U. Credit Hrs: 3.00

15PSYC331
Development: Children And Adolescents
Theory, research, and development focusing on youth. Prereq: 15PSYC101, 15PSYC102. Coreq: 15PSYC103, 15PSYC201. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC332
Development: Adulthood and Aging

15PSYC333
Child Health Psychology
Review of theory and research in pediatric (child health) psychology. Prereq: 15PSYC331. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC334
Diversity and Health
Health issues as they relate to diverse populations, including but not limited to racial, ethnic, and sexist minorities, individuals from low socio-economic backgrounds and the elderly. Prereq: 15PSYC101, 15PSYC102. Coreq: 15PSYC103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Psychology

15PSYC335 Theories of Clinical Intervention
Theory and research on models of clinical intervention/psychotherapy. Prereq: 15PSYC251. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15PSYC341 Psychology of Personality
A THEORETICAL APPROACH TO PERSONALITY, PSYCHODYNAMICS, ASPECTS OF DEVELOPMENT, AND METHODS OF STUDYING PERSONALITY. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC350 Introduction to Sport Psychology
An introduction to the psychological study of people and their behavior in sport environments. Emphasis is on the mental skills associated with high level performance in sports. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC354 Psychology of Stress Management
A detailed analysis of the nature of stress including definitions, beliefs, current research and coping strategies. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC358 Psychology of Interpersonal Relations
Theory and research on interpersonal relationships (e.g. styles of relating); discussion of different types of relationships and of relationship problems. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC360 Psychology of Food and Eating
Topics will include factors that influence food selection and ingestion, sensory control of food intake, eating disorders, cognition, and food attitudes. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC362 Brains on Drugs
Focus on the effects of illicit and prescribed drugs on human behavior, including alcohol, caffeine, nicotine, cocaine, and steroids. Topics include drug classification, drug education, the prevention and treatment of drug abuse, and physiological effects. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15PSYC363 Psychology and the Law
The focus of this course is how psychological processes are used, misused, or ignored in the legal world. We will examine memory research as it relates to eyewitness testimony, and psychopathology's relationship to issues surrounding competency to stand trial and insanity pleas, among other topics. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC365 Psychology of Conflict and Conflict Resolution
Examines intrapersonal, interpersonal, and intergroup conflict. Factors that contribute to conflict in each of the latter areas are examined as are strategies for resolving conflict. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC370 Introduction to Psychobiology
Introduction to biological bases of feelings, thoughts, and actions. BoK: NS. Credit Level: U. Credit Hrs: 3.00

15PSYC377 Uses of Psychology in Everyday Life
Emphasizes the personal application of psychological principles to everyday affairs. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC379 RESEARCH METHODS IN COGNITIVE PSYCHOLOGY
Descriptive and Laboratory projects related to topics in cognitive psychology including object recognition, speech and language

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H=University Honors course.
Psychology

15PSYC384 Fieldwork Practicum: SCIP
Supervised practical experience in an appropriate community agency. Variable cr. ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC395 Groups at Work: Theory and Practice in Social Skills
Theories of small work groups that help increase the interpersonal effectiveness of individuals and the group. Practice in skills and behaviors to expand personal competency in groups. Students may receive credit for this course or Communications 143 and 145, but not both. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC401 Seminar in Health
This course will focus on current research and clinical topics in health psychology. Faculty will teach the course based on their areas of expertise. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC418 Human Performance
The course will review models of performance and their application to human factors problems. Topics include attention, working memory, skill and the effects of personality and operational stressors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC428 The Psychology of Self and Human Relations
The course focuses on the individual psyche and moves through the various stages and processes of human interaction. That is, from the personal to the interpersonal and intergroup arenas of human development, social interaction, and social functioning. The course will focus on teaching personal and social skills for living and critical reasoning for understanding the self and its relationship to the multicultural world. Senior psychology majors only. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC434 Applications of Psychology in Professional Life
Topics include methods of job hunting, career opportunities in psychology, conflict resolution, stress management, dealing with co-workers, management skill building & ethics; provides students a chance to discuss & practice interpersonal & communication skills for success in careers. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15PSYC437 Senior Thesis Seminar
Seminar designed to guide senior psychology students through preliminary steps for completing senior thesis project with designated mentor. Prereq: 15PSYC381. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15PSYC438 Senior Thesis
Supervised empirical or other type independent research. Senior thesis or some other appropriate research is required of students wishing to graduate with honors in psychology. Arrangements with individual faculty member must be made prior to registration. Prereq: 15PSYC381. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

15PSYC451 Research Methods in Community Research
The course will provide an opportunity for students to design & conduct individual projects that emphasize methods appropriate for completing research in community settings. Students will gain experience in using statistical software (e.g. SPSS) and writing reports. Prereq: 15PSYC274. BoK: DC, SS. Credit Level: U. Credit Hrs: 3.00

15PSYC452 Research in Stress and Health
Explores the impact of stress on health outcomes. Prereq: 15PSYC241. BoK: NS, SS. Credit Level: U. Credit Hrs: 3.00

Psychology

15PSYC475 Seminar for Honors Students in Psychology
Discussion of controversial issues in psychology including position papers and debate. Prereq: 15PSYC381. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15PSYC490 Psychological Research
Supervised experience assisting in or conducting empirical research. Variable cr. ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC501 Psychophysiology and Psychosomatic Illness
Psychophysiological & psychosomatic disorders are physical conditions that are affected by psychological factors. This course will examine present theories of the origin and treatment of these illnesses. Prereq: 15PSYC241. BoK: NS, SS. Credit Level: U. G. Credit Hrs: 3.00

15PSYC502 Social Psychology
The study of social interaction; interpersonal attraction, altruism and helping behavior, human aggression, social attitudes and attitude change, perceiving other persons, and self-concept. BoK: SS. Credit Level: U. G. Credit Hrs: 3.00

15PSYC510 Psycholinguistics: The Psychology of Language
Psycholinguistic study of the structure, acquisition, and uses of language. Topics covered include the biological basis of language, the linguistic structure of language, children's acquisition of language, language comprehension, discourse processing, conversation, language, speech perception, language disorders in children. Prereq: 15PSYC381. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

15PSYC513 Psychology of Sexual Orientation
An analysis of the psychological, cultural and physiological aspects of sexual orientation. BoK: SE. Credit Level: U. G. Credit Hrs: 3.00

15PSYC517 Physiological Psychology
Physiological correlates of behavior: neurophysiology, neuroanatomy, motivation, emotion, learning, memory, brain-behavior relationships. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

15PSYC518 Physiological Psychology
Physiological correlates of behavior: neurophysiology, neuroanatomy, motivation, emotion, learning, memory, brain-behavior relationships. The second offering in a two-part course sequence. Prereq.: Introductory biology course recommended. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

15PSYC519 The Remembering Brain
Explores what goes on in the human brain from multiple perspectives as we learn and remember. Focus on brain mechanisms that regulate memory, amnesia & memory loss, learning strategies, sub-conscious memory & other topics. Interest neurosciences, psych, educ, comm, dis, biomedical engineering. Perm of Instructor. BoK: NS, SS. Credit Level: U. Credit Hrs: 3.00

15PSYC522 Psychopharmacology
Focuses on how certain classes of drugs affect the brain and endocrine system to alter mood and behavior. Particular attention is given to how drugs accomplish this by affecting receptor, cellular & genetic processes which then alter communication patterns throughout the brain. BoK: NS. Credit Level: U. G. Credit Hrs: 3.00

15PSYC526 Death and Dying
The study of how individuals view dying and death at different points in the life span. Examines the process of dying, cultural attitudes toward...
Psychology

15PSYC526
Death and Dying
dead, coping with different types of loss, death education and
counseling, and ethical issues. Prereq: 30PSYC101, 30PSYC175. BoK:
SS, SE. Credit Level: U. Credit Hrs: 3.00

15PSYC535
Introduction to Cognitive Psychology
An introduction to research, theory, and applied aspects of reasoning,
remembering, understanding and attention. Prereq: 15PSYC381. BoK:
NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC537
Broken Brains: Biological Bases of Mental Disorders
Study of the brain and nervous system as they relate to
Credit Level: U, G. Credit Hrs: 3.00

15PSYC540
The Psychology of Ideology
Ideology as understood primarily by social and developmental
psychologists. Topics include authoritarianism, prejudice, and group
processes. Prereq: 15PSYC274, 15PSYC275. BoK: SE, SS. Credit
Level: U, G. Credit Hrs: 3.00

15PSYC543
Motivation
Dynamic, behavioral, and cognitive approaches to human and animal
motivation, research methods and results. Prereq: 15PSYC381. BoK:
NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC552
History and Systems
Overview of the development of scientific psychology from its
foundations in Western intellectual culture. BoK: SS. Credit Level: U.
Credit Hrs: 3.00

15PSYC571
Advanced Special Topics in Psychology
Content varies each quarter according to the interests of faculty and
students. Students may register for only 3 cr. per qtr. Course is
repeated each qtr. Arrangements with individual faculty member must
be made prior to registration. BoK: NA. Credit Level: U, G. Credit Hrs:
3.00

15PSYC575
Psychological Measurement and Testing
Measurement theory and application; reliability, validity. Use of tests of
intelligence, aptitude, achievement and personality. Prereq: 15PSYC381.
BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC580
The Development of Prejudice
The historic and cultural bases of prejudice and discrimination will be
explored. Students will participate in small group discussions of topic
material as well as explore potential manifestations of prejudice and/or
discrimination within our campus community. BoK: NA. Credit Level: U,
G. Credit Hrs: 3.00

15PSYC590
Teaching Assistant Practicum
Supervised experience as a teaching assistant. Variable ug. cr. ea. qtr.
BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC595
Psychology of Men
The study of how men are acculturated and stereotyped by society.
Explored are the dilemmas men face in our changing society. Particular
emphasis is on the disparity between society's view of men and our
(men and women) experience of men individually and collectively. BoK:
DC. Credit Level: U, G. Credit Hrs: 3.00

Psychology

15PSYC601
Industrial Psychology
Individual and social problems in selection, training, motivation,
efficiency, appraisal, morale, communication, and leadership. BoK: NA.
Credit Level: U, G. Credit Hrs: 2.00-3.00

15PSYC622
Contemporary Issues: Child Health & Mental Health
Contemporary issues such as child psychopathology, influence of the
media on children, and children's reaction to trauma. BoK: NA. Credit
Level: U, G. Credit Hrs: 3.00

15PSYC628
PSYCHOLOGY OF WORLD EVENTS: INTERNATIONAL
CONFICTAND GLOBALIZATION
Psychological factors involved in modern inter- national & ethnic
conflicts & in economic and cultural globalization. Special attention to
the interpretation of personal statements, eyewitness accounts,
autobiographical materials & interviews. BoK: SS, DC. Credit Level: U,
G. Credit Hrs: 3.00

15PSYC631
Program Evaluation and Policy Analysis
Examines how programs and policies function in health, urban studies,
business, and government. Topics include research design; sampling,
questionnaire design; structured and in-depth interviewing;
ethnographic field work; design, managerial, and political issues in
evaluation and policy analysis; etc. Prereq: 15PSYC381. BoK: NA.
Credit Level: U, G. Credit Hrs: 3.00

15PSYC648
Social Psychology of Urban Life
Psychological aspects of life in cities. BoK: NA. Credit Level: U, G.
Credit Hrs: 3.00

15PSYC649
Social Psychology of Urban Life
Psychological aspects of life in cities; the world perspective. BoK: NA.
Credit Level: U, G. Credit Hrs: 3.00

15PSYC652
Psychology of Management
In this seminar, students will discuss psycho- social issues related to
being a leader in our global economy. The course bridges issues for
psychology and business, including assuming a leadership role,
networking, women as leaders, workplace stress, family & business,
understanding mergers and acquisition and the work environment. BoK:
NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC659
Social Structure and Personality
Interrelations between society and personality; social influences upon
self-concept; dramaturgical theory. Prereq: 15PSYC101. BoK: NA.
Credit Level: U, G. Credit Hrs: 3.00

15PSYC661
Advanced Individual Work in Psychology
Variable ug. cr. ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

15PSYC680
The Psychology of Religion and Spirituality
Examination of: (1) definitions of religion, faith, spirituality, post-modern
psychology of religion and current issues within and con- tunities
between psychology and religion; (2) history of psychospiritual/religious
thought from ancient through modern philosophy; (3) biological,
behavioral, laboratory and comparative theories of religion; (4) research
methods in psychology of religion; (5) major psychological theories and
systems in the psychology of religion/spirituality; (6) implications for
theory development and research. Perm of Instructor. BoK: NA. Credit
Level: U. Credit Hrs: 3.00-4.00
Psychology

15PSYC681
Africana Psychology: Historical and Contemporary Thought and Praxis
Course examines: (A) the roots of a “Black psychology” in 1) the philosophy and context of ancient Egyptian/Kemetic beliefs and those of other classical African civilizations; 2) 20th century philosophical and sociopolitical African diaspora thought and praxis (e.g., Nkrumah, Senghor, Ouida, Fanon, W.E.B. DuBois, Locke) as well as in current African/Black philosophy (e.g., Outlaw, Davis, Hooks, Asante, West); and (B) Contemporary Black Psychology: the major theories, issues, and research in Black/African American psychology (e.g., Clarke, White, Nobles, Hilliard, Akbar) as well as the future direction of an “Africana Psychology.” BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15PSYC710
Individual Work in Social Psychology
May be taken repeatedly. Offered ea. qtr. Uг. or gr. cr. to be arranged. See Director, Graduate Program in Social Psychology. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

15PSYC714
Descriptive Statistics and Probability
Numerical and graphical methods for describing and presenting sets of data and relationships between variables. Introduction to probability theory. Introduction to statistical inference. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC715
Inferential Statistics
Survey of statistical techniques for making inferences about means, variances, proportions, and distributions. Introduction to the Analysis of Variance. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC716
Modeling Experimental and Observational Data
Multiple regression and analysis of variance. Specifying, estimating and evaluating statistical models. Prereq: 15PSYC715. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC729
Human Factors Seminar
History, principles, and guidelines of human factors as they impact the design of hardware and software as used by people and business. Sr. undergrad. or gr. standing. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC741
Interdisciplinary Studies in Developmental Disorders I
Multifaceted approach to understanding of mental retardation. Psychological, medical, social, educational areas. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15PSYC760
Applying Psychological Principles to African Americans
Seminar on theory, research & practice in the application of psychological principles to African Americans. Presentations by students, faculty & practitioners. Students will be required to share ongoing projects & asked to give and receive feedback on considering ethnicity in research. Perm of Instructor. BoK: DC, SS. Credit Level: U, G. Credit Hrs: 1.00-3.00

15PSYC721
Core: Social and Personality
Social bases of behavior and theories of personality. Credit Level: G. Credit Hrs: 3.00

15PSYC722
Core: Development
Psychological theories of lifespan development. Credit Level: G. Credit Hrs: 3.00

15PSYC723
Core: Personality
Theories of personality. Credit Level: G. Credit Hrs: 3.00

15PSYC731
Core of Psychology: Biological Bases
This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allocated quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC732
Core of Psychology: Social
This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allocated quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC733
Core of Psychology: History and Philosophy
This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allocated quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC734
Core of Psychology: Perception
This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allocated quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC735
Core of Psychology: Cognition and Learning
This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allocated quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC736
Core of Psychology: Personality and Development
This is one of six content courses designed to cover each of the following content areas such that the content is completed within the six allocated quarters of study: History and Philosophy of Psychology; Biological Bases of Behavior; Cognition and Learning; Social Psychology; Perception; Personality; Developmental Psychology; Applications of Psychology. Each of the core modules will be taught each year. Credit Level: G. Credit Hrs: 3.00

15PSYC737
Professional Development: Ethics
This seminar will be required of first year students, and is designed to acquaint students with basic concepts in professional ethics governing research, teaching and applications of psychology. Credit Level: G. Credit Hrs: 1.00

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15PSYC728</td>
<td>Professional Development: Proposal Writing</td>
<td>This seminar will be required of first year students, and is designed to provide students with basic skills associated with writing research proposals. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>15PSYC729</td>
<td>Professional Development: Presentation Skills</td>
<td>This seminar will be required of first year students, and is designed to provide students with basic skills needed to prepare and make professional presentations in the course of their teaching, research or applied work. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>15PSYC744</td>
<td>Advanced Social Psychology</td>
<td>Systematic review of major theories and empirical findings in social psychology. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15PSYC745</td>
<td>Experimental Research Seminar</td>
<td>Informal presentations, discussion of research by graduate students and faculty in experimental psychology. Required of first, second, and third year experimental graduate students. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC780</td>
<td>Generalized Linear Models</td>
<td>Introduction to and applications of the generalized linear model and the generalized linear mixed model in psychological research. Prereq: Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC781</td>
<td>Factor Analysis And Structural Equation Models</td>
<td>Introduction to and applications of factor analysis and structural equation modeling in psychological research. Prereq: Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC799</td>
<td>Research on the Master's Thesis</td>
<td>Students may register for 799 repeatedly but not for more than 18 credits in total. (cf. Psych. 899 and 999). Offered each quarter. Credit Level: G. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>15PSYC806</td>
<td>Descriptive Psychopathology</td>
<td>A survey of recent theories and research in psychopathology, the nature of abnormality, symptoms, and current research work with pathological groups. Prereq: Students who have not been admitted into the Ph.D. program in Clin. Psych. must obtain consent of the instr., the Dir. of Clin. Training, and the Dir. of Grad. Studies prior to enrolling for this course. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC810</td>
<td>Psychopathology of Childhood</td>
<td>Clinical overview of disturbances of development and personality, including therapeutic and research issues. Prereq.: Students who have not been admitted into the Ph.D. program in Clin. Psych. must obtain consent of the instr., the Dir. of Clin. Training, and the Dir. of Grad. Studies prior to enrolling for this course. Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>15PSYC815</td>
<td>Adult Intellectual Assessment</td>
<td>Theory and application of adult intellectual assessment. Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>15PSYC818</td>
<td>Performance and Information-Processing</td>
<td>The course will explore the use of information-processing models in human factors. Models will be evaluated in the contexts of laboratory studies, Real-world skills and individual and group differences. Prereq: Credit Level: G. Credit Hrs: 3.00</td>
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**Psychology**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>15PSYC821</td>
<td>Psychology of Perception</td>
<td>Intensive treatment of psychophysics and organization, stability, development of perceptual processes. Current theories of perception and their experimental bases. Credit Level: G. Credit Hrs: 3.00-4.00</td>
</tr>
<tr>
<td>15PSYC824</td>
<td>Stress &amp; Cognition</td>
<td>The course will begin by reviewing cognitive theories of stress processes. It will then review their application to studies of stress and performance individual differences, and clinical anxiety and depression. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC826</td>
<td>Experimental Design</td>
<td>Applications of and theoretical issues in experimental design; programming general linear models for ANOVAs. The second offering in a two-part course sequence. Prereq.: One year of graduate statistics. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15PSYC830</td>
<td>Seminar: Ethical and Professional Issues in Professional Psychology</td>
<td>A review and discussion of the key ethical and professional issues of interest to professional psychologists. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC838</td>
<td>DIVERSITY IN CLINICAL PSYCHOLOGY</td>
<td>Diversity Issues in research and clinical practice with particular emphasis on ethnicity, gender and sexual orientation. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC840</td>
<td>Theory of Development</td>
<td>Students will read, discuss and write about theoretical approaches to development. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC842</td>
<td>Family Theory and Family Therapy</td>
<td>The family is viewed as a social system with a culture. Within this context, several major approaches to family therapy will be examined. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC853</td>
<td>Psychological Measurement</td>
<td>Types of measurement, reliability, validity, test development, scaling, clinical assessment, professional standards, and ethics. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC854</td>
<td>Introduction to Psychotherapy</td>
<td>Lab. experience in interview methods, administration; interpretation of intelligence, personality tests, report writing, case histories. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15PSYC856</td>
<td>Assessment</td>
<td>Lab. experience in interview methods, administration; interpretation of intelligence, personality tests, report writing, case histories. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 3.00-4.00</td>
</tr>
</tbody>
</table>
Psychology

15PSYC856 Assessment
Lab. experience in interview methods, administration; interpretation of intelligence, personality tests, report writing, case histories. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 3.00-4.00

15PSYC858 Psychotherapy II
See 15-055-857. Theories and applications of psychotherapeutic procedures with groups. Credit Level: G. Credit Hrs: 4.00

15PSYC860 Measurement of Psychopathology
Measurement of psychopathology with emphasis on the MMPI. Credit Level: G. Credit Hrs: 3.00

15PSYC865 Pediatric Neuropsychology Assessment -- Practicum I
Training and experience in the administration of neuropsychological tests in a pediatric setting; lectures and readings on various topics in pediatric neuropsychology, including the neuropsychology of learning disabilities and cerebral plasticity. Credit Level: G. Credit Hrs: 1.00-3.00

15PSYC867 Pediatric Neuropsychology Assessment -- Practicum III
Training and experience in the administration of neuropsychological tests in a pediatric setting; lectures and readings on various topics in pediatric neuropsychology, including the neuropsychology of learning disabilities and cerebral plasticity. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-3.00

15PSYC870 Clinical Case Conference
This is an educational event in which departmental alumni, faculty and mental health professionals provide an overview of public and private practice in the community. The audience is graduate students in the psychology department who learn about clinical and research aspects of current mental health care. Credit Level: G. Credit Hrs: 1.00

15PSYC871 Individual Work in Psychology
Supervised research, reading, or practical experience. Variable cr. ea. qtr. Credit Level: G. Credit Hrs: 1.00-15.00

15PSYC872 Clinical Psychology Internship Preparation Seminar
Seminar in preparation for Clinical Psychology Internship applications. Credit Level: G. Credit Hrs: 1.00

15PSYC873 Seminar in Child Clinical Psychology
Read and discuss developmental and clinical research relevant to child clinical psychology. Credit Level: G. Credit Hrs: 1.00

15PSYC874 Child Clinical Case Conference
This is a seminar in which students will present their child and adolescent clinical cases for discussion in addition to discussing readings in family therapy. Credit Level: G. Credit Hrs: 1.00

15PSYC877 Theories of Personality
Psyodynamic theories. Credit Level: G. Credit Hrs: 3.00

15PSYC880 Practicum in Crisis Intervention
Practice in assessment and treatment of short-term clients, conducted through the University Walk-In Clinic. Cr. TBA. Credit Level: G. Credit Hrs: 1.00-15.00

15PSYC881 Intervention in Clinical Psychology
Course will examine theory and research relevant to the formulation, development, and implementation of psychological interventions. Credit

Psychology

15PSYC881 Intervention in Clinical Psychology
Level: G. Credit Hrs: 3.00

15PSYC888 Clinical Practica
Involves assessment, diagnosis, and treatment of emotional disorders under supervision at an associated mental health agency. Cr. TBA. Credit Level: G. Credit Hrs: 1.00-15.00

15PSYC891 Developmental Disorders: Psychopathology and Interventions
This 3-hours course will focus on a review of developmental disabilities in children and adolescents. Current research in assessment, cognitive development, and child and family interventions will be reviewed. Credit Level: G. Credit Hrs: 3.00

15PSYC892 Internalizing Disorders: Psychopathology and Interventions
This 3-hours course will focus on a review of internalizing disorders in children & adolescents. Current research in assessment, psychopathology, and child and family therapy will be reviewed. Credit Level: G. Credit Hrs: 3.00

15PSYC893 Externalizing Disorders: Psychopathology and Interventions
This 3-hours course will focus on a review of externalizing disorders in children & adolescents. Current research in assessment, psychopathology, and child and family therapy will be reviewed. Credit Level: G. Credit Hrs: 3.00

15PSYC898 Research Methods in Psychology
Empiricism in psychology, modes of analysis, comparison of experimental, quasi-experimental and correlational designs, methods for data collection, overview of secondary analysis and meta-analysis. Credit Level: G. Credit Hrs: 3.00

15PSYC899 Non-Thesis Research by a Graduate Student
May be elected repeatedly. Credit Level: G. Credit Hrs: 1.00-15.00

15PSYC915 Seminar in Health Psychology
Examination and discussion of the research literature in health psychology. Papers in focal areas are chosen each quarter and critiqued. Recent developments are emphasized. Credit Level: G. Credit Hrs: 1.00

15PSYC920 Neuropsychology Case Conference
Clinical neuropsychology case conceptualization and interpretation. Credit Level: G. Credit Hrs: 1.00

15PSYC922 Clinical Neuropsychology I
Discussion of the theoretical and empirical literature on brain-behavior relationships and examination of the clinical features of the major neurobehavioral syndromes, including visuo-perceptual, aphasic, amnestic, and apraxic disturbances. Credit Level: G. Credit Hrs: 3.00

15PSYC923 Clinical Neuropsychology II
Emphasis is on the etiology and assessment of focal and nonfocal cerebral impairment related to trauma, neoplasm, cerebrovascular disease, degenerative dementias, and toxic-metabolic disorders. Credit Level: G. Credit Hrs: 3.00

15PSYC925 Seminar in Neuropsychology
Examine and discuss research literature and clinical and professional issues of relevance to clinical neuroscience and neuropsychology. Credit Level: G. Credit Hrs: 1.00

H=University Honors course.
Psychology

15PSYC926
Seminar in Neuropsychology
Examine and discuss research literature and clinical and professional issues of relevance to clinical neuroscience and neuropsychology. Prereq: 15PSYC925. Credit Level: G. Credit Hrs: 1.00

15PSYC927
Seminar in Neuropsychology
Examine and discuss research literature and clinical and professional issues of relevance to clinical neuroscience and neuropsychology. Prereq: 15PSYC926. Credit Level: G. Credit Hrs: 1.00

15PSYC928
Seminar in Cognitive Neuropsychology
Reading and discussion of theoretical perspectives and methodological issues concerning integrative relationships between normal cognitive processing and neuropsychological dysfunction. Credit Level: G. Credit Hrs: 3.00

15PSYC929
Seminar in Cognitive Neuroscience
A survey of current data and theory in domains of cognitive neuroscience such as central auditory processing, memory, and language from neural network/connectionist modeling, cognitive psychology and neuropsychology and neuroimaging perspectives. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15PSYC935
Topics in Cognitive Psychology
Covers basic topics in cognitive psychology. Prereq: 15PSYC809. Credit Level: G. Credit Hrs: 3.00

15PSYC936
Practicum in Clinical Neuropsychology
Supervised clinical training in neuro-psychological assessment and intervention procedures for various patient groups with known or suspected brain disease. Credit Level: G. Credit Hrs: 1.00-6.00

15PSYC937
Practicum in Clinical Neuropsychology
Supervised clinical training in neuro-psychological assessment and intervention procedures for various patient groups with known or suspected brain disease. The second offering in a three-part course sequence. Prereq.: Admission to Clin. or Neuropsych. PhD program. Credit Level: G. Credit Hrs: 1.00-6.00

15PSYC938
Practicum in Clinical Neuropsychology
Supervised clinical training in neuro-psychological assessment and intervention procedures for various patient groups with known or suspected brain disease. The third offering in a three-part course sequence. Prereq.: Admission to Clin. or Neuropsych. PhD program. Credit Level: G. Credit Hrs: 1.00-6.00

15PSYC944
Topics in Perception and Action
Review and discussion of theoretical and empirical topics in areas such as ecological psychology, motor control and learning, postural control, and the perceptual guidance of coordinated action. Credit Level: G. Credit Hrs: 3.00

15PSYC945
Topics in Perception and Action
Continued review and discussion of theoretical and empirical topics in areas such as ecological psychology, motor control and learning, postural control, and the perceptual guidance of coordinated action. The second of a three-course sequence. Credit Level: G. Credit Hrs: 3.00

15PSYC974
Seminar: Current Research in Human Learning
Reading and critical discussion of recent major contributions to human learning. Offered ea. qtr., may be elected repeatedly. Credit Level: G. Credit Hrs: 1.00-3.00

Psychology

15PSYC999
PhD Dissertation Research
Students may register for 999 repeatedly up to a total of 45 credits. Credit Level: G. Credit Hrs: 1.00-18.00

Religious Studies

15RELG101
Introduction to the Study of Religion
This course is an introduction to the various methodologies used in the academic study of religion. The course surveys the phenomenological, psychological, anthropological, sociological, historical-critical, literary, and hermeneutical perspectives. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG201
History and Thought: Christianity
This course examines the earliest period of Christianity's history, from its origins in Palestinian Judaism to the Fourth Ecumenical Council. BoK: HP. Credit Level: U. Credit Hrs: 3.00

15RELG246
Sacred Texts: Asian Traditions
Drawing on a diverse selection of readings, we explore the nature and use of texts in Asia, religious, cultural, and historical themes, and the fascination Asian texts have held in the West. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

15RELG260
History and Thought: Islam
The course will cover the emergence of Islam in seventh-century Arabia with the Prophet Muhammad and the Qur'an; the spread of Islam and the major periods of Islamic history; Islamic Law and Theology; the basic beliefs and practices of Islam which are shared by all Muslims; several major movements within Islam; Islamic reactions to the West including modernist movements and Islamist movements, and the situation of Muslims living in the West, especially the United States. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15RELG262
History and Thought: Buddhism
This course will emphasize the main teachings of the historical Buddha including the Four Noble Truths and The Eight-Fold Path. Such important concepts as karma, enlightenment, and emptiness will be explored. BoK: HP., DC. Credit Level: U. Credit Hrs: 3.00

15RELG317
Religion, Medicine and Healing
This course will examine the intimate connection between religion and medicine through an investigation of the nature of health and healing. What does it mean to be whole and healthy and how do these traditions address and understand illness. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG319
Suffering and Death
This course will focus on several human responses to death and dying: denial, acceptance, and rebellion. From the perspective of both the humanities and social sciences, the course will investigate such questions as: life after death, funeral behavior, grief and bereavement, suicide, terminal care. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG336
Religious Roots of International Conflict
This course explores the role which religion has historically played in conflict between nations. Following a historical overview of the concept of "holy war" in centuries past, we will then focus on several specific examples of religiously-inspired conflict in the 20th century. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15RELG349
Sacred Space, Sacred Time
Sacred Space deals with architecture, placement and symbolism found in places and buildings for worship in five major religions: Judaism,
Introduction to Literary Theory
A general introduction to literary theories and the organization of literary analyses based on these theories. Prereq: 15FREN302. BoK: LT. Credit Level: U. Credit Hrs: 3.00

Spirituality and Mysticism
An examination of the close relationship between spirituality and mysticism, and an analysis of the mystical experience, which belongs to the core of all religion. This comparative survey will encompass ancient, medieval and some modern sources derived from both Eastern and Western religious traditions. Issues such as the contemporary relevance of mystical literature and its value in terms of our own personal growth and transformation will be considered. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Religion and Sexuality
This course examines the connection between religion and human sexuality. The history and development of such topics as purity and impurity, sexual taboos, celibacy, homosexuality and sex as a spiritual path will be discussed. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Fundamentalism
An in-depth study into the modern phenomenon of fundamentalism. This course will examine the historical circumstances that gave rise to fundamentalism and its growth. Emphasis will be on fundamentalism in American Christian culture with some attention to other major religious traditions. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Introduction to Language Learning
An introduction to the process of learning a language and an orientation to basic linguistic elements including strategies for memorizing and remembering vocabulary and grammar. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Revolutionary Women: Wollstonecraft and France's Last Queen
Mary Wollstonecraft and Marie Antoinette led very different and controversial lives in a Europe under radical change. The British feminist historian and Habsburg Queen of France sought freedom and wrote their own roles with significant social and political impacts on a larger world. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Brazilian Culture
Introduction to the history, land & peoples of Brazil. Topics include slavery & its legacy, religions, economic growth, urban violence & poverty, and tourism. BoK: HU. Credit Level: U. Credit Hrs: 3.00

European Colonialism
Investigates European colonialism and its effect on both Europe and other regions of the world, concentrating primarily on the colonial empires established by three Romance Language speaking nations - Portugal, Spain and France. BoK: HU. Credit Level: U. Credit Hrs: 3.00

Brazilian Culture Through Film
A consideration of Brazilian economic, political and social culture through film. Contemporary issues related to race relations, crime, and poverty are also be studied. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Introduction to Literary Theory
A general introduction to literary theories and the organization of literary analyses based on these theories. Prereq: 15FREN302. BoK: LT. Credit Level: U. Credit Hrs: 3.00
Russian Languages and Literature

15RLL753
Computer Assisted Language Learning in the Romance Languages
Credit Hrs: 4.00

15RLL762
Introduction to Graduate Studies formerly Bibliography and Methods of Research
This course introduces first-year French and Spanish students to the elements of successful graduate study and to the teaching profession in higher education. Credit Level: G. Credit Hrs: 1.00

15RLL763
Bibliography & Research Methods
An introduction to bibliography and research methods in the Romance Languages and Literatures. Credit Level: G. Credit Hrs: 4.00

15RLL764
Professional Practices
Preparation for the academic job search including application resume and interview techniques. Credit Level: G. Credit Hrs: 1.00

15RLL800
Interdisciplinary Seminar
A team-taught course confronting issues in language, literature or culture, or all three which cross traditional boundaries. This course is normally preceded by a Topics or Readings course. Credit Level: G. Credit Hrs: 4.00

15RLL821
Literature of exile
A comparative study of the literature of exiles in the Romance Languages Credit Level: G. Credit Hrs: 4.00

15RLL919
Professional Development
This course helps doctoral students prepare for the job search and for success in a career in higher education. Topics studied include an overview of higher education in the US; effective job searches; interview techniques; the teaching portfolio. Credit Level: G. Credit Hrs: 4.00

Russian

15RUSS101
Elementary Russian I
For beginning students. Reading, writing, culture, grammar and conversation. Fulfills college language requirement when followed by Russian 201-2-3. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS101H
Honors Elementary Russian
Acquaints students with basics of Russian language, culture, and everyday life. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS102
Elementary Russian II
For beginning students. Reading, writing, culture, grammar and conversation. Fulfills college language requirement when followed by Russian 201-2-3. The second offering in a three-part course sequence. Prereq: 15RUSS101. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS102H
Elementary Russian Honors
A section of Elementary Russian for Honors students. The second offering of a three-part course sequence. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS103
Elementary Russian III
For beginning students. Reading, writing, culture, grammar and conversation. Fulfills college language requirement when followed by Russian 201-2-3. The third offering in a three-part course sequence. Prereq: 15RUSS102. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS103H
Elementary Russian Honors
A section of Elementary Russian for Honors students. The third offering in a three-part course sequence. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS111
Extended Basic Russian 1
Basic Russian language and culture. First quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS112
Extended Basic Russian 2
Basic Russian language and culture. Second quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS101. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS113
Extended Basic Russian 3
Basic Russian language and culture. Third quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS102. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS114
Extended Basic Russian 4
Basic Russian language and culture. Fourth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS103. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS115
Extended Basic Russian 5
Basic Russian language and culture. Fifth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS201. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS116
Extended Basic Russian 6
Basic Russian language and culture. Sixth quarter in the extended 6-quarter sequence to fulfill the A&S language requirement. Prereq: 15RUSS202. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15RUSS201
Intermediate Russian I
This course sequence (201-2-3) fulfills the college language requirement. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS202
Intermediate Russian II
This course sequence fulfills the college language requirement. The second offering in a three-part course sequence. Prereq: 15RUSS201. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS203
Intermediate Russian III
This course sequence (201-2-3) fulfills the college language requirement. The third offering in a three-part course sequence. Prereq: 15RUSS202. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS302
Russian Conversation and Reading Two
For advanced students. The second offering in a three-part course sequence. Prereq: 15RUSS301. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15RUSS581
Elementary Russian I
ELMEN RUSSIAN I BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

15RUSS582
Elementary Russian II
ELMEN RUSSIAN II Prereq: 15RUSS581. BoK: HU, DC. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
**Russian**

- **15RUSS583 Elementary Russian III**  
  ELEMEN RUSSIAN III Prereq: 15RUSS582. BoK: HU, DC. Credit Level: U. G. Credit Hrs: 3.00

- **15RUSS584 Intermediate Russian I**  
  INTERM RUSSIAN I BoK: HU, DC. Credit Level: U. G. Credit Hrs: 3.00

- **15RUSS585 Intermediate Russian II**  
  INTERM RUSSIAN II Prereq: 15RUSS584. BoK: HU, DC. Credit Level: U. G. Credit Hrs: 3.00

- **15RUSS586 Intermediate Russian III**  
  INTERM RUSSIAN III Prereq: 15RUSS585. BoK: HU, DC. Credit Level: U. G. Credit Hrs: 3.00

- **15RUSS591 Independent Study**  
  INDEPENDENT STUDY BoK: NA. Credit Level: U. G. Credit Hrs: 1.00-15.00

- **15RUSS592 Independent Study**  
  INDEPENDENT STUDY BoK: NA. Credit Level: U. G. Credit Hrs: 1.00-15.00

- **15RUSS593 Independent Study**  
  INDEPENDENT STUDY BoK: NA. Credit Level: U. G. Credit Hrs: 1.00-15.00

**Sociology**

- **15SOC141 Introduction to Sociology**  
  An introduction to sociological principles and perspectives for the analysis of the social character of human activities, particularly in contemporary society. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

- **15SOC142 Introduction to Sociology II**  
  An examination of social structure with emphasis on the organization of major institutions, the relationship of humans to their environments, and social change. FORMERLY KNOWN AS SOCIETIES IN CHANGE. Prereq: 15SOC141. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

- **15SOC143 Contemporary Social Issues**  
  Discussion of selected social issues and problems of current concern in society. Prereq: 15SOC141. Transfer Module. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

- **15SOC144 Barriers to Equality**  
  An examination of forces of inequality (e.g., class, gender, race/ethnicity) as major influences on the structure of interaction in society and on access to social opportunity. Prereq: 15SOC141. Transfer Module. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

- **15SOC145 Understanding Social Behavior**  
  An analysis of social bases of individual behavior, including the influence of formal and informal groups and other social phenomena. Prereq: 15SOC141. Transfer Module. BoK: SS. Credit Level: U. Credit Hrs: 3.00

- **15SOC273 Substance Abuse in American Society**  
  An interdisciplinary survey of substance abuse in the U.S. drawing from biology, psychology and sociology. Includes an examination of the causes of chemical dependency along with strategies for intervention, treatment and prevention. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

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H=University Honors course.
Credit Level: U. Credit Hrs: 3.00

15SOC321
Methods - Social Research
Course focus is on elements of the research process and the strategies used by sociologists to undertake valid social research. Topics will include developing the research question, doing the literature review, conceptualization and measurement, research ethics, and sampling, in addition to coverage of various techniques for projects. Prereq: 15SOC141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC322
Methods - Social Research
Course focus is on elements of the research process and the strategies used by sociologists to undertake valid social research. Topics will include developing the research question, doing the literature review, conceptualization and measurement, research ethics, and sampling, in addition to coverage of various techniques for projects. This is the second offering in a two-part course sequence. Prereq.: 321. Prereq: 15SOC318, 15SOC321. BoK: NA. Credit Level: U. Credit Hrs: 4.00

15SOC325
Deviance
Sociological perspectives on deviance and control, including examination of social causes and social reactions to deviance. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC326
Elite Deviance
In this course, we will explore the nature and varieties of deviance performed by the elite in society, ranging from the violation of professional ethics to corporate and governmental crimes. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC328
Women, Culture and Society
An interdisciplinary introduction to Women's Studies analyzing women's social, economic, and political position in the U.S. today. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15SOC330
The Individual in Society
Ethnomethodological, symbolic interactionist and other microsociological approaches to individuals in interaction and society. Topics include identity, reasoning, gender differences, and face-to-face interaction. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC335
Social-Psychological Effects of Economic Disadvantage
Examination of the social-psychological effects of economic disadvantage, including coping with life events, long term consequences, and impact on children and adolescents. Prereq: 15SOC141. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15SOC340
Sociology of Death and Dying
Exploration of historical and modern societal attitudes towards death and dying, cultural practices of funeral ritual, body disposition and grieving, and legal and ethical issues surrounding end of life. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC345
Urban Society
An introductory course in urban sociology which examines cities from historical, theoretical, and empirical perspectives. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC361
Homelessness
An examination of the causes and consequences of homelessness in the United States with an emphasis on the city of Cincinnati. Students will participate in an unpaid service experience with a community service agency serving the homeless. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC365
Sociology of Sports
Analysis of sports as a major leisure institution that reflects the structure of the larger society; issues in professional and collegiate sports are examined. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC370
Sociology of Social Problems
An examination of the processes whereby social problems and their solutions are constructed in the public arena; specifically, an examination of social groups that promote social problems, the methods used for influencing the public, and the opportunities and constraints associated with finding solutions to social problems. Prereq: 15SOC141. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15SOC371
Social Change
An examination of social change historically and cross-nationally, focusing on such issues as the roles of technology, culture, demographic conditions and power. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC373
Race in Modern Society
A sociological analysis of race and ethnicity. Special attention given to racial and ethnic prejudice, discrimination, and social inequality. Prereq: 15SOC141. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15SOC380
Men and Masculinity
An examination of men's position/role in society, changing definitions of masculinity, media portrayals, and issues of social identity. Prereq: 15SOC141. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15SOC386
El Salvador Study Tour
An examination of inequality and social change in El Salvador. Assigned readings discussed in meetings during the quarter followed by one week in El Salvador Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15SOC389
Youth and Society
An analysis of the status of youth and adolescents in society. Particular emphasis is placed on the ambiguity of the role of adolescents/youth in modern society and the special problems which result. (Formerly 15SOC406) Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC401
Sociology of Education
Sociological concepts and theories are applied to issues in education. Topics will include the rise of the modern U.S. school system, the interface between schools and the stratification system, and outcomes of schooling. Prereq: 15SOC141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC407
Environmental Sociology
An introduction to the study of how nature shapes human life and how humans shape nature. Topics include ecological restoration, social movements, global warming, natural disasters, urban environments, inequality and environmental policy. Makes connections between local, national, and global processes. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC415
The Media and Sociology
An examination of the use of sociology and social science information by the media. Emphasis will be on the critical examination of how data, issues and research are presented. Implications for the public's understanding of social issues will be explored, particularly as it relates to information provided by different media outlets. Prereq: 15SOC141.

H=University Honors course.
Sociology

15SOC415
The Media and Sociology
BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC418
Current Family Issues
A detailed analysis of contemporary family life in the United States. Discuss definitions of what constitutes a family, analyze the impact of race, class and gender on family life, and examine research on family formation and dissolution, relationships. Prereq: 15SOC141. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00-4.00

15SOC420
Sociology of Law
Analysis of law as a social institution and the process of legal development and change. Special emphasis will be given to the relationship between law and social organization, and the relation of sociocultural changes to substantive and procedural aspects of law. The concept of justice will also be analyzed. Law will be viewed as a collectivist-individualistic process and as a reflection of social and cultural values. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC444
Social Movements
Analysis of contemporary social movements within a collective behavior framework. 443 is recommended, but not required. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC448
Applied Sociology
Designed to acquaint students with both the applied and clinical elements of sociological practice. Emphasis is on the use of sociological theory, concepts, methods, and findings in non-academic settings. The course involves an unpaid "field experience" learning component. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC450
Criminology
An examination of the extent and nature of criminal behavior, theories of criminal behavior, the types of problems with research in the area, and societal efforts to deal with criminal behavior. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC452
Capstone I: Urban Inequality
An advanced examination of racial and ethnic inequality in urban housing and labor markets. The first course in a two-course sequence. Prereq: SOC318, SOC321. Coreq: SOC319, SOC322 Prereq: 15SOC318, 15SOC321. Coreq: 15SOC319, 15SOC322. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC453
Capstone II: Urban Inequality
An advanced examination, including individual empirical research projects, of racial and ethnic inequality in urban housing and labor markets. The second course in a two-course sequence. Prereq: SOC319, SOC322, SOC452 Prereq: 15SOC319, 15SOC322, 15SOC452. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC462
Capstone I: Gender, Work, and Family
An advanced examination of change affecting family life, the organization of the workplace, and the relationship between these two societal institutions. The first course in a two-course sequence. Prereq: SOC318, SOC321. Coreq: SOC319, SOC322 Prereq: 15SOC318, 15SOC321. Coreq: 15SOC319, 15SOC322. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC463
Capstone II: Gender, Work, and Family
An advanced examination, including individual empirical research projects of change affecting family life, the organization of the workplace, and the relationship between these two societal institutions. The second course in a two-course sequence. Prereq: SOC318-319, SOC321-322, SOC462. Prereq: 15SOC319, 15SOC322, 15SOC462. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC472
Capstone I: War & Society
An advanced examination of the many ways war, civil or otherwise, affects the development of society--both historically and contemporarily. The first course in a two-course sequence. Prereq: SOC318, SOC321. Coreq: SOC319, SOC322 Prereq: 15SOC318, 15SOC321. Coreq: 15SOC319, 15SOC322. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC473
Capstone II: War & Society
An advanced examination, including individual empirical research projects, of the causes of contemporary wars and their effects on life chances. The second course in a two-course sequence. Prereq: SOC319, SOC322, SOC472 Prereq: 15SOC319, 15SOC322, 15SOC472. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC475
War and Society
This course examines the relationship of contemporary war to society, both generally and in its effects on individuals. Prereq: 15SOC141. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15SOC484
Social Inequality
The causes and consequences of social inequality, especially class inequality in modern societies. Prereq: 15SOC141. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15SOC490
Sociology of Health and Illness
Examines classical and critical theories of health, illness and empirical research. Preventative approaches to health care are contrasted with disease oriented approaches on the basis of social economic and demographic factors, health care providers, patients and health care systems. Prereq: 15SOC141. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SOC501
Social Psychology
The study of social interaction; theoretical perspectives in social psychology, group dynamics, conformity and deviance, leadership, intergroup conflict, gender roles, social factors in health. Prereq: 15SOC141. BoK: SS. Credit Level: U. G. Credit Hrs: 3.00

15SOC502
Social Psychology
The study of social interaction; interpersonal attraction, altruism and helping behavior, human aggression, social attitudes and attitude change, perceiving other persons, self-concept. Prereq: 15SOC141. BoK: SS. Credit Level: U. G. Credit Hrs: 3.00

15SOC522
Professional Women
Analysis of current and past status of women in management, professions and of various factors influencing movement of women into managerial, professional positions. Prereq: 15SOC141. BoK: SS. DC. Credit Level: U. G. Credit Hrs: 3.00

15SOC565
Internship in Sociology
Supervised research or service learning in a community organization. Perm of Instructor. BoK: NA. Credit Level: U. G. Credit Hrs: 1.00-3.00

15SOC566
Internship in Sociology
Supervised research or service learning in a community organization. Perm of Instructor. BoK: NA. Credit Level: U. G. Credit Hrs: 1.00-3.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Credit Level</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15SOC567</td>
<td>Internship in Sociology</td>
<td>3.00</td>
<td>U, G</td>
<td></td>
<td>Supervised research or service learning in a community organization. Perm of Instructor. BoK: NA. Credit Hrs: 1.00-3.00</td>
</tr>
<tr>
<td>15SOC570</td>
<td>Political Sociology</td>
<td>3.00</td>
<td>U, G</td>
<td>Prereq: 15SOC141</td>
<td>Sociological analysis of political organization and political behavior. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15SOC581</td>
<td>Individual Work in Sociology</td>
<td>3.00</td>
<td>U, G</td>
<td>Prereq: 15SOC141</td>
<td>Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Available for undergraduate or graduate credit. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00</td>
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<tr>
<td>15SOC582</td>
<td>Individual Work in Sociology</td>
<td>3.00</td>
<td>U, G</td>
<td>Prereq: 15SOC141</td>
<td>Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Available for undergraduate or graduate credit. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>15SOC583</td>
<td>Individual Work in Sociology</td>
<td>3.00</td>
<td>U, G</td>
<td>Prereq: 15SOC141</td>
<td>Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Available for undergraduate or graduate credit. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td>15SOC585</td>
<td>El Salvador Study Tour</td>
<td>3.00</td>
<td>U, G</td>
<td></td>
<td>An examination of inequality and social change in El Salvador. Assigned readings discussed in meetings during the quarter followed by one week in El Salvador. Perm of Instructor. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00-4.00</td>
</tr>
<tr>
<td>15SOC591</td>
<td>Taft Undergraduate Research 1</td>
<td>3.00</td>
<td>U, G</td>
<td></td>
<td>Faculty-mentored independent study dedicated to completion of an independent research product as specified by the Dept. of Sociology’s guidelines for the Taft Undergraduate Senior Research Fellow-ship. Available only to Dept. of Sociology Taft Undergraduate Senior Research Fellows. First of a two-quarter sequence. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15SOC592</td>
<td>Taft Undergraduate Research 2</td>
<td>3.00</td>
<td>U, G</td>
<td>Prereq: 15SOC591</td>
<td>Faculty-mentored independent study dedicated to the completion of an independent research product as specified by the Dept. of Sociology’s guide- lines for the Taft Undergraduate Senior Research Fellowship. Available only to Dept. of Sociology Taft Undergraduate Senior Research Fellows. The second quarter of a two-quarter sequence. Prereq: 15SOC591. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15SOC607</td>
<td>Complex Organizations</td>
<td>3.00</td>
<td>U, G</td>
<td>Prereq: 15SOC141</td>
<td>Theory, research studies, and applications in complex organizations. A fundamental survey course for advanced undergraduate and graduate students. Prereq: 15SOC141. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15SOC608</td>
<td>Complex Organizations II</td>
<td>3.00</td>
<td>U, G</td>
<td>Prereq: 15SOC141</td>
<td>Theory and research on internal dynamics of organizations in relation to structure. Topics include opportunity structure; power, and authority; effects of tokenism; and the employment of professionals in organizations. Prereq: 15SOC141. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15SOC641</td>
<td>Introduction to Population Studies</td>
<td>3.00</td>
<td>U, G</td>
<td>Prereq: 15SOC141</td>
<td>Examines the basic concepts and principles of demography, the study of populations. Concepts and principles are applied to the United States' and the world's populations, with an emphasis on understanding population issues. (Formerly titled “Demography”.) Prereq: 15SOC319, 15SOC322. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15SOC642</td>
<td>Demographic Techniques</td>
<td>3.00</td>
<td>U, G</td>
<td>Prereq: 15SOC141</td>
<td>Examines the logic and calculations of basic demographic techniques, e.g., life tables, survival rates, and stable populations. Emphasis is on an intuitive understanding of the procedures and where they may be usefully applied. (Formerly titled “Demography” with a prerequisite of SOC641.) Prereq: 15SOC141. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>15SOC705</td>
<td>Intermediate Social Statistics</td>
<td>3.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Types and uses of statistical techniques in sociological research. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15SOC706</td>
<td>Intermediate Social Statistics</td>
<td>3.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Types and uses of statistical techniques in sociological research. Prereq: 15SOC705. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15SOC711</td>
<td>Theory Construction</td>
<td>3.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Principles of philosophy of science, research design, data collection and analysis. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15SOC712</td>
<td>Design and Techniques</td>
<td>3.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Principles of philosophy of science, research design, data collection and analysis. The second offering in a two-part course sequence. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15SOC713</td>
<td>Measurement</td>
<td>3.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Theories, issues in measurement in research. See 15-SOC-711. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15SOC714</td>
<td>Graduate Research II</td>
<td>4.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Seminar devoted to preparation of Master's thesis. Prereq: 15SOC714. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15SOC715</td>
<td>Graduate Research II</td>
<td>4.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Graduate Research II Seminar devoted to preparation of Master's thesis. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>15SOC716</td>
<td>Graduate Research II</td>
<td>4.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Seminar devoted to preparation of Master's thesis. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15SOC726</td>
<td>Youth and Society</td>
<td>4.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>An analysis of the status of youth and adolescents in society; particular emphasis is placed on the ambiguity of the role of adolescents/youth in modern society. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15SOC731</td>
<td>Individual Work in Sociology</td>
<td>4.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Master's or PhD students. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>15SOC732</td>
<td>Individual Work in Sociology</td>
<td>4.00</td>
<td>G</td>
<td>Prereq: 15SOC714</td>
<td>Guided individual research or study on a topic pre-arranged with a professor. Must have professor's permission to sign up. Master's or PhD students. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
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H=University Honors course.
Sociology

15SOC732  
**Individual Work in Sociology**  
PhD students. The second offering in a three-part course sequence.  
Credit Level: G. Credit Hrs: 1.00-15.00

15SOC733  
**Individual Work in Sociology**  
Guided individual research or study on a topic pre-arranged with a professor. Must have professor’s permission to sign up. Master’s or PhD students. The third offering in a three-part course sequence.  
Credit Level: G. Credit Hrs: 1.00-15.00

15SOC748  
**Seminar in Social Stratification**  
The study of systems of inequality in society. Major theories and current research about social class and social stratification. Credit Level: G. Credit Hrs: 4.00

15SOC749  
**Seminar in Social Stratification II**  
Analysis of dimensions of stratification and social inequality, status attainment, and social mobility. Prereq: 15SOC748. Credit Level: G. Credit Hrs: 4.00

15SOC755  
**Political Culture & Ideology**  
An examination of how culture reinforces or challenges political arrangements. Special focus on core ideas such as ideology, hegemony, and symbolic power. Credit Level: G. Credit Hrs: 4.00

15SOC760  
**Work and Occupations Seminar**  
Research and theory in work and the American occupational structure; new empirical and theoretical developments in the field are studied. Credit Level: G. Credit Hrs: 4.00

15SOC771  
**Family Theory and Research**  
Current research and theory in family studies are explored in seminar format. Credit Level: G. Credit Hrs: 4.00

15SOC784  
**Social Movements**  
Analysis of contemporary social movements within a collective behavior framework. Credit Level: G. Credit Hrs: 4.00

15SOC786  
**Teaching Sociology**  
Seminar on strategies for teaching sociology; conceptualizing and organizing course content; presentation strategies; examinations and evaluation. Credit Level: G. Credit Hrs: 4.00

15SOC794  
**Seminar in Urban Inequality**  
Explores racial and ethnic inequality in urban housing and labor markets in a seminar format. Credit Level: G. Credit Hrs: 4.00

15SOC806  
**Advanced Individual Work in Sociology**  
Guided individual research or study on a topic pre-arranged with a professor. Must have professor’s permission to sign up. Master’s or PhD students. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC808  
**Teaching Practicum Seminar**  
Problems and methods in the teaching of sociology. Required of teaching fellows and assistants in the dept. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC809  
**Teaching Practicum Seminar**  
Problems and methods in the teaching of sociology. Required of teaching fellows and assistants in the dept. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC810  
**Seminar in Sociology**  
Research and theory in significance of gender in social behavior research and stratification research. Credit Level: G. Credit Hrs: 4.00

15SOC811  
**Seminar on Race**  
Research and theory dealing with race/ethnicity as a status category; examination of conceptual measurement issues; variable effects on social outcomes and implications for social policy. Credit Level: G. Credit Hrs: 4.00

15SOC812  
**Seminar in Complex Organizations**  
Research on issues relevant to understanding of complex organizations; includes student research focusing on an organizational issue. Credit Level: G. Credit Hrs: 4.00

15SOC817  
**Sociology of Science**  
A survey of the major theories and empirical studies in the sociology of science. Topics include relationships between knowledge and power, social movements and science, reward systems in science, genetic and environmental issues, technology and social change, and science policy. Credit Level: G. Credit Hrs: 4.00

15SOC821  
**Seminar in Human Fertility**  
Theory and research on the social influences shaping childbearing behavior. Prereq: 15SOC642. Credit Level: G. Credit Hrs: 4.00

15SOC822  
**Seminar in Migration**  
Systematic reviews of theories, research strategies, and findings on the social influences shaping human migration. Prereq: 15SOC642. Credit Level: G. Credit Hrs: 4.00

15SOC825  
**Family Policy**  
This course examines contemporary perspectives on the changing American family, paying explicit attention to the relationship between public policy and trends in family life and family well being. Credit Level: G. Credit Hrs: 4.00

15SOC831  
**Advanced Individual Work in Sociology**  
Guided individual research or study on a topic pre-arranged with a professor. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC832  
**Advanced Individual Work in Sociology**  
Selected problems. Cr. Arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC833  
**Advanced Individual Work in Sociology**  
Selected problems. Cr. arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC835  
**Seminar: Relationships within Families**  
Examines theoretical and research issues in understanding family relationships. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.  
Sociology

15SOC335  Seminar: Relationships within Families
relationships over time, including decision making, effects of the addition of children, divorce, death. Prereq: 15SOC771. Credit Level: G. Credit Hrs: 4.00

15SOC480  Qualitative Research Methods
Qualitative methods of social research for MA and PhD students; research strategies will be reviewed, students will use the methodology for their own research. Credit Level: G. Credit Hrs: 4.00

15SOC483  Workplace Studies: Ethnomethodological Approaches
Covers recent qualitative ethnomethodological research on the social organization of work and technology in workplace settings. Credit Level: G. Credit Hrs: 4.00

15SOC485  Seminar in Social Change
Research seminar focusing on large-scale societal change and its attendant characteristics including urbanization, population changes, and environmental costs. Credit Level: G. Credit Hrs: 4.00

15SOC585  Sociology of Sports
An analysis of the relationship between sports, culture, and societal institutions. Credit Level: G. Credit Hrs: 4.00

15SOC587  Sociological Theory
A comparative survey of basic concepts and theories in sociology; the codification of analytic schemes; a critical analysis of trends in theory construction. Credit Level: G. Credit Hrs: 4.00

15SOC587  Sociological Theory
A comparative survey of basic concepts and theories in sociology; the codification of analytic schemes; a critical analysis of trends in theory construction. The second offering in a two-part course sequence. Credit Level: G. Credit Hrs: 4.00

15SOC588  Research Practicum Seminar
Problems and methods in sociological research. Required of students working toward the PhD degree. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC588  Research Practicum Seminar
Problems and methods in sociological research. Required of students working toward the PhD degree. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC588  Research Practicum Seminar
Problems and methods in sociological research. Required of students working toward the PhD degree. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-4.00

15SOC910  Seminar: Structural Relations Models
The use of structural modeling for analysis of social phenomena; multivariate regression techniques. Credit Level: G. Credit Hrs: 4.00

15SOC934  Symbolic Interaction Theory
Interrelations between society and individual behavior from an interactionist perspective. Prereq: 15SOC744. Credit Level: G. Credit Hrs: 4.00

15SOC937  Doctoral Dissertation Research
Supervised dissertation research pre-arranged with permission of professor. PhD students. Credit Level: G. Credit Hrs: 1.00-15.00

Sociology

15SOC938  Doctoral Dissertation Research
Cr. arranged. The second offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

15SOC939  Doctoral Dissertation Research
Cr. arranged. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-15.00

Spanish

15SPAN100  Conversational Spanish for Special Purposes
A basic conversational Spanish course for specialized fields that require speaking skills with a focused vocabulary. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15SPAN101  Basic Spanish I
Basic Spanish language and culture. First quarter in the 3-quarter sequence that fulfills the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15SPAN102  Basic Spanish II
Basic Spanish language and culture. Second quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN101. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15SPAN102H  Basic Spanish II Honors
Honors section of Basic Spanish Prereq: 15SPAN101. BoK: HU, DC. Credit Level: U. Credit Hrs: 5.00

15SPAN103  Basic Spanish III
Basic Spanish language and culture. Third quarter in the 3-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15SPAN103H  Basic Spanish III Honors
Honors section of Basic Spanish Prereq: 15SPAN102. BoK: DC, HU. Credit Level: U. Credit Hrs: 5.00

15SPAN111  Extended Basic Spanish 1
Basic Spanish language and culture. First quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15SPAN111  Extended Basic Spanish 1
Basic Spanish language and culture. First quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15SPAN112  Extended Basic Spanish 2
Basic Spanish language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN111. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15SPAN113  Extended Basic Spanish 3
Basic Spanish language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN112. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15SPAN114  Extended Basic Spanish 4
Basic Spanish language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN113. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15SPAN115  Extended Basic Spanish 5
Basic Spanish language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN114. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Spanish

15SPAN116  
Extended Basic Spanish 6  
Basic Spanish language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15SPAN115. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN161  
Intensive Spanish for International Co-op Program  
Intensive immersion course in Spanish for students with little or no experience in Spanish. Focus on functioning in Spanish in the target culture for students preparing for international co-op assignments. Other students may be admitted with permission of the instructor and the ICP director. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN180  
World Cultures - Hispanic  
General education course on issues of the Spanish speaking world. Taught in English. Satisfies content area requirement in American Diversity/World Cultures. Does not count toward major or minor in Spanish. The first part in a two-part series. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN181  
Mexican Culture  
General education course on Mexican Culture. Taught in English. Satisfies content area requirement in American Diversity/World Cultures. Does not count toward major or minor in Spanish. The second part in a two-part series. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN182  
U S Latino Culture  
An introduction to the rapidly changing and growing arts and literature of the several Hispanic cultures of the U.S. including the Cuban, Caribbean and Mexican diaspora. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN250  
Valentine House Conversational Spanish  
Conversational Spanish for Valentine House residents. BoK: DC. Credit Level: U. Credit Hrs: 1.00

15SPAN251  
Composition and Conversation  
Course taught in Spanish. Grammar review. Writing and speaking practice. The sequence is a prerequisite to courses at 300 level. Prereq: 15SPAN106. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN252  
Composition and Conversation  
Course taught in Spanish. Grammar review. Writing and speaking practice. The sequence is a prerequisite to courses at 300 level. The second offering in a three-part course sequence. Prereq.: Spanish 104-5-6 or Intermediate Spanish or appropriate Spanish Placement Test score. Prereq: 15SPAN251. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN253  
Composition and Conversation  
Course taught in Spanish. Grammar review. Writing and speaking practice. The sequence is a prerequisite to courses at 300 level. The third offering in a three-part course sequence. Prereq.: Spanish 104-5-6 or Intermediate Spanish or appropriate Spanish Placement Test score. Prereq: 15SPAN252. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN260  
Mexican Civilization through Its Art  
A combination of Mexican history and art through the analysis of paintings by two of its most famous artists: Diego Rivera and Frida Kahlo. Taught in English. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN261  
Seeing It Our/Their Way and Readings in Chicano-U  
Latino Literature. General education course on Chicano-U.S. Latino
Spanish

15SPAN312
Spanish Today
A virtual visit to today’s Spain using internet resources in an electronic classroom. Topics: Politics, Society, Economy, Culture, and Foreign Policy. Taught in Spanish. Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN313
Hispanic Culture in the U.S.
An introduction to the culture of Hispanics living in the United States. Taught in Spanish. Prereq: 15SPAN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN314
Spanish Film
Introduces cinematic works of Spanish film artist using an interdisciplinary and cross-cultural approach emphasizing socio-economic and political issues such as popular culture in nation formation, construction of gender, sexuality and immigration. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN315
Latin American Film
Introduces some of the cinematic works of Latin American film artists using an interdisciplinary and cross-cultural approach emphasizing socio-economic and political issues, such as popular culture in nation formation, construction of gender & sexuality & immigration. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN316
Latino Film in the U.S.
An introduction to the Latino films written and produced in the United States from the last two decades of the 20th Century to the present. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN320
Spanish Civilization I
Survey of the civilization of Spain, especially literary culture, from Latin antiquity through the early modern period. Taught in Spanish. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN321
Spanish Civilization II
Survey of the civilization of Spain, especially literary culture, in modern times. In Spanish BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN322
Latin American Civilization I
Survey of Latin American civilization, especially post-Colombian literary culture, through the early modern period. In Spanish. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN323
Latin American Civilization II
Survey of Latin American civilization, especially literary culture, in modern times. In Spanish. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN329
Spanish Civilization I
An introduction to the culture and civilization of Spain and Spanish America. The first of a three-part sequence. Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN330
Spanish Civilization II
An introduction to the culture and civilization of Spain and Spanish America. The second of a three part sequence. Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN331
Spanish Civilization III
A continuation of the Survey of Spanish Civilization I and II. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN332
Study Tour: The route to Santiago de Compostela
Interdisciplinary course (also offered in French) focused in the cultural implications for both Spain and Europe of the pilgrimage to Santiago de Compostela, Spain. The course deals with such aspects of this subject as art, history, or politics. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN333
Intermediate Spanish Through Theater
Practice of Spanish language through the reading, discussing and performing of Spanish and Latin American plays. Prereq: 15SPAN106, 15SPAN116. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN334
Intermediate Spanish Through Theater
A continuation of 15SPAN333, Intermediate Spanish Through Theater. Prereq: 15SPAN300. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN340
Culture Through Media
A study of the beliefs, history, habits, values and expectations of Spanish-speaking peoples through a study of videos (television and movies), radio programs and newspapers. Prereq: 15SPAN253. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN351
Pronunciation/Oral Communication
Study and practice of the sounds and intonation of Spanish, with emphasis on developing a critical ear for and correct articulation of the sounds that characterize Spanish spoken by an educated native speaker. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN354
Conversation and Pronunciation in Spanish
Study of phonetics and speaking practice on a variety of themes geared to increase vocabulary, improve grammar, improve pronunciation and promote fluency. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN364
Spanish Language & Culture I for International Co-op Program
Spanish language and culture course for international co-op program. First of a 2-course sequence required for students doing co-op in a Spanish-speaking country. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15SPAN365
Spanish Language & Culture II for International Co-op Program
Spanish Language & Culture course for international co-op program. Second in a 2-course sequence required for students doing co-op in a Spanish-speaking country. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00-9.00

15SPAN372
Spanish Literature of the Medieval Period
Survey of the literature of Spain in the medieval period. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15SPAN373
Spanish Literature of the Golden Age
Survey of the literature of Spain in the Golden Age, roughly 1500-1700. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15SPAN374
Spanish Literature of the Eighteenth and Nineteenth Centuries
Survey of the literature of 18th and 19th century Spain. BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

15SPAN375
Spanish Literature of the Twentieth Century
Survey of the literature of 20th century Spain BoK: LT, HP. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Hours</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>15SPAN381</td>
<td>Latin American Literature before Columbus</td>
<td>Surveen of the oral &quot;literature&quot;(later transcribed by Spaniards) of pre-Columbian Latin America. BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN382</td>
<td>Latin American Literature in the Colonial Period</td>
<td>Surveen of Latin American literature in the colonial periods, roughly 1500-1800. BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN383</td>
<td>Latin American Literature of the Nineteenth Century</td>
<td>Survey of Latin American literature in the 19th Century BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN384</td>
<td>Latin American Literature of the Twentieth Century</td>
<td>Survey of Latin American literature in the twentieth century BoK: LT., HP. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN421</td>
<td>Topics in Spanish Literature</td>
<td>Changing, intensive study of an area of Spanish literature: e.g., one author, literary movement, literary texts, relationships to the other arts, or literary theme. Prereq: 15SPAN371. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN422</td>
<td>Topics in Latin American Literature</td>
<td>Panoramic view of contemporary Latin American literature (poetry and prose). This course will also review the relationship between literature, cinema, arts and music. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN423</td>
<td>Topics in Hispanic Studies</td>
<td>Changing topics on aspects of the language(s), cultures or literatures of Spain and/or Latin America. Prereq: 15SPAN302. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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</tr>
<tr>
<td>15SPAN424</td>
<td>Spanish Jewry: The Jews of Medieval Spain</td>
<td>A survey of the history of Spanish Jews from the Muslim conquest of Spain in the 8th century to their expulsion in 1492. A cross-listing of existing 15JUDC481. BoK: DC., HP. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN425</td>
<td>The Sephardic Diaspora 1492 - Present</td>
<td>The experience of Sephardic Jews from the expulsion from Spain to the present. Covers the history, literature and culture of communities from the Ottoman Empire to the Americas Prereq: 15SPAN424. BoK: DC, HP. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN431</td>
<td>Spanish Civilization and Culture I</td>
<td>Taught in Spanish. An advanced course dealing with the civilization and culture of Spain from prehistoric time to the present. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN432</td>
<td>Spanish Civilization and Culture II</td>
<td>The second course in a three-part sequence. Taught in Spanish. An advanced course dealing with the civilization and culture of Spain from prehistoric time to the present. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN433</td>
<td>Spanish Civilization and Culture III</td>
<td>The final course in a three-part series. Taught in Spanish. An advanced course dealing with the civilization and culture of Spain from prehistoric time to the present. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN441</td>
<td>Latin American Civilization and Culture</td>
<td>Religious, philosophical, sociopolitical and economic beliefs in Pre-H. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN442</td>
<td>Latin American Civilization and Culture</td>
<td>Religious, philosophical, sociopolitical and economic beliefs in Pre-H. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN443</td>
<td>Latin American Civilization and Culture</td>
<td>Religious, philosophical, sociopolitical and economic beliefs in Pre-H. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN452</td>
<td>Speech and Debate</td>
<td>The second part of a three-part series. Intensive study of Spanish language skills. Emphasis on communication. Conducted in Spanish. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN454</td>
<td>Grammar and Stylistics</td>
<td>Review grammatical constructions and writing exercises designed to refine students' expression in Spanish. Prereq: 15SPAN302. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN456</td>
<td>Latin American Civilization and Culture</td>
<td>A workshop in the translation of Spanish texts into English and English texts into Spanish. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN457</td>
<td>Spanish Linguistics</td>
<td>An introduction to Spanish linguistics including grammar, morphology, and phonology. Prereq: 15SPAN302. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN481</td>
<td>Spanish Capstone</td>
<td>The capstone course for General Education requirement; to be linked with another 400-level course in the Department. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00</td>
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<tr>
<td>15SPAN495</td>
<td>Mexican Traditions</td>
<td>This course will look at major political, social and cultural traditions in Mexico's long history since the conquest. With emphases on art, architecture, literature and major festivals. Prereq: 15SPAN253. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15SPAN500</td>
<td>Service Learning</td>
<td>A supervised learning experience based in service to the Spanish speaking community in the Cincinnati area. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>15SPAN505</td>
<td>Business Spanish</td>
<td>Composition, conversation, business correspondence, written translation from and into Spanish. Undergraduates, see 305. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00</td>
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<tr>
<td>15SPAN506</td>
<td>Business Spanish</td>
<td>Composition, conversation, business correspondence, written translation from and into Spanish. Undergraduates, see 305. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00</td>
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</tbody>
</table>

H=University Honors course.
Spanish

15SPAN506  
Business Spanish  
translation from and into Spanish. Undergraduates, see 305. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN507  
Business Spanish  
Composition, conversation, business correspondence, written translation from and into Spanish. Undergraduates, see 305. The final course in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN508  
Spring Quarter in Spain  
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00

15SPAN509  
Business Spanish  
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-5.00

15SPAN510  
Undergraduate Independent Study in Spain  
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-5.00

15SPAN511  
Undergraduate Independent Study in Spain  
Description not available. BoK: NA. Credit Level: U. Credit Hrs: 3.00-5.00

15SPAN512  
Study Tour to Havana, Cuba  
Study on site of Cuba's present and past as regards the various art forms and political history. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN513  
Curriculum for Language  
Description not available. BoK: NA. Credit Level: U. Credit Hrs: 2.00

15SPAN515  
Study Tour: Spain  
A tour of one or more cities in Spain with an emphasis on culture, art, architecture and institutions. Students participate in an organized trip. This is not a class on the UC campus. Instructor permission required. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN517  
Spain Tour  
Spain Tour: Madrid and its theater. Assigned readings. One week in Madrid in December. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN521  
Topics in Spanish Literature  
A course of representative plays by the major women dramatists of 20th Century Spain, such as María Martínez Sierra, Ana Diosdado, and Paloma Pedero. Taught in Spanish. Prereq: 15SPAN354. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN522  
Topics in Latin American Literature  
Changing, intensive study one area of Latin American literature: e.g., an author, literary movements, relationships to the other arts, etc. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN523  
Topics in Hispanic Studies  
All aspects of the historical and cultural heritage of Spain from the 19th century to the present. Special emphasis on Post-Franco Spain. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

Spanish

15SPAN530  
Sec. Methods: Spanish  
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN531  
Spanish Civilization & Culture  
A course dealing with the civilization and culture of Spain from prehistoric time to the present. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN532  
Spanish Civilization and Culture  
All aspects of the historical and cultural heritage of Spain from the 19th century to the present. Special emphasis on Post-Franco Spain. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN534  
Latin American Baroque Culture  
The Baroque (colonial) period in Latin America, from the point of view of the relation between art and culture. Given in Spanish. BoK: DC., FA. Credit Level: G. U. Credit Hrs: 3.00-4.00

15SPAN541  
Latin American Civilization and Culture I  
All aspects of the cultural and historical heritage of the countries of Latin America. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN542  
Latin American Civilization and Culture I  
All aspects of the cultural and historical heritage of the countries of Latin America. The second part of a two-course sequence. Prereq: 15SPAN541. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN550  
Spanish Study Abroad  
For students participating in an established exchange program in the Spanish-speaking world. Permission of department required. Perm of Department. BoK: DC. Credit Level: U, G. Credit Hrs: 12.00-18.00

15SPAN551  
Grammar and Syntax  
Course is designed to review finer points of Spanish grammar and syntax, particularly subjunctive and past tenses in order to improve students' oral and written expression at graduate level. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN552  
Speech and Debate  
Designed to help students improve oral proficiency in Spanish to achieve superior rating on ACTFL scale. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN553  
Stylistics  
Course is designed to improve students' writing skills in terms of organization, choice of vocabulary, persuasive expression, etc. especially as applied to graduate level papers. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN560  
Mexican Culture  
Mexican Culture and Civilization for students attending the UC in Mexico summer study program. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN561  
Intermediate Spanish Grammar 1 in Mexico  
Intermediate Spanish grammar taught in Mexico. Must be taken in conjunction with Spanish 562. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN562  
Intermediate Spanish Conversation I in Mexico  
Intermediate Spanish conversation taught in Mexico. Must be taken in conjunction with Spanish 561. BoK: NA. Credit Level: U, G. Credit Hrs:
Spanish

15SPAN562  
Intermediate Spanish Conversation I in Mexico  
4.00

15SPAN563  
Intermediate Spanish Grammar II in Mexico  
Continuation of Intermediate Spanish grammar taught in Mexico. Must be taken in conjunction with Spanish 564. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN564  
Intermediate Spanish Conversation II in Mexico  
Continuation of Intermediate Spanish conversation taught in Mexico. Must be taken in conjunction with Spanish 563. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN565  
Spanish Phonet. & Phonol.  
Description not available. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15SPAN571  
Advanced Spanish Grammar I in Mexico  
Advanced Spanish Grammar I taught in Mexico. Must be taken in conjunction with Spanish 572. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN572  
Advanced Spanish Conversation I in Mexico  
Advanced Spanish conversation taught in Mexico. Must be taken in conjunction with Spanish 571. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN573  
Advanced Spanish Grammar II in Mexico  
Continuation of Advanced Spanish Grammar taught in Mexico. Must be taken in conjunction with Spanish 573. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN574  
Advanced Spanish Conversation II in Mexico  
Continuation of Advanced Spanish Conversation taught in Mexico. Must be taken in conjunction with Spanish 574. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN575  
Independent Study in Mexico  
Independent study for students participating in the UC in Mexico course. Prereq: 15SPAN105, 15SPAN113. BoK: HP, DC. Credit Level: U, G. Credit Hrs: 1.00-8.00

15SPAN581  
Elementary Conversational Spanish  
For beginners: emphasis on speaking and listening; grammar; culture. Undergraduates, see 111. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN582  
Elementary Conversational Spanish  
For beginners: emphasis on speaking and listening; grammar; culture. Undergraduates, see 111. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN583  
Elementary Conversational Spanish  
For beginners: emphasis on speaking and listening; grammar; culture. Undergraduates, see 111. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN584  
Intermediate Conversational Spanish  
Emphasis on speaking and listening; grammar; culture. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Spanish

15SPAN585  
Intermediate Conversational Spanish  
Emphasis on speaking and listening; grammar; culture. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN586  
Intermediate Conversational Spanish  
Emphasis on speaking and listening; grammar; culture. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

15SPAN590  
Study in Mexico  
9 ug. BoK: NA. Credit Level: U, G. Credit Hrs: 9.00

15SPAN591  
Independent Study  
Previous written approval of instructor and undergraduate adviser required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15SPAN592  
Independent Study  
Previous written approval of instructor and undergraduate adviser required. The second offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15SPAN593  
Independent Study  
Previous written approval of instructor and undergraduate adviser required. The third offering in a three-part course sequence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

15SPAN715  
20th Century Spanish Essay  
A study of 20th century Spain through the works of its most important essayists. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

15SPAN738  
Teaching Latin American and US Latin cultures through their literatures  
This course will first look at the various ways of connecting the study of literature and culture. Students will be asked to individually and collectively formulate theories for doing this, aided by selective readings. They will be asked to put their theories into practice through careful readings of the following texts: Cristobal Colon, selections from "Cartas" y "Diarios"; Sor Juana Ines de la Cruz, Respuesta a Sor Filotea, Esteban Echeverria, El matadero, Juan Carlos Mariategui, selected essays from Siete ensayos de la realidad peruana, Juan Rulfo and Gabriel Garcia Marquez, selected stories: Octavio Paz, selections from El laberinto de la soledad, Richard Rodriguez, selections from Hunger of Memory and Sandra Cisneros's The House of Mango Street. Open to Seniors. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

15SPAN701  
Spanish Language Teaching Practicum  
Practical issues in the Spanish language classroom. Prereq: 15RLL750. Credit Level: G. Credit Hrs: 1.00

15SPAN702  
Spanish Language Teaching Practicum  
Practical issues in the Spanish language classroom. Prereq: 15RLL750. Credit Level: G. Credit Hrs: 1.00

15SPAN703  
Spanish Language Teaching Practicum  
Practical issues in the Spanish language classroom. Prereq: 15RLL750. Credit Level: G. Credit Hrs: 1.00

15SPAN707  
Spanish Language and Culture  
Advanced language course for teachers on Mexico program. Credit Level: G. Credit Hrs: 4.00
Spanish

15SPAN708
Mexican Civilization
Mexican civilization for teachers on program in Mexico. Credit Level: G. Credit Hrs: 4.00

15SPAN709
Advanced Teaching Methods
Spanish teaching methods K-8 for teachers on program in Mexico. Credit Level: G. Credit Hrs: 4.00

15SPAN713
Introduction to Literary Criticism
An historical survey of the major critical approaches to Hispanic literature. Credit Level: G. Credit Hrs: 4.00

15SPAN714
Literary Criticism

15SPAN716
Survey of Medieval Spanish Literature
A survey of Spanish literature of the Middle Ages. Credit Level: G. Credit Hrs: 4.00

15SPAN717
Survey of Golden Age Spanish Literature
A survey of Spanish literature in the Golden Age. Credit Level: G. Credit Hrs: 4.00

15SPAN718
Spanish Golden Age Literature
Students will read Golden Age works in fictional and nonfictional prose, poetry, and theater. Credit Level: G. Credit Hrs: 4.00

15SPAN719
Spanish Golden Age Poetry
A survey of metaphysical poetry of XVI and XVII century Spain with emphasis on textual analysis and sociocultural context. Selections by Garcilaso de la Vega, San Juan de la Cruz, Luis de Leon, Gongora, Quevedo, and Cervantes. Poems are included in two anthologies. Syllabus available in RLL office. Credit Level: G. Credit Hrs: 4.00

15SPAN720
Survey of 18th Century Spanish Literature
A survey of Spanish Literature in the 18th Century Credit Level: G. Credit Hrs: 4.00

15SPAN721
Contemporary Latin American Poetry
Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN722
El Lazarillo
A study of the social and literary issues concerning “La vida de Lazarillo de Tormes.” Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15SPAN723
Survey 20th Century Spanish Literature
A survey of Spanish literature of the 20th Century Credit Level: G. Credit Hrs: 4.00

15SPAN724
Twentieth Century Latin American Poetry
A study of Latin American poetry from the Avant Garde period to the present day. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15SPAN725
Latin American Theatre I
A survey of Latin American dramatic texts from the early 20th century through the 40s (from naturalism through theatrical vanguards). Readings include: Florencio Sánchez, Antonio Acevedo Hernández, Rodolfo Usigli, Xavier Villaurrutia, Roberto Arlt, Samuel Eichelbaum,

15SPAN726
Latin American Theater II
Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN727
20th Century Narrative in Spain before the Civil War
Reading and analysis of important novels by the major narrators of the period: Unamuno, Valle Inclán, Baroja, Perez de Ayala. Credit Level: G. Credit Hrs: 4.00

15SPAN728
20th-Century Spanish Novel after Civil War
Novels by major writers illustrative of the evolution of the genre since 1939. Credit Level: G. Credit Hrs: 4.00

15SPAN729
Post-War Women’s Novels in Spain
Representative novels by major women in Spain since 1939. Included will be works by Rodoreda, Matute, Martin Gaite, Laforet, Quiroga, Montero, Tusquets and others. Credit Level: G. Credit Hrs: 4.00

15SPAN730
Pre-Columbian Literature
Pre-Columbian literature and the Chronicles written by the Spaniards. It is designed not only to give a background for contemporary Latin American literature but to relate to it directly. Credit Level: G. Credit Hrs: 4.00

15SPAN731
Baroque Latin American Literature
The baroque period in Latin America, also called Colonial period, is studied in general not only as a period of itself but as the beginning of Latin American literature. Credit Level: G. Credit Hrs: 4.00

15SPAN732
Spanish Civilization and Culture
SP CIV & CULTURE I Credit Level: G. Credit Hrs: 4.00

15SPAN733
Survey of Latin American Literature I
A survey of Latin American literature from the colonial period to the 20th Century Credit Level: G. Credit Hrs: 4.00

15SPAN734
Survey of Latin American Literature II
A survey of Latin American literature from 1900 to the present. Credit Level: G. Credit Hrs: 4.00

15SPAN735
Survey of the Fantastic in Latin American Literature
A survey of the fantastic element in Latin American literature. Credit Level: G. Credit Hrs: 4.00

15SPAN736
Origins of Latin American Literature
This course studies Indian and Spanish discourses that gave shape to Latin American Literature. Readings: “Popol-Vuh”, “Chilam Balam”, Colon, Inca Garulaso, etc. Credit Level: G. Credit Hrs: 4.00

15SPAN737
Hispanic Poetry From Colony to Modernism
The surge of Latin American poetry during the colonial times until the splendour of the Modernist period, emphasizing language as an important mean of Latin American culture. Credit Level: G. Credit Hrs: 4.00

15SPAN739
Love in Latin American Poetry
The theme of love in Latin American poetry from the modernism till contemporary poets. The course will use a diverse group of critical

H=University Honors course.
Spanish

15SPAN739
Love in Latin American Poetry
approaches. Given in Spanish. Credit Level: G. Credit Hrs: 4.00

15SPAN740
History of the Spanish Language
A historical, phonological and morphological study of Spanish from its Latin and other roots. Credit Level: G. Credit Hrs: 4.00

15SPAN741
Octavio Paz and Latin American Thought
Deals with an understanding of Latin American culture through the critical thinking of Nobel Laureate poet and essayist Octavio Paz. Credit Level: G. Credit Hrs: 4.00

15SPAN742
Latin American Civilization and Culture I
This course deals with the cultural elements that created Latin America, blending the Indian, Black, and white cultures in a diverse mixed continent. History, myth, legends -- all of them intertwined in a cultural and civilization context will be studied. The course will travel through three fundamental periods: Pre-Columbian, Discovery/Conquest, and Colonial. Reading materials will include historical approaches, as well as Indian texts (Popol Vuh), Spanish chronicles (Diaz del Castillo), and Baroque literature (Sor Juana Ines de la Cruz). Credit Level: G. Credit Hrs: 4.00

15SPAN743
Latin America Civilization and Culture II
This course deals with the cultural elements that created Latin America, blending the Indian, Black, and white cultures in a diverse mixed continent. History, myth, legends -- all of them intertwined in a cultural and civilization context will be studied. The course will travel through three fundamental periods: Pre-Columbian, Discovery/Conquest, and Colonial. Reading materials will include historical approaches, as well as Indian texts (Popol Vuh), Spanish chronicles (Diaz del Castillo), and Baroque literature (Sor Juana Ines de la Cruz). Credit Level: G. Credit Hrs: 4.00

15SPAN744
US Latino Literature
An introduction to the literature of Latino writers in the U.S. Credit Level: G. Credit Hrs: 4.00

15SPAN745
Mexican Literature
An introduction to Mexican literature from pre-Colombian to modern times with special emphasis on the 20th century. Credit Level: G. Credit Hrs: 4.00

15SPAN746
Chicana Literature
An historical and theoretical overview of Chicano literature and its place in American literature Credit Level: G. Credit Hrs: 4.00

15SPAN748
Contemporary Spanish Literature
Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN749
Latin American Modernism
Latin American literary movement that revolutionized the entire Spanish literature at the end of the 19th century and beginning of the 20th century. This is a panoramic course, an overview of several poets and writers. Credit Level: G. Credit Hrs: 4.00

15SPAN750
Modernity & Postmodernity
The reformulation and continuation of modernity in contemporary Spanish literature. Credit Level: G. Credit Hrs: 4.00

Spanish

15SPAN752
Medieval Literature and Reader-Response Criticism (formerly Med
Study of principal works of the medieval period in light of major theories in the area of reader-response criticism. Lit I). Credit Level: G. Credit Hrs: 4.00

15SPAN753
Medieval Literature and Feminist Criticism (formerly Med
An application of feminist critical approaches to major works of prose and poetry of medieval period. Lit II). Credit Level: G. Credit Hrs: 4.00

15SPAN754
Medieval Readings
Survey of major works of Medieval Spanish Literature Credit Level: G. Credit Hrs: 4.00

15SPAN755
Spanish Historical Past Through Narration
Representative texts from he 1930's onwards that will address key historical moments in Spanish history of the 20th century. Credit Level: G. Credit Hrs: 4.00

15SPAN756
The Search for Meaning: Spanish Contemporary Theater
The main tendencies in Spanish theater production of the 20th century, its connections with different European movements, and its commentary on the social settings in which they take place. Credit Level: G. Credit Hrs: 4.00

15SPAN757
Wit and Humor in Early Modern Spanish Literature
The kinds, uses of, and implications of, wit, humor, and the burlesque in early modern Spain. Credit Level: G. Credit Hrs: 4.00

15SPAN760
Latin American Short Story
An introduction to the short narrative fiction of Latin America. Credit Level: G. Credit Hrs: 4.00

15SPAN761
Latin American Cinema I
First in a 2-part sequence introducing Latin American Cinema. Credit Level: G. Credit Hrs: 4.00

15SPAN762
Latin American Cinema II
Second in a 2 part sequence introducing Latin American cinema. Credit Level: G. Credit Hrs: 4.00

15SPAN763
Latin American Essay
Seminar in Latin American Essay. Credit Level: G. Credit Hrs: 4.00

15SPAN764
Post Modernism in Latin American Narrative
Modernism and post modernism theories. Credit Level: G. Credit Hrs: 4.00

15SPAN765
Latin American 19th Century Novel
Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN766
19th Century Latin American Literature
4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15SPAN767
20th Century Hispanic Caribbean Literature
Overview of variety of articulations of cultural specificity in 20th century Hispanic Caribbean Literature. Study of the relationship between literary discourse and the formulation of models of identity, be it as the source thereof, its illustration or even its disruptive contradiction. Credit Level: G. Credit Hrs: 4.00

H--University Honors course.
Spanish

15SPAN758
One Hundred Years of Solitude
An in-depth reading and analysis of Gabriel Garcia Marquez's novel from cultural historical and textual/narratological approaches. Given in Spanish. Credit Level: G. Credit Hrs: 4.00

15SPAN777
Poesía Contemporánea Española
The course provides a survey of poetry in Spain in the last two decades of the twentieth century, with special attention to poetry written by women and to new poetic movements. Credit Level: G. Credit Hrs: 4.00

15SPAN783
Special Topics in Spanish Literature
A special seminar devoted to a particular issue germane to Spanish literature. Topics may vary. May be repeated for a total of 12 credits. Credit Level: G. Credit Hrs: 4.00

15SPAN784
Special Topics in Latin American Literature
A special seminar devoted to a particular issue germane to Latin American Literature. Topics may vary. May be repeated for a total of 12.0 credits. Credit Level: G. Credit Hrs: 4.00

15SPAN790
Latin American Theater
Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN792
Contemporary Spanish Theatre (1950-1995)
Consideration of discursive and ideological trends in representative plays of the period. Credit Level: G. Credit Hrs: 4.00

15SPAN794
20th Century Spanish Poetry
4 gr. cr. Credit Level: G. Credit Hrs: 4.00

15SPAN795
18th Century Spanish Literature
A survey of 18th century literature. Credit Level: G. Credit Hrs: 4.00

15SPAN797
19th Century Spanish Novel
Credit Level: G. Credit Hrs: 4.00

15SPAN800
Translation Workshop
A translation workshop devoted to translating one text or the work of one author from Spanish into English Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15SPAN801
Contemporary Latin American Women Novelists
Textual strategies and the development of feminine discourse in the works of selected contemporary Latin American women writers. Readings include works by Maria Luisa Bombal, Griselda Gambaro, Rosario Castellanos, Elena Poniatowska, Isabel Allende and selected others. Credit Level: G. Credit Hrs: 4.00

15SPAN802
Latin American Women Playwrights
Readings of representative performance texts written by Latin American Women during the last twenty years. Credit Level: G. Credit Hrs: 4.00

15SPAN803
Chicana Literature
The rising importance of groups of Latin American descent in the United States is matched by an equally important boom in the literary/artistic accomplishments of these groups. This course will look at their work in poetry, prose, and theater. Credit Level: G. Credit Hrs: 4.00

15SPAN804
Central American Literature
This course will cover the literature of Central America with emphasis

Spanish

15SPAN804
Central American Literature
on the major works, genres, and periods. The students will gain full understanding of the historical conditions of cultural production, the relationship between political situations and literary works, as well as the theoretical implications of the works studied. Credit Level: G. Credit Hrs: 4.00

15SPAN812
Spanish Romanticism
A study of the major Spanish romanticics with principal attention to poetry and theater. Credit Level: G. Credit Hrs: 4.00

15SPAN813
Bakhtin and Latin American Novel
Bakhtin theories of novel and its application to Latin American novel and recent L.A. criticism. Credit Level: G. Credit Hrs: 4.00

15SPAN814
Deconstruction in Latin American Narrative
An approach to deconstructive theories as they apply to LA novels and short stories: LA narrative is deconstruction themselves and their significance in the development of LA literature. Credit Level: G. Credit Hrs: 4.00

15SPAN815
Lacan and Latin American Narrative
An analysis in depth of selected masterpieces in Latin American narrative using psychoanalytic Lacanian as a theoretical frame. Credit Level: G. Credit Hrs: 4.00

15SPAN816
Irony, Parody and Playfulness in Latin American Literature and Cinema
Analysis of the concepts of parody, irony and play as a theoretical point of departure to study contemporary Hispanic literature and film. Credit Level: G. Credit Hrs: 4.00

15SPAN820
Quevedo
Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN821
Quevedo or the Anxiety of Influence I
First part of a two term course thought to give an account of Quevedo's interaction with both the literary field and the field of power in XVIIth century Spain. Credit Level: G. Credit Hrs: 4.00

15SPAN822
Quevedo or the Anxiety of Influence II
Second part of a two term course thought to give an account of Quevedo's interaction with both the literary field and the field of power in XVIIth century Spain. Credit Level: G. Credit Hrs: 4.00

15SPAN823
Borges
Seminar on Jorge Luis Borges' poetry from his first period as an "Ultraist" poet to his last books. This course is complemented with a parallel analysis of his essays on the themes of poetry in general. Credit Level: G. Credit Hrs: 4.00

15SPAN824
Gongora's Soledades
Studies the most difficult poetry ever written in Spanish, "Soledades" by Luis de Gongora (1561-1627). Gongora's poetry presents a triple challenge to the reader with its syntax, neologisms and highly conceptualized metaphors and images. Credit Level: G. Credit Hrs: 4.00

15SPAN825
The Works of Federico Garcia Lorca
Reading and discussion of Garcia Lorca's main works, both poetry & theatre. Reading of bibliography relevant to the subject Credit Level: G. Credit Hrs: 4.00
Spanish

15SPAN830  
Humor in Medieval Spanish Literature  
Explores the medieval concepts of humor, parody and satire and how these differ from contemporary notions about the comic. 3-4 major works will be studied in depth as examples of these concepts. Credit Level: G. Credit Hrs: 4.00

15SPAN850  
The Fantastic in Latin American Narrative  
A study of the fantastic element and its importance in the development of Spanish American narrative. Theoretical framework from Propp, Todorov, Bakhtin, Jackson, and Bessiere. Readings by Lugones, Dario, Quiroga, Biyi Caseres, Borges and Cortazar. Credit Level: G. Credit Hrs: 4.00

15SPAN854  
Latin American Short Story I  
b Credit Level: G. Credit Hrs: 4.00

15SPAN855  
Latin American Short Story II  
A continuation of LA Short Story I. It includes the most contemporary writers, Julio Cortazar, Juan Rulfo, Gabriel Garcia Marquez, Isabel Allende. Credit Level: G. Credit Hrs: 4.00

15SPAN856  
Seminar: Topics in Latin American Literature  
Geared for the graduate student, the course will involve the development of sophisticated research papers on theoretical problems concerning contemporary Latin American literature. Prereq: 15SPAN713. Credit Level: G. Credit Hrs: 4.00

15SPAN857  
Topics in Spanish Literature  
In-depth study of an author, literary period or theme in Spanish literature. Topics will change in relationship to students' needs and faculty research interests. Credit Level: G. Credit Hrs: 4.00

15SPAN858  
Satire  
Study of the theory of satire with analysis of a variety of texts. Credit Level: G. Credit Hrs: 4.00

15SPAN859  
Problems in 20th Century Spanish Poetry  
An approach to 20th century Spanish poetry from a variety of viewpoints and perspectives; the dynamics of poetic movements. Credit Level: G. Credit Hrs: 4.00

15SPAN860  
Research Seminar: Hispanic Poetry & Politics  
An interdisciplinary seminar examining the inter- action of poetry and politics in Spain and Latin America. Repeatable 2 times up to 12 hrs. Credit Level: G. Credit Hrs: 4.00

15SPAN888  
Seminar in Cortazar  
A study of the Argentinean writer Julio Cortazar. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

15SPAN890  
Urban Space in Latin American Narrative  
A study of the representational urban space in Latin American Narrative from both cultural and textual approaches. Readings by Borges, Oretti, Sabato, Cortazar and others. Credit Level: G. Credit Hrs: 4.00

15SPAN891  
Gender Issues in Early Modern Spain  
Shows how certain literary texts (novels and autobiographies) challenge gender, literary and social notions of the time, including cross-dressing and cross-gendering. This is a repeatable course that will focus on different periods during different quarters. Credit Level: G. Credit Hrs: 4.00

Spanish

15SPAN892  
Gender and Desire in Latin American Literature and Cinema  
An analysis of Latin American Literature and cinema from the standpoint of current gender discourse theories and the diverse dynamics of desire and "jouissance." The approach will be both textual and cultural, including narrative texts and films from the last decades. Credit Level: G. Credit Hrs: 4.00-16.00

15SPAN893  
Frontiers in Spanish Literature  
A seminar investigating frontiers, boundaries and margins in Spanish Literature. Credit Level: G. Credit Hrs: 4.00

15SPAN894  
Frontiers in Latin American Literature  
A seminar investigating frontiers, boundaries and margins in Latin American literature. Credit Level: G. Credit Hrs: 4.00

15SPAN895  
Poetics and Politics in Latin American Literature  
A seminar in the interaction, interference, and influence of poetics and politics in Latin American literature: period and genre will vary. Credit Level: G. Credit Hrs: 4.00-8.00

15SPAN896  
Poetics and Politics in Spanish Literature  
A seminar in the interaction, interference of poetics and politics in Spanish Literature: period and genre will vary. Credit Level: G. Credit Hrs: 4.00-8.00

15SPAN897  
Reading Spanish for Graduate Students  
A sequence of three courses designed to prepare graduate students to read technical/professional materials in Spanish with reference to a dictionary. Credit Level: G. Credit Hrs: 4.00

15SPAN898  
Reading Spanish for Graduate Students  
A sequence of three courses designed to prepare graduate students to read technical/professional materials in Spanish with reference to a dictionary. Prereq: 15SPAN897. Credit Level: G. Credit Hrs: 4.00

15SPAN899  
Reading Spanish for Graduate Students  
A sequence of three courses designed to prepare graduate students to read technical/professional materials in Spanish with reference to a dictionary. Prereq: 15SPAN898. Credit Level: G. Credit Hrs: 4.00

15SPAN900  
Graduate Teaching Internship in Spanish  
The Graduate Teaching Internship offers doctoral students an opportunity to teach Spanish majors in upper level courses under the careful direction of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15SPAN901  
Graduate Teaching Internship in Spanish  
The Graduate Teaching Internship offers doctoral students an opportunity to teach Spanish majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15SPAN902  
Graduate Teaching Internship in Spanish  
The Graduate Teaching Internship offers doctoral students an opportunity to teach Spanish majors in upper level courses under the careful supervision of a faculty mentor. Credit Level: G. Credit Hrs: 4.00

15SPAN906  
Independent Study  
Offered ea. qtr. Written approval of instr. and graduate adviser. Credit Level: G. Credit Hrs: 1.00-4.00

15SPAN907  
Independent Study  
Offered each quarter. Written approval of instr. and graduate adviser. The second offering in a three-part course sequence. Credit Level: G.
Spanish

15SPAN907
Independent Study
Credit Hrs: 1.00-4.00

15SPAN908
Independent Study
Offered each quarter. Written approval of instr. and graduate adviser. The third offering in a three-part course sequence. Credit Level: G. Credit Hrs: 1.00-4.00

15SPAN910
Seminar: Galdos
4 cr. Credit Level: G. Credit Hrs: 4.00

15SPAN912
Feminist Theory and Spanish Literature
Application of feminist theory to Spanish literature Credit Level: G. Credit Hrs: 4.00

15SPAN913
Spanish Women Dramatists of the 20th Century (1900-1970)
Major works by Maria Martinez Sierra, Pilar Millan Aseray, Julia Maura, and others. Credit Level: G. Credit Hrs: 4.00

15SPAN914
Contemporary Spanish Woman Dramatists
CONT SP WOM DRAMAT Credit Level: G. Credit Hrs: 4.00

15SPAN919
Professional Development
Topics studies include doctoral exams and the dissertation; scholarly publishing; job searching. For advanced graduate students. Credit Level: G. Credit Hrs: 4.00

15SPAN920
Virgin Mary in Medieval Literature
This course traces the importance of the Virgin Mary as a character in medieval texts, especially collections of Marian miracles such as the Contigas de Santa Maria of Alfonso X and the Milagros de Nuestra Senora of Berceo. Additional readings will focus on medieval theological debates concerning the Virgin and the social implications of her role as a figure of popular devotion. Credit Level: G. Credit Hrs: 4.00

15SPAN921
Themes in Contemporary Latin American Literature
An analysis of current literary theory and critical issues relating to contemporary Latin American literature. Credit Level: G. Credit Hrs: 4.00

15SPAN925
Individual Study Spain
IND STDY SPAIN Credit Level: G. Credit Hrs: 4.00

15SPAN927
Individual Study Spain
IND STDY SPAIN Credit Level: G. Credit Hrs: 4.00

15SPAN928
Individual Study Spain
IND STDY SPAIN Credit Level: G. Credit Hrs: 4.00

15SPAN930
Vallejo Buero and Sastre
A study of two contemporary Spanish playwrights. Credit Level: G. Credit Hrs: 4.00

15SPAN931
Seminar: Cortazar
An in depth study of Julio Cortazar major works - short stories, novels and essays. Credit Level: G. Credit Hrs: 4.00

15SPAN932
Surrealist Movement in America Latina
This course will deal with the theoretic and practical principles of the Surrealist movement and its developing in Latin American poetics. Analyzed included: Neruda, Paz, Molina, Moro, Rojas, Mutis, etc. Credit Level: G. Credit Hrs: 4.00

15SPAN933
Urban Spaces in Latin American Literature and Film
A class-contextual and theoretical examination of urban spaces in Latin American literature and films. Credit Level: G. Credit Hrs: 4.00

15SPAN935
Latin American Poetry
Description not available. Credit Level: G. Credit Hrs: 4.00

15SPAN936
Play and Playfulness
A study of the play element in 20th century Latin American narrative. In-depth analysis of the theories of game and play in literature as a point of departure. Credit Level: G. Credit Hrs: 4.00

15SPAN979
Cervantes' Don Quixote I
An intensive investigation of Cervantes' masterpiece Don Quixote. This is the first of a two quarter sequence. (Second quarter is existing 15span980). Credit Level: G. Credit Hrs: 4.00

15SPAN980
Seminar: Don Quixote
Credit Level: G. Credit Hrs: 4.00

15SPAN981
Graduate Research
Cr. according to the amount of work elected. Offered ea. qtr. Credit Level: G. Credit Hrs: 1.00-18.00

15SPAN987
Master's Thesis Research
Cr. according to the amount of work elected. Credit Level: G. Credit Hrs: 1.00-15.00

15SPAN988
Dissertation Seminar
Students will pursue research for their chosen dissertation topics and then write prospectuses to be approved by their dissertation committee. Credit Level: G. Credit Hrs: 4.00

15SPAN990
Doctoral Dissertation Research
Cr. according to the amount of work elected. Credit Level: G. Credit Hrs: 1.00-18.00

Statistics

15STAT146
Statistics for the Health Sciences
Statistical models and inference applied to problems in the health sciences, with emphasis on the role that statistics plays in medical research. Primarily for students in the College of Nursing and Health. Score of 420+ on the Math Placement Test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT147
Elementary Probability and Statistics
UNDERSTANDING DATA: Distributions and graphs, summarizing data, normal distribution, scatterplots, categorical data, designing samples and experiments, probability. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT147H
Honors Elementary Probability and Statistics I
Honors version of 15 Math 147. Understanding data; Distributions and graphs, summarizing data, normal distribution, scatterplots, categorical data, designing samples and experiments, probability. BoK: QR. Credit

H=University Honors course.
Statistics

15STAT147H Honors Elementary Probability and Statistics I
Level: U. Credit Hrs: 3.00

15STAT148 Elementary Probability and Statistics
PROBABILITY & INERENCE: Sampling distributions, probability, sample proportions and means, binomial distribution, confidence intervals, inference for means, comparing two means. Prereq.: 15-Math-147 with at least C-. Prereq: 15MATH147. Transfer Module. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT148H Honors Elementary Probability and Statistics II
Honors version of 15 Math 148. Understanding inference: Sampling distributions, probability, sample portions and means, binomial distribution, confidence intervals, inference for means, comparing two means, inference for population spread. Prereq.: 15-Math-147 with at least C-. Prereq: 15MATH147. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT149 Elementary Probability and Statistics

15STAT149H Honors Elementary Probability and Statistics III
Honors version of 15MATH149. Topics in inference: Inference for proportions, two-sample inference, two-way tables and Chi Square, one-way analysis of variance (ANOVA), inference for regression. Prereq.: 15-Math-148 with at least C-. Prereq: 15MATH148. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT361 Probability and Statistics I

15STAT362 Probability and Statistics II
Point estimation, confidence intervals for means, proportions, variances, and differences of means and proportions. Hypothesis testing. Simple linear regression, multiple linear regression. Model building. SAS software package may be used. Prereq.: 15-Math-361 with at least C-. Prereq: 15MATH361. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT363 Probability and Statistics III
Analysis of variance and experimental design. Categorical data analysis, chi-square tests, reliability and quality control. SAS software package may be used. Prereq.: 15-Math-362 with at least C-. Prereq: 15MATH362. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT366 Engineering Statistics
Descriptive statistics, probability, binomial, Poisson, and normal distributions. Confidence intervals, and hypothesis testing, regression analysis. Prereq.: 15-Math-253 with at least C-. Prereq: 15MATH253. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT521 Mathematical Statistics
Random variables, probability distribution functions, mathematical expectation, Chebyshev's inequality, marginal and conditional distributions, independence, binomial, Poisson, Gamma, and normal distribution. Prereq.: Math 264 and 361. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT522 Mathematical Statistics
Sampling distributions: transformation of variables, order statistics, moment generating functions, distribution of sample mean and sample variance, stochastic convergence, central limit theorem, maximum likelihood estimation, Bayesian - estimation, confidence intervals. Prereq: 15MATH521. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT523 Mathematical Statistics
Hypothesis testing, uniformly most powerful and likelihood ratio tests, sufficient statistics, Rao -Blackwell Theorem, exponential densities, Rao - Cramer inequality, sequential and chi-square tests. Prereq: 15MATH522. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT531 Applied Statistical Inference
Quick review of probability distributions. Inferences about population means and variance. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT532 Applied Regression Analysis
Correlation, multiple regression, one-way ANOVA, and multiple comparisons. Projects using SAS packages. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT533 Analysis of Variance
ANOVA for standard experimental designs and unbalanced designs, repeated measures, and analysis of covariance. Prereq: 15MATH532. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT534 SAS Programming
Various aspects of the SAS statistical package from a programming language perspective. Emphasis on SAS data steps, including the infile, input, merge, set, do-loop, if-then commands, writing macros, matrix computations using PROC IML and PROC INSIIGHT. Concentration is on programming issues rather than statistical procedures. Prereq: 15MATH533, 15MATH532, 15MATH522. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT535 Applied Statistics Using S-Plus
To obtain and enhance statistical analysis and programming skills using S-Plus. Various modern techniques in linear statistical modeling, writing statistical functions, and creating graphs. Prereq: 15MATH361, 15MATH362, 15MATH363, 15MATH531, 15MATH532. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT571 Time Series
Estimation and use of autocorrelation function (ACF) and partial autocorrelation function (PACF), linear stationary models, including autoregressive (AR), moving average (MA), and ARIMA models; model identification, estimation, and forecasting; spectrum and periodogram of stationary processes. Techniques illustrating computer software on real time series data. Prereq: 15MATH532, 15MATH533. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

15STAT572 Reliability-Survival Analysis
Applied life data analysis, including reliability analysis (engineering) and survival analysis (medical and actuarial.) Survival and hazard functions, life table, product limits estimates, exponential, Weibull and other parametric models. Censored data, co-variate models, maximum likelihood methods. Examples given and analyzed using PROC LIFETEST, LIFEREG, PHGLM, etc in SAS. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
Statistics

15STAT632
Reliability-Survival Analysis
Hrs: 3.00

15STAT753
Applied Bayesian Analysis
Basic principles behind Bayesian inference and the concepts of prior and posterior distributions. Bayesian approach to statistical inference (estimation and test of hypotheses.) Differences and similarities between Bayesian adn classical (frequentist) approaches featuring selected topics and examples requiring approximate or computer based numerical calculations of Bayesian answers. Prereq: 15MATH522. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT7574
Nonparametric Statistics
One- and two-sample location problems, Wilcoxon statistics, rank tests, one- and two-way layout, tests for independence, linear rank statistics, Kolmogorov test. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT575
Robust Statistics
Methods of data analysis that are used when a sample is not assumed to have come from a normal distribution. Classical methods of inference and estimation; theoretical, applied, and computational aspects of robustness; Monte Carlo adaptive estimation, jackknifing, and boot strapping. Prereq: 15MATH536. BoK: QR. Credit Level: U. Credit Hrs: 4.00

15STAT576
Topics in Applied Statistics
Selected topics in applied statistics, depending on the area of specialty of the instructor. BoK: QR. Credit Level: U. Credit Hrs: 3.00

15STAT613
Linear Models and Multivariate Analysis
Review of matrix algebra, multivariate normal distribution; linear models including multiple regression, analysis of variance, analysis of covariance and repeated measurements. Selected topics from experimental design and multivariate analysis. Prereq: 15MATH531, 15MATH536. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15STAT614
Linear Models and Multivariate Analysis
Multivariate normal distribution. General linear models. Analysis of experiments. The second offering in a three-part course sequence. Prereq.: Math. 352 or equiv.; 362 or 523 or 708. Prereq: 15MATH613. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15STAT615
Linear Models and Multivariate Analysis
Multivariate normal distribution. General linear models. Analysis of experiments. The third part in a three-part course sequence. Prereq.: Math 352 or equiv.; 362 or 523 or 708. Prereq: 15MATH614. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15STAT631
Advanced Theory of Statistics I
Review of probability theory; distribution theory, sufficient statistics, maximum likelihood estimators, large sample theory, confidence intervals and testing. BoK: NA. Credit Level: U. Credit Hrs: 4.00

15STAT632
Advanced Theory of Statistics II
Elements of decision theory, unbiased estimation, Bayesian analysis, minimax estimators, invariant estimator, Bayes and minimax tests, likelihood ratio tests. Prereq: 15MATH631. BoK: NA. Credit Level: U. Credit Hrs: 4.00

15STAT633
Advanced Theory of Statistics III
Uniformly most powerful tests, general linear hypotheses, multiple decision problems, sequential analysis, density estimation, empirical processes. Prereq: 15MATH632. BoK: NA. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
An introduction to Swahili language and culture. First quarter in the extended 6-sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

Extended Basic Swahili 2
An introduction to Swahili language and culture. Second quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM111. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

Extended Basic Swahili 3
An introduction to Swahili language and culture. Third quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM112. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

Extended Basic Swahili 4
An introduction to Swahili language and culture. Fourth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM113. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

Extended Basic Swahili 5
An introduction to Swahili language and culture. Fifth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM114. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

Extended Basic Swahili 6
An introduction to Swahili language and culture. Sixth quarter in the extended 6-quarter sequence that fulfills the A&S language requirement. Prereq: 15AFAM115. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

Introduction to Swahili language and culture. Seventh quarter in the extended 6-sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

Introduction to Swahili language and culture. Eighth quarter in the extended 6-sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

Introduction to Swahili language and culture. Ninth quarter in the extended 6-sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

Introduction to Swahili language and culture. Tenth quarter in the extended 6-sequence that fulfills the A&S language requirement. BoK: HU., DC. Credit Level: U. Credit Hrs: 3.00

Introduction to second language acquisition theory. Credit Level: G. Credit Hrs: 4.00

Introduction to second language acquisition theory. Credit Level: G. Credit Hrs: 4.00

Introduction to second language acquisition theory. Credit Level: G. Credit Hrs: 4.00

This course will cover five topics in the Philosophy of Science: scientific explanation, hypothesis testing, theory relations across scientific levels, and the nature of scientific truth. Credit Level: G. Credit Hrs: 4.00

This course will investigate the interrelations among the physical, biological, and social sciences, with an emphasis on understanding forces, energy, motions and equilibrium. Credit Level: G. Credit Hrs: 4.00

This course will examine the physics and chemistry of the world around us with an emphasis on understanding forces, energy, motions and equilibrium. Credit Level: G. Credit Hrs: 4.00

This course will begin with a brief description of cosmology, galaxies, and stellar life cycles, and investigate the Earth’s formation, differentiation, and evolution. Credit Level: G. Credit Hrs: 4.00

This course will cover five topics in the Philosophy of Science: scientific explanation, hypothesis testing, theory relations across scientific levels, and the nature of scientific truth. Credit Level: G. Credit Hrs: 4.00
**Teaching Science**

15TSCI665
*Philosophy of Science*
Science in value and policy decisions, and the sociology of scientific knowledge. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

15TSCI671
*Internship I*
This course will allow students to work on an independent research project, and by doing so, develop hands-on experience in scientific work, technology, and thinking. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 6.00

15TSCI672
*Internship II*
This course will allow students to work on an independent research project, and by doing so, develop hands-on experience in scientific work, technology, and thinking. Perm of Instructor. BoK: NA. Credit Level: G, U. Credit Hrs: 6.00

**Women’s Studies**

15WMST150
*"Having It All:” Using the Law to Resolve the Work/Family Conflict*
Explores both legal and gender issues in examining how our society structures the relationship of paid work to work in the family. Offers exposure to prelaw and women's studies, while also providing a practical framework to guide career/family choices. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST160
*Revolutionary Women: Wollstonecraft and France’s Last Queen*
Mary Wollstonecraft and Marie Antoinette led very different and controversial lives in a Europe under radical change. The British feminist historian and Habsburg Queen of France sought freedom and wrote their own roles with significant social and political impacts on a larger world. BoK: HU. Credit Level: U. Credit Hrs: 3.00

15WMST201
*Barriers to Equality*
An examination of age, gender, sexual orientation and race as major influences on the structure of interaction and on access to social opportunity. A comparative approach will be used where the U.S. and other societies are explored. Prereq: 30SOC175, 30SOC176. BoK: SS. Credit Level: U. Credit Hrs: 3.00

15WMST204
*Introduction to Black Gender Studies*
Introduction to gender and gender oppression as major organizing principles in African-American social institutions, culture, and politics. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST241
*Introduction to Women’s Studies I: Feminist Perspectives*
Interdisciplinary survey introduction to women’s studies and women-related issues in society from a feminist perspective. Emphasis will be placed on the diversity of women's experience. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15WMST245
*Introductory Women, Gender and Race Studies*
Variable topics in the area of women of color studies offered at the introductory level. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST250
*Introduction to Black Women’s Studies*
The purpose of this course is to familiarize the student with an intersectional analysis of race, class, gender, sexual orientation, while focusing on some of the experiences of Black women in the United States from the Civil War Era to the present. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST255
*Introductory Women, Gender, and Legal Studies*
Variable topics in area of feminist legal studies offered at the introductory level. Prereq: 15WMST241. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15WMST265
*Introductory Women, Gender, and Sexuality Studies*
Variable topics in the area of sexuality studies at the introductory level. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST275
*Introductory Women, Gender, and Cultural Studies*
Variable topics offered at the introductory level in the area of feminist cultural studies, which critically examines gendered texts and images, including those from popular culture. Prereq: 15WMST241. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15WMST276
*Feminism and Popular Culture*
Analyzes popular culture as both a source of anti-feminism and a site of feminist resistance for social change BoK: SE., DC. Credit Level: U. Credit Hrs: 3.00

15WMST280
*Women in Native American Literature*
Designed to give students an understanding of the Native American Culture and the role of women within the society, both traditionally and contemporarily BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST285
*Introductory Women, Gender, and Science Studies*
Variable topics in the area of feminist science studies at the introductory level. Prereq: 15WMST241. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST289
*Our Lives: Twentieth-Century Women’s Autobiographies*
Through five novels and a collection of diaries, this course studies the lives and achievements of well-known 20th century women from their teen years through old age. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST295
*Introductory Women, Gender and Political Studies*
Variable topics in the area of feminist political studies offered at the introductory level. Prereq: 15WMST241. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15WMST298
*Outrageous Writings by Women*
Women writers are attracted to certain literary forms scorned by conventional academic critics -- Brown, Rubyfruit Jungle; Wittig, Les Guerillier; Didion, Play It As It Lays; LeGuin, The Dispossessed; poetry by Judy Grahn; journals by May Sarton, Anais Nin. Offered alt yrs. Transfer Module. BoK: LT, DC. Credit Level: U. Credit Hrs: 3.00

15WMST301
*Current Issues in Women’s Studies*
Selected readings chosen to highlight topical issues or emerging scholarship in Women’s Studies. Individual topics are described in listings available from the Center for Women’s Studies each term. Prereq.: 15-WMST241. BoK: DC,. SE. Credit Level: U. Credit Hrs: 3.00

15WMST302
*Women and Activism*
An investigation of how women, past and present, influence and engage in social justice activism. Includes service/experiential learning assignments in the community. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST304
*Gender, Race, Class & Sexuality*
This course will employ social science readings and selected literature and film to provide greater understanding of the ways in which innate gender differences and gender stereotypes influence male-female

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**H=University Honors course.**

**BoK (Breadth of Knowledge) Coding.**

- DC: Diversity & Culture.
- EC: English composition.
- FA: Fine Arts.
- HP: Historical Perspectives.
- HU: Humanities.
- LT: Literature.
- NS: Natural Sciences.
- QR: Quantitative Reasoning.
- SE: Social & Ethical Issues.
- SS: Social Sciences.
Women's Studies

15WMST304
Gender, Race, Class & Sexuality
communication and relationships. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15WMST305
Black Women in U.S. Society
An examination of how systems of race, class, and gender shape the experiences of African-American women. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST310
Feminism and the Future
This course explores the possibilities for women's futures in diverse cultures. Prereq: 30ENGL103. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15WMST311
Masculinities Studies
Explores multiple social constructions of masculinity produced through varying cultural social, political, and economic processes. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST312
Psychology of Women
Examination of various theories of the psychology of women, focusing on women's sense of self in relationship to their culture, other women, and themselves. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15WMST313
Feminism, Gender, and Psychology
Examines feminist approaches to analyzing women and gender from social psychological perspectives. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST314
Women and Social Action
A telecourse designed to address the impact of gender stereotypes and how they intersect with other social systems such as age, class, ethnicity, race, and religion. Prereq: 30SOC175. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

15WMST315
Women and Aging
Examines the economics and politics of aging women, as well as their art, writing, and spirituality. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

15WMST316
Feminism and Spirituality
Examines the development of feminist spiritual alternatives to patriarchal religions. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST317
Women and Religion
Concerns of women that are conditioned by interpretations found to have roots in religious sources are studied through literary form, historical context, and cultural factors. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST318
Women in American History: 1607-1820
Historical analysis of the roles of native, African and European women in early American society. It will examine women's experiences in the 17th and 18th Centuries and the impact of the American Revolution on women's lives. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15WMST319
Women in American History: 1820-1920
Historical analysis of the role of the Nineteenth Century Woman and gain of the vote for women. Transfer Module. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15WMST321
Witchcraft and Women
A serious examination of the concept of magic and the role of witchcraft in history from antiquity to the present; an examination of primary and secondary sources on the phenomenon and mechanism of magical thought, and its impact upon persons and societies. Prereq: 15WMST241. BoK: HP, DC. Credit Level: U. Credit Hrs: 3.00

15WMST322
Women and Men, Sex and Gender in Antiquity
An overview of the textual and material evidence pertaining to women's lives in four ancient cultures. Students synthesize and evaluate this information, weighing the limitations of different types of evidence and considering any possible gender biases of previous scholars. Perm of Instructor. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

15WMST324
Science Fiction and Gender
A new strain of science fiction has emerged which is more concerned with the social and mythical aspects of heroism, and more thoroughly radical in its extrapolations. Focus will be on well-written works which raise questions of the identity of women and men. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST325
Themes in American Literature: Gender Roles
American authors' treatments of the theme of male-female gender stereotyping. Prereq: 15ENGL103. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST326
Women's Voices in American Literature
A study of women writers' commentary on the American Experience from the colonial period to the present. Prereq: 17ENGL103. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST327
Coming of Age in Fiction by Women
Course will examine the process of growing up female as it is portrayed in fiction by women. Offered alt. yrs. BoK: LT., DC. Credit Level: U. Credit Hrs: 3.00

15WMST328
Contemporary Short Story
Twentieth century thought and expression in the short story. Prereq: 17ENGL103. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST330
Black Women Writers
A study of the fiction of selected Black women writers from Zora Neale Hurston to Toni Morrison. Special emphasis on developing concepts of Black womanhood. Transfer Module. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST342
Gender in Film
This course will provide an overview of fundamental neurobiological differences between the sexes and their portrayals in representative film and literature. It will explore concerns about the objectivity and application of brain difference research and should serve as a basis for more in-depth study of gender issues in science and humanities. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST345
Intermediate Women, Gender and Race Studies
Variable topics in the area of women of color studies offered at the intermediate level. Prereq: 15WMST241. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST350
Women and the Law
An historical and comparative study of the effect of law on women, the development of women's legal rights in the U.S. and the changes in law
Women's Studies

15WMST350
Women and the Law
which resulted from the women's movement. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST355
Intermediate Women, Gender, and Legal Studies
Variable topics in area of feminist legal studies offered at the intermediate level. Prereq: 15WMST241. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15WMST357
Women and Business in Feminist Perspective
Analyzes women's changing roles and continued under-representation in as well as contributions to contemporary business and corporate structures and practices from feminist perspectives. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST360
Lesbian, Gay, Bisexual and Transgender Studies
Examines issues facing LGBT gay & lesbian communities as well as theories that help us analyze them. BoK: DC. Credit Level: U. Credit Hrs: 3.00

15WMST361
Lesbian and Gay Literature
An exploration of important themes (e.g., childhood and growing up, coming out and finding community, families, oppression and resistance, bisexuality, relationships and friendships, AIDS and aging) in lesbian and gay literature using literary materials as the primary focus (novels, poetry, plays). Prereq: 17ENGL103. BoK: LT. Credit Level: U. Credit Hrs: 3.00

15WMST365
Intermediate Women, Gender, and Sexuality Studies
Variable topics in the area of sexuality studies at the intermediate level. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST370
Women in Science
Exploration of how women work in the sciences, how they are perceived by the sciences, and how they are changing the sciences. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST371
Women's Health in Feminist Perspective
Examines women's bodies and health through feminist perspectives and the development of feminist health movements domestically and internationally. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST375
Intermediate Women, Gender, and Cultural Studies
Variable topics in the area of feminist cultural studies offered at an intermediate level. Prereq: 15WMST241. BoK: DC, HU. Credit Level: U. Credit Hrs: 3.00

15WMST376
Feminisms and Art
Explores feminist artistic production and critique for social change examines differing feminist artistic movements Prereq: 15WMST241, 15WMST376. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST380
Feminist Critical Readings
In-depth readings of classic feminist works. This course is designed to stand between "Intro to Women's Studies" and "Feminist Theory" and will focus on developing students' critical reading skills as well as on works by classic feminist thinkers. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST385
Intermediate Women, Gender, and Science Studies
Variable topics in the area of feminist science studies at the intermediate level. Prereq: 15WMST241. BoK: SE. Credit Level: U. Credit Hrs: 3.00

Women's Studies

15WMST385
Intermediate Women, Gender, and Science Studies
Variable topics in the area of feminist science studies at the intermediate level. Prereq: 15WMST241. BoK: SE. Credit Level: U. Credit Hrs: 3.00

15WMST395
Intermediate Women, Gender, and Political Studies
Variable topics in the area of feminist political studies offered at the intermediate level. Prereq: 15WMST241. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

15WMST401
Special Topics in Women's Studies
Special topics in the study of women and gender. Topics will vary. Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 3.00

15WMST405
Independent Study in Women's Studies
For independent study of special topics in Women's Studies under faculty supervision. Permission of instructor required Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15WMST406
Independent Study in Women's Studies
For independent study of special topics in Women's Studies under faculty supervision. Permission of instructor required Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15WMST407
Independent Study in Women's Studies
For independent study of special topics in Women's Studies under faculty supervision. Permission of instructor required Prereq: 15WMST241, 15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

15WMST441
Child Sexual Violence in Contemporary Literature and Film
Examines contemporary treatments, through literature, film, and other media, of childhood sexual violence. It will cover social, cultural, and psychological issues related to sexual violence against children through feminist perspectives. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST443
Global Sexualities
Examines differing social constructions of sexual identities in cross-cultural perspective to investigate their implications for theorizing sexuality and sexual power relations and developing transnational struggles against discrimination based on sexual orientation. Prereq: 15WMST360. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

15WMST445
Advanced Women, Gender and Race Studies
Variable topics in the area of women of color studies offered at the advanced level. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

15WMST446
African Women: Literature, Culture, History
The fiction of African women reveals hybrid oral and literate aesthetics and differences in the political and economic history and culture situations of women in their respective countries, traditional, modern, and neo-colonial histories, raising pertinent issues of polygamy, feminism, womanism, political power, childbearing and rearing, guerrilla warfare, and AIDS. BoK: DC, LT. Credit Level: U. Credit Hrs: 3.00

15WMST447
Ethnic Women: Literature, Culture, History
Ethnic women, usually facing the double oppression of racism and misogyny, create literature and theory expressing not only this common experience but also, revealing the contrasts among their different ethnic experiences but also, revealing the contrasts among their different ethnic

H=University Honors course.
### Women's Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>15WMST447</td>
<td>Ethnic Women: Literature, Culture, History</td>
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<tr>
<td></td>
<td>Variable topics in the area of sexuality studies at the advanced level.</td>
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<td>BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST448</td>
<td>Native American Women: Literature, Culture, History</td>
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<tr>
<td></td>
<td>Complementary stories of Native women from different cultures and their</td>
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<td>oral traditions in conversation with current feminist, womanist,</td>
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<td></td>
<td>postcolonial and postmodern theoretical approaches in culture. BoK: DC,</td>
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<td>LT. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST449</td>
<td>&quot;Third World&quot; Women: Literature, Culture, History</td>
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<td></td>
<td>Women writers from Egypt, Aboriginal Australia, sub-Saharan Africa, and the</td>
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<td>borderlands of the U.S. Integrate tradition, colonialism, neo-colonialism,</td>
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<td>feminism, Islam, and Christianity. We will study the hybrid nature of these</td>
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<td>works and read them through contemporary theoretical approaches that insist</td>
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<td>on engaging the disputed term &quot;third world&quot;. BoK: DC., LT. Credit Level: U.</td>
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<td>Credit Hrs: 3.00</td>
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<tr>
<td>15WMST450</td>
<td>Comparative Black Feminisms</td>
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<tr>
<td></td>
<td>Examines roles and positionalities of black women within the African</td>
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<td>diaspora (Continental, British, Caribbean, North American). Takes</td>
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<td>comparative and historical approach to study of political issues such as</td>
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<td>reproductive equity and health, state policy on women, religion,</td>
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<td></td>
<td>sexuality and migration. Prereq: 15WMST241, 15WMST380. BoK: DC, SE. Credit</td>
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<td>Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST455</td>
<td>Advanced Women, Gender, and Legal Studies</td>
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<td></td>
<td>Variable topics in area of feminist legal studies offered at the advanced</td>
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<td>Hrs: 3.00</td>
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<tr>
<td>15WMST456</td>
<td>Women's Human Rights</td>
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<td>Examines the development of women's human rights struggles, norms,</td>
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<td>conventions, and laws in comparative and international perspective.</td>
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<td>Prereq: 15WMST350. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST460</td>
<td>Seminar in Lesbian, Gay, Bisexual and Transgender Studies</td>
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<td></td>
<td>An advanced course in LGBT studies that analyzes an array of theories</td>
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<td>and perspectives. Prereq: 15WMST360. BoK: DC. Credit Level: U. Credit Hrs:</td>
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<tr>
<td>15WMST461</td>
<td>Feminist Theory: Global</td>
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<td></td>
<td>The second in a three-quarter sequence, this seminar examines feminist</td>
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<td>theories in national, transnational, and global perspective. Prereq:</td>
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<td>15WMST241. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST462</td>
<td>Lesbian/Queer Theory</td>
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<td></td>
<td>Explores contemporary sexuality theories from lesbian and queer</td>
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<td>perspectives which destabilize assumptions about relationships among</td>
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<td>chromosomal sex, gender, and sexual desire and develop new thinking about</td>
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<td>sexual identities and social critiques and movements arising from</td>
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<td></td>
<td>them. Prereq: 15WMST360. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST463</td>
<td>Lesbian Literature and Psychology</td>
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<tr>
<td></td>
<td>Study of the definition of lesbianism as expressed by psychologists and</td>
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<td>writers; study of the complex relationship between images of mainstream</td>
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<td>psychological theory and lesbian fiction. Prereq: 15WMST360. BoK: DC, LT.</td>
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<td></td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST465</td>
<td>Advanced Women, Gender, and Sexuality Studies</td>
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<tr>
<td></td>
<td>Variable topics in the area of sexuality studies at the advanced level.</td>
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</tbody>
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### McMicken College of Arts and Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>15WMST465</td>
<td>Advanced Women, Gender, and Sexuality Studies</td>
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<tr>
<td></td>
<td>Prereq: 15WMST241, 15WMST360. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST466</td>
<td>Gender, Sexuality and Culture</td>
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<tr>
<td></td>
<td>Focuses on the political, cultural, familial production of sexualities and</td>
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<td>on the complex relationships between gender and sexuality, including the way</td>
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<td>in which gender and sex regulate identity and how that regulation might be</td>
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<td>Credit Hrs: 3.00</td>
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<tr>
<td>15WMST475</td>
<td>Advanced Women, Gender, and Cultural Studies</td>
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<td></td>
<td>Variable topics in the area of feminist cultural studies offered at the</td>
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<td>Credit Hrs: 3.00</td>
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<tr>
<td>15WMST480</td>
<td>Feminist Theory</td>
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<td></td>
<td>An investigation of central texts in feminist thought. Prereq: 15WMST241,</td>
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<td>15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST480H</td>
<td>Feminist Theory Honor</td>
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<tr>
<td></td>
<td>An investigation of central texts in feminist thought. Prereq: 15WMST241,</td>
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<td></td>
<td>15WMST380. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>15WMST485</td>
<td>Advanced Women, Gender, and Science Studies</td>
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<tr>
<td></td>
<td>Variable topics in the area of feminist science studies at the advanced</td>
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<tr>
<td></td>
<td>level. Prereq: 15WMST241, 15WMST370. BoK: SE. Credit Level: U. Credit Hrs:</td>
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<td>3.00</td>
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<tr>
<td>15WMST490</td>
<td>Internship in Women's Studies</td>
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<tr>
<td></td>
<td>Supervised experiences in community organizations active on issues of gender</td>
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<td>and social justice. Permission of instructor needed. BoK: SE. Credit Level:</td>
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<td></td>
<td>U. Credit Hrs: 1.00-9.00</td>
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<tr>
<td>15WMST495</td>
<td>Advanced Women, Gender, and Political Studies</td>
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<tr>
<td></td>
<td>Variable topics in the area of feminist political studies offered at the</td>
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<tr>
<td></td>
<td>advanced level. Prereq: 15WMST241, 15WMST480. BoK: SS. Credit Level: U.</td>
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<td>Credit Hrs: 3.00</td>
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<tr>
<td>15WMST496</td>
<td>Gender and Development</td>
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<tr>
<td></td>
<td>Critiques through a gender-sensitive lens the main strands of political</td>
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<td>and economic thought that have informed international socio-economic</td>
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<td>development policy and challenges the meanings of and institutional</td>
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<td>formations and practices associated with development through feminist</td>
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<td></td>
<td>perspectives. Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs:</td>
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<tr>
<td>15WMST497</td>
<td>Women, Gender, and Social Movements</td>
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<tr>
<td></td>
<td>Explores feminist perspectives on and women's participation in select</td>
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<tr>
<td></td>
<td>social movements at local, national, and/or transnational levels.</td>
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<td></td>
<td>Comparatively theorizes women's activism and strategies for social change.</td>
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<tr>
<td></td>
<td>Prereq: 15WMST241. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
</tbody>
</table>

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**BoK (Breadth of Knowledge) Coding.**

Women's Studies

15WMST531
Individual Work in Women's Studies
Individual work in Women's Studies. For completing independent capstone research paper, including undergraduate major paper, under faculty supervision. Permission of instructor BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15WMST532
Individual Work in Women's Studies
Individual work in Women's Studies. For completing independent capstone research paper, including undergraduate major paper, under faculty supervision. Permission of instructor required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15WMST533
Individual Work in Women's Studies
Individual work in Women's Studies. For completing independent capstone research paper, including undergraduate major paper, under faculty supervision. Permission of instructor required. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

15WMST580
Feminist Methodologies
An examination of the contours and practices of feminist research, focusing on epistemological and methodological questions in feminism. A focus on various feminist cultural, political, and science studies methods thru feminist research exercises in preparation for independent research projects. Prereq: 15WMST480. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST588
Latina Feminisms
Explores the development of women's movement in Latin America and Latina feminist movements across the Americas. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST589
Feminisms in North America
A comparative examination of feminist theories and movements in Canada, Mexico, and the US as well as examples of cross-border organizing on select issues to investigate women's human rights and citizenships, and identities in a continental context. Prereq: 15WMST241. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

15WMST590
Women's Studies Study Abroad
Designed for eligible advanced undergraduate and graduate students who have completed requisite Women's Studies courses (and, where applicable, foreign language proficiency courses or tests) and been accepted to study Women's Studies abroad in Women's Studies partner institutions currently in Canada or Mexico or other countries where partnerships may be formed in the future. As exchange students, students accepted to study abroad register for the number of credits for this course that are equivalent to the credit amounts of the courses they take abroad for a given term. Interested students must see the Department of Women's Studies for application, requirements, and advisement well in advance (at least six months prior to study abroad) to pursue this option. See Department of Women's Studies for requirements and application. Perm of Department. BoK: DC, SE. Credit Level: U, G. Credit Hrs: 3.00-18.00

15WMST641
Child Sexual Violence in Contemporary Literature and Film Graduate
Graduate course examines contemporary treatments, through literature, film, and other media of childhood sexual violence. It will cover social, cultural, and psychological issues related to sexual violence against children through feminist perspectives. BoK: DC, SE. Credit Level: G, U. Credit Hrs: 4.00

15WMST643
Global Sexualities Graduate
Examines differing social constructions of sexual identities in cross-
Women's Studies

15WMST696
Gender and Development Graduate
international socio-economic development policy and challenges the meanings of and institutional formations and practices associated with development through feminist perspectives. BoK: DC., SE. Credit Level: G. U. Credit Hrs: 4.00

15WMST697
Women, Gender and Social Movements Graduate
Graduate course explores feminists perspectives on women's participation in select social movements at local, national, and/or transnational levels. Comparatively theorizes women's activism and strategies for social change. BoK: DC., SE. Credit Level: G. U. Credit Hrs: 4.00

15WMST646
African Women: Literature, Culture, History
The fiction of African women reveals hybrid oral and literate aesthetics and differences in the political and economic history and culture of situations of women in their respective countries; traditional, modern, and neo-colonial histories, raising pertinent issues of polygamy, feminism, womanism, political power, childbearing and rearing guerilla warfare, and AIDS. Credit Level: G. Credit Hrs: 4.00

15WMST647
Ethnic Women: Literature, Culture, History
Ethnic women, usually facing the double oppression of racism and misogyny, create literature and theory expressing not only this common experience but also, revealing the contrasts among their different ethnic communities in the U.S. through the lens of sex and gender and experimental narrative. Credit Level: G. Credit Hrs: 4.00

15WMST648
Native American Women: Literature, Culture, History
Complementary studies of native women from different cultures and areas of US create environmental narratives grounded in their cultures' oral traditions in conversation with current feminist womanist postcolonial and post modern theoretical approaches to culture. Credit Level: G. Credit Hrs: 4.00

15WMST649
"Third World" Women: Literature, Culture, History
Women writers from Egypt, Aboriginal Australia, Sub-Saharan African, and the borderlands of US interrogate tradition, colonialism, neo-colonialism, feminism, Islam and Christianity will be studied The hybrid nature of these works and read them through contemporary theoretical approaches that insist on engaging the disputed term "Third World". Credit Level: G. Credit Hrs: 4.00

15WMST663
Lesbian Literature and Psychology
Study of the definition of lesbianism as expressed by psychologists and writers; study of the complex relationship between images of mainstream psychological theory and lesbian fiction. Credit Level: G. Credit Hrs: 4.00

15WMST666
Gender, Sexuality, and Culture
This course focuses on the political, cultural, familial production of sexualities and on the complex relations between gender and sexuality, including the ways in which gender and sex regulate identity and how that regulation might be contested. Credit Level: G. Credit Hrs: 4.00

15WMST700
Introduction to Graduate Women's Studies
A graduate-level introduction to the history and field of women's studies. Credit Level: G. Credit Hrs: 4.00

15WMST701
Pro-Seminar: Introduction to Graduate Study in Women's Studies
First-year M.A. students in Women's Studies will be introduced to the structural and theoretical foundations of graduate work in Women's Studies. Credit Level: G. Credit Hrs: 1.00

Women's Studies

15WMST701
Pro-Seminar: Introduction to Graduate Study in Women's Studies
First-year M.A. students in Women's Studies will be introduced to the structural and theoretical foundations of graduate work in Women's Studies. Credit Level: G. Credit Hrs: 1.00

15WMST702
Proseminar: Feminist Issues
For participation in special professional development colloquia on select feminist issues offered during the Winter term for Women's Studies graduate students. Credit Level: G. Credit Hrs: 1.00

15WMST703
Pro-Seminar: Introduction to Research Projects in Women's Studies
First-year M.A. students in Women's Studies begin background study in preparation for their individual research projects. Credit Level: G. Credit Hrs: 1.00

15WMST710
Women's Studies Teaching Practicum
WS TEACHING PRACTM Credit Level: G. Credit Hrs: 1.00-4.00

15WMST721
Seminar on Race, Gender and Class
A survey and critical examination of the intersections of race, gender and social class as systems of inequality. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 4.00

15WMST722
Seminar on Race, Gender and Nationalism
A critical examination of the intersections of race, gender and nationalism as systems of inequality. Credit Level: G. Credit Hrs: 4.00

15WMST723
Seminar on Race, Gender and Sexuality
A critical examination of the intersections of race, gender and sexuality as systems of inequality. Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 4.00

15WMST725
Foundations of Feminist Theory
This seminar examines the foundations of feminist theory. Graduate Status Required. Credit Level: G. Credit Hrs: 4.00

15WMST735
Feminist Theory: Race, Class, Nation
As part of the graduate feminist theory sequence, analyzes feminist theories of intersectional identity constructions based on the interstructuring of gender, race, class, and nation identifications and examines the production of the very categories of gender, race, class and nation and how they are co-implicated in sustaining power relations. Credit Level: G. Credit Hrs: 4.00

15WMST742
Colloquium on Feminist Scholarship, Social Sciences
Highlights of feminist scholarship which counters the traditional view of women in the social sciences, looks at the biases in traditional social science research, and challenges these assumptions and methods with new feminist constructions. Credit Level: G. Credit Hrs: 4.00

15WMST745
Feminist Theory: Contemporary Issues
This seminar explores contemporary issues in feminist theory. Graduate Status Required. Credit Level: G. Credit Hrs: 4.00

15WMST751
Special Topics
Special topics in the study of women and gender in society. The specific topic will vary. Credit Level: G. Credit Hrs: 4.00
15WMST752
Special Topics
Special Topics - Social Sciences Special topics in the study of gender in society. Topics will vary. Credit Level: G. Credit Hrs: 4.00

15WMST754
Gender, Migration and Citizenship
This course draws on feminist theory to explore the ways in which gender shapes migration and citizenship. Credit Level: G. Credit Hrs: 4.00

15WMST755
Feminist Theory: Global
The second in a three-quarter sequence, this seminar examines feminist theories in national, transnational, and global perspective. Credit Level: G. Credit Hrs: 4.00

15WMST777
World Politics & Global Feminisms
Examines the positions of women and the power of gender in world politics. Will explore feminist international relations theory, gender analyses of global issues and interstate relations, feminist critiques of international institutions, and women's transnational organizing to make feminist sense of international politics. Credit Level: G. Credit Hrs: 4.00

15WMST780
Feminist Jurisprudence
Students begin by studying various schools of feminist legal thought, including liberal, radical cultural, postmodern, and critical race feminisms, as well as LGBTQ studies. After grounding in theory, the focus shifts to applied feminist scholarship and practice. Joins 24PRSP713. Credit Level: G. Credit Hrs: 4.50

15WMST781
International Human Rights: Women's Human Rights
A study of the status of women's human and legal rights globally. Focus is on the current status of the rights of women in a variety of countries and cultures, as they relate to issues of health, personal and political rights. The role of domestic laws, international human rights instruments, and traditional cultural values as they define the rights of women. Perm of Instructor. Credit Level: G. Credit Hrs: 4.50

15WMST782
Education Law
EXAMINES LEGAL ISSUES ENCOUNTERED AT ALL LEVELS OF EDUCATION. FOCUS IS ON SUCH PROBLEMS AS ACADEMIC FREEDOM, CURRICULUM CONTROL, CENSORSHIP, MANDATORY EDUCATION, CHURCH-STATE ISSUES, FACULTY AND STUDENTS RIGHTS, TORT AND CIVIL RIGHTS, LIABILITY OF EDUCATIONAL INSTITUTIONS AND EDUCATIONAL OPPORTUNITY, INCLUDING RIGHTS OF THE HANDICAPPED. Perm of Instructor. Credit Level: G. Credit Hrs: 4.50

15WMST783
Employment Discrimination
Surveys major legislative and executive provision and prohibiting various types of discrimination in employment in the context of hiring, promotion, discharge, benefits, conditions and the like as well as procedures applicable to employment discrimination cases. Joins 24IRTS705. Credit Level: G. Credit Hrs: 4.50

15WMST784
Gender and the Law
Following an overview of the history of discrimination against women in the United States, this course examines the development of sex discrimination law in the context of employment, education, domestic relations, criminal and constitutional law. The course will also consider the work of feminist legal theorist and the advisability of various theoretical approaches. Joins 24IRTS720. Credit Level: G. Credit Hrs: 4.50

15WMST785
Sexual Orientation and the Law
EXPLORES THE RELATIONSHIP BETWEEN SEXUAL ORIENTATION AND THE LAW, ENCOMPASSING RECENT DECISIONS BY THE US SUPREME COURT, THE HAWAII TRIAL COURT'S DECISION IN THE GAY MARRIAGE CASE, AND LEGISLATIVE RESPONSES, SUCH AS THE DEFENSE OF MARRIAGE ACT. CONSTITUTIONAL PRIVACY, THE RIGHT TO PUBLIC ACCESS, AND FIRST AMENDMENT ISSUES AS THEY RELATE TO SEXUAL IDENTITY/ ORIENTATION ARE EXAMINED. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

15WMST786
Title IX Seminar
Explores the continued vitality of laws proscribing sex discrimination in education, focusing primarily on Title IX of the Education Amendments of 1972, and issues such as Title IX's impact in athletics, its protection against sexual harassment, and single-sex education. Joins IRTS 725. Credit Level: G. Credit Hrs: 4.50

15WMST787
Law, Literature and Feminism
Explores differences and similarities between the languages of the law and the languages of literature between legal thinking and literary thinking between the ways in which literary works construct worlds and the way the law constructs the worlds. Joins 24PRSP713. Credit Level: G. Credit Hrs: 4.50

15WMST788
Critical Race Theory
A new scholarly movement developed in legal academia in the mid-1980's, Critical Race Theory challenged both the substance and style of conventional legal scholarship. Race critics rejected formal equality, individual rights, and color-blind approaches to solving legal problems, employing new methodologies for legal scholarship. Joins 24IRTS777. Credit Level: G. Credit Hrs: 4.50

15WMST789
Family Law
Primary focus is on the relationship between law and the family in the context, maintenance and restructuring of domestic relations. Special attention is given to the nature of marriage, separation, divorce, dissolution, support, alimony and child custody. Joins IRTS706. Credit Level: G. Credit Hrs: 4.50

15WMST790
Graduate Internship in Women's Studies
Critical analysis of relationships between feminist theory and practice, combined with supervised experiences in community organizations active on issues of gender and social justice. Credit Level: G. Credit Hrs: 1.00-12.00

15WMST801
Feminist Research I
Individual research under faculty supervision. Credit Level: G. Credit Hrs: 4.00

15WMST808
Independent Research
Allows students to conduct research under direction of faculty. Credit Level: G. Credit Hrs: 1.00-4.00
Women's Studies

15WMST809
Independent Research
Allows students to conduct research under direction of faculty. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

15WMST810
Independent Research
Allows students to conduct research under direction of faculty. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

15WMST811
Individual Directed Research
Individual research under faculty supervision. Credit Level: G. Credit Hrs: 1.00-4.00

15WMST812
Individual Directed Research
Individual research under faculty supervision. Credit Level: G. Credit Hrs: 1.00-4.00

15WMST813
Comprehensive Analysis
Preparation for oral examination. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00
Integrated Controllership
This course focuses on internal controls, commercial policies, and accounting techniques conventionally applied for inventories, fixed assets, and current and long-term debt accounts. Prereq: 22ACCT261. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Cost Accounting
Financial accounting for manufacturing and inventories with emphasis on cost of goods sold expense and management decisions involving manufacturing. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Intermediate Accounting III
Application of generally accepted accounting principles to financial statement preparation with emphasis on Owner's Equity accounts. Prereq: 22ACCT332. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Intermediate Accounting II
Application of generally accepted accounting principles to financial statement preparation with emphasis on liability accounts. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Intermediate Accounting I
Application of generally accepted accounting principles to financial statement preparation with emphasis on asset accounts. Prereq: 22ACCT282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Introduction to Managerial Accounting
Develops foundational knowledge and skills needed to apply accounting data in planning and controlling business operations. Topics include costs, cost drivers and allocation, contribution margin and managerial budgeting. Formerly 22 ACCT 262. Prereq: 22ACCT281. BoK: QR. Credit Level: U. Credit Hrs: 5.00

Management Accounting & Control I
This is the first of a two course sequence that focuses on how managers use information to monitor and control day-to-day operations and plan for the future. Both courses emphasize how current management and cost accounting techniques are used by controllers and managers to help their firms make sound business decisions. Although each of the two courses covers different topics, both use the same texts and follow a similar course format. The overall emphasis is on learning to use both financial and non-financial accounting information in the decision making process. In addition, given that managers often operate in a team environment, students take part in several hands-on group exercises. Throughout both courses, students also have the opportunity to learn how spreadsheet software can be used to efficiently solve complex problems. Prereq: 22ACCT261, 22ACCT262. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Management Accounting & Control II
This is the second of a two course sequence that focuses on how managers use information to monitor and control day-to-day operations and plan for the future. Before taking this course you should have had OPC I. The texts and course format are similar to OPC I. Prereq: 22ACCT404. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Internal Auditing & Internal Control Monitoring
The course covers concepts, procedures and techniques that may be applied by management to comply with its legal responsibilities for risk assessment and internal controls as stipulated by current Federal Laws. The subject matter covered includes: the independent audit function, the corporate audit committee, the internal audit function, corporate ethics, threat identification, inherent risk assessment, control risk assessment, tolerable risk specifications, internal control compliance auditing, internal audit reporting, and public reporting of managers' assessments of internal controls. Prereq: 22ACCT403. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Analysis of Financial Data
covers accounting and internal control considerations pertaining to the Statement of Cash Flows. Prereq: 22ACCT402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Internal Auditing & Internal Control Monitoring
The course covers concepts, procedures and techniques that may be applied by management to comply with its legal responsibilities for risk assessment and internal controls as stipulated by current Federal Laws. The subject matter covered includes: the independent audit function, the corporate audit committee, the internal audit function, corporate ethics, threat identification, inherent risk assessment, control risk assessment, tolerable risk specifications, internal control compliance auditing, internal audit reporting, and public reporting of managers' assessments of internal controls. Prereq: 22ACCT403. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Management Accounting & Control II
This is the second of a two course sequence that focuses on how managers use information to monitor and control day-to-day operations and plan for the future. Before taking this course you should have had OPC I. The texts and course format are similar to OPC I. Prereq: 22ACCT404. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Management Accounting & Control I
This is the first of a two course sequence that focuses on how managers use information to monitor and control day-to-day operations and plan for the future. Both courses emphasize how current management and cost accounting techniques are used by controllers and managers to help their firms make sound business decisions. Although each of the two courses covers different topics, both use the same texts and follow a similar course format. The overall emphasis is on learning to use both financial and non-financial accounting information in the decision making process. In addition, given that managers often operate in a team environment, students take part in several hands-on group exercises. Throughout both courses, students also have the opportunity to learn how spreadsheet software can be used to efficiently solve complex problems. Prereq: 22ACCT261, 22ACCT262. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Cost Accounting
Financial accounting for manufacturing and inventories with emphasis on cost of goods sold expense and management decisions involving manufacturing. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Intermediate Accounting III
Application of generally accepted accounting principles to financial statement preparation with emphasis on Owner's Equity accounts. Prereq: 22ACCT332. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Intermediate Accounting II
Application of generally accepted accounting principles to financial statement preparation with emphasis on liability accounts. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Intermediate Accounting I
Application of generally accepted accounting principles to financial statement preparation with emphasis on asset accounts. Prereq: 22ACCT282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Introduction to Managerial Accounting
Develops foundational knowledge and skills needed to apply accounting data in planning and controlling business operations. Topics include costs, cost drivers and allocation, contribution margin and managerial budgeting. Formerly 22 ACCT 262. Prereq: 22ACCT281. BoK: QR. Credit Level: U. Credit Hrs: 5.00

Introduction to Financial Accounting
Develops foundational knowledge and skills needed to understand, develop and analyze financial reports. Topics include income statements, cash flows, balance sheets and financial performance. Formerly 22 ACCT 261. BoK: QR. Credit Level: U. Credit Hrs: 5.00

Introduction to Managerial Accounting
Develops foundational knowledge and skills needed to apply accounting data in planning and controlling business operations. Topics include costs, cost drivers and allocation, contribution margin and managerial budgeting. Formerly 22 ACCT 262. Prereq: 22ACCT281. BoK: QR. Credit Level: U. Credit Hrs: 5.00

Financial Accounting and Internal Control II
assets, current liabilities, and long-term debt. The course emphasizes coverage of paperless accounting processes, common hard-copy business forms, commercial financial management business practices and the commercial and accounting measures frequently taken to consummate, record and control transactions affecting inventories, fixed assets and current and long-term debt accounts. Prereq: 22ACCT401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Financial Accounting and Internal Control III
This course focuses on internal controls, commercial policies, and accounting techniques conventionally applied for investments, leases, income taxes, pensions, and stockholders' equity. The course emphasizes coverage of paperless accounting processes, common hard-copy business forms, commercial financial management business practices and the commercial and accounting measures frequently taken to consummate, record and control transactions. The course also covers accounting and internal control considerations pertaining to the Statement of Cash Flows. Prereq: 22ACCT402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Management Accounting & Control I
This is the first of a two course sequence that focuses on how managers use information to monitor and control day-to-day operations and plan for the future. Both courses emphasize how current management and cost accounting techniques are used by controllers and managers to help their firms make sound business decisions. Although each of the two courses covers different topics, both use the same texts and follow a similar course format. The overall emphasis is on learning to use both financial and non-financial accounting information in the decision making process. In addition, given that managers often operate in a team environment, students take part in several hands-on group exercises. Throughout both courses, students also have the opportunity to learn how spreadsheet software can be used to efficiently solve complex problems. Prereq: 22ACCT261, 22ACCT262. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Management Accounting & Control II
This is the second of a two course sequence that focuses on how managers use information to monitor and control day-to-day operations and plan for the future. Before taking this course you should have had OPC I. The texts and course format are similar to OPC I. Prereq: 22ACCT404. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Internal Auditing & Internal Control Monitoring
The course covers concepts, procedures and techniques that may be applied by management to comply with its legal responsibilities for risk assessment and internal controls as stipulated by current Federal Laws. The subject matter covered includes: the independent audit function, the corporate audit committee, the internal audit function, corporate ethics, threat identification, inherent risk assessment, control risk assessment, tolerable risk specifications, internal control compliance auditing, internal audit reporting, and public reporting of managers' assessments of internal controls. Prereq: 22ACCT403. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Financial Accounting and Internal Control II
This course focuses on internal controls, commercial policies, and accounting techniques conventionally applied for inventories, fixed assets and current and long-term debt accounts. Prereq: 22ACCT261. BoK: QR. Credit Level: U. Credit Hrs: 5.00

Financial Accounting and Internal Control I
This course focuses on internal controls, commercial policies, and accounting techniques conventionally applied for inventories, fixed assets and current and long-term debt accounts. Prereq: 22ACCT261. BoK: QR. Credit Level: U. Credit Hrs: 5.00

Introduction to Financial Accounting
Develops foundational knowledge and skills needed to understand, develop and analyze financial reports. Topics include income statements, cash flows, balance sheets and financial performance. Formerly 22 ACCT 261. BoK: QR. Credit Level: U. Credit Hrs: 5.00

Integrated Controllership
This capstone case-study course focuses on the controller's function selected by the instructor to emphasize how the controller can identify and analyze information needed by management teams to solve...
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credit Levels</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>22ACCT408</td>
<td>Corporate Taxation</td>
<td>This course covers the major tax issues and concerns faced by US corporations. Topics covered include: Federal State and Local Income taxes, State and Local property taxes, franchise taxes, sales and use taxes, import taxes and foreign tax issues. Treatments of State and Local taxes emphasize tax laws in the local Tri-State area. The course employs short case studies and small-group problem solving exercises. Most of the short cases and problem solving exercises will require the students to research Federal, State and Local Government level Tax WEB sites. Prereq: 22ACCT404. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>22ACCT407</td>
<td>Integrated Controllership</td>
<td>Problems, make strategic decisions, and improve firm performance. Students are provided an opportunity to apply many of the techniques and concepts learned in the Operational Planning and Control 1 &amp; 2 and Corporate Finance prerequisite courses to a variety of decision making settings, while learning how to contribute to, and be a valued member of, an integrated management team. Concepts from other business-related disciplines such as operations management, business economics, will also be needed to successfully complete the course. In addition to the quantitative aspects of a case, students will be expected to analyze the behavioral implications. Prereq: 22ACCT404, 22ACCT405. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>22ACCT406</td>
<td>Accounting for Non-Profit Organizations</td>
<td>Fund accounting requirements and procedures for governmental units, charitable and other non-profit organizations. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00</td>
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<tr>
<td>22ACCT405</td>
<td>Auditing I</td>
<td>Attestation as to fairness of financial statements for owners, creditors and especially publicly traded corporation investors. Prereq: 22ACCT331. BoK: NA. Credit Level: U. Credit Hrs: 4.00</td>
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<tr>
<td>22ACCT404</td>
<td>Auditing II</td>
<td>Audit techniques as they apply to specific balance sheet and related income statement accounts. Management services. Prereq: 22ACCT483. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>22ACCT483</td>
<td>Accounting Theory</td>
<td>Reading and research in current accounting literature. Individual student reports. Prereq: 22ACCT324. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>22ACCT598</td>
<td>Professional Ethics and Accounting Environment</td>
<td>Ethical obligations promised to the public by the accounting profession and development of reasoning skills for ethical decision making. Prereq: 22ACCT282. BoK: NA. Credit Level: U. G. Credit Hrs: 4.00</td>
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<tr>
<td>22ACCT599</td>
<td>Independent Study</td>
<td>Independent study under the direction of a faculty member. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>22ACCT511</td>
<td>Financial Accounting</td>
<td>Prepares the MBA/MS student to read, interpret, and analyze financial statements. Understand financial statement analysis for benchmarking and performance evaluation. Understand how the market reacts to financial reports. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>22ACCT713</td>
<td>Accounting For Managers</td>
<td>Use of accounting data in planning and controlling business operations. The study of activity-based costing, product pricing and cost allocations in decision-making. Prereq: 22ACCT711. Credit Level: G. Credit Hrs: 2.00</td>
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<tr>
<td>22ACCT782</td>
<td>Special Topics in Accounting</td>
<td>In-depth study of special topics in Accounting. Credit Level: G. Credit Hrs: 1.00-4.00</td>
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<tr>
<td>22ACCT821</td>
<td>Managerial Accounting</td>
<td>Dedicated to an exploration of the discipline of managerial accounting, specifically planning and controlling, non-business decision making, and inventory valuation and income determination. Computer spreadsheets will be used extensively. Prereq: 22ACCT713. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>22ACCT830</td>
<td>Partnership Taxation</td>
<td>Income tax consequences of the formation, operation, and termination of a partnership; partnership distributions; sale of a partnership interest; and withdrawal from a partnership. Prereq: 22ACCT872. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>22ACCT831</td>
<td>Corporate Tax I</td>
<td>Study of federal tax consequences of the formation and operation of a corporation. Includes distribution of cash and property, an introduction to taxation of Subchapter S corporations and tax problems related to the accumulation of income by the corporation. Prereq: 22ACCT472. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>22ACCT832</td>
<td>Corporate Tax II</td>
<td>Study of income tax problems related to stock redemptions, partial liquidations, complete liquidations, collapsible corporations, spin-offs, split-ups, and corporate reorganizations. Prereq: 22ACCT831. Credit Level: U. Credit Hrs: 4.00</td>
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Accounting Theory
22ACCT872
Level: G. Credit Hrs: 4.00

Federal Tax Planning and Research
Methodology and procedures in tax planning and research; study of corporate and shareholder taxation. Prereq: 22ACCT472. Credit Level: G. Credit Hrs: 4.00

22ACCT873
Auditing
Principles, standards and procedures involved in the conduct of an audit. Internal control, statistical sampling, objectives, and report presentation. Prereq: 22ACCT323. Credit Level: G. Credit Hrs: 4.00

22ACCT874
Advanced Auditing
Topics covered include advanced financial audit methodologies, professionalism in public accounting arena, audits of computerized systems and advanced quantitative auditing techniques. Prereq: 22ACCT873. Credit Level: G. Credit Hrs: 4.00

22ACCT875
Consolidated Financial Statements
Accounting for business combinations and the preparation of consolidated financial statements. Prereq: 22ACCT332. Credit Level: G. Credit Hrs: 4.00

22ACCT876
Accounting for Non-Profit Organizations
Accounting problems for not-for-profit institutions including the fundamentals of fund accounting for governmental units. Prereq: 22ACCT321. Credit Level: G. Credit Hrs: 3.00

22ACCT877
Auditing Transaction Cycles
This course covers audit field work procedures for examining the acquisition and payment cycle, the inventory and warehousing cycle, the capital acquisition cycle and cash balances. Procedures for closing the audit are also treated. Prereq: 22ACCT873, 22ACCT874. Credit Level: G. Credit Hrs: 4.00

22ACCT879
Accounting Information Systems
Analysis of accounting information needs of organizations, alternatives for satisfying these needs, and problems in implementation. Prereq: 22ACCT321. Credit Level: G. Credit Hrs: 3.00

22ACCT882
Strategic Cost Management
Current topics in the area of management accounting including quantitative and behavioral considerations. Prereq: 22ACCT821. Credit Level: G. Credit Hrs: 4.00

22ACCT887
International Accounting
Theory and practice-analysis of principles and procedures underlying information systems of international business. Terminology, foreign exchange, government regulations and other problem areas are considered. Prereq: 22ACCT321. Credit Level: G. Credit Hrs: 4.00

22ACCT891
Independent Study
Independent Study in Accounting Credit Level: G. Credit Hrs: 1.00-6.00

22ACCT899
Independent Study in Taxation
Special topics for students with interests in topics not covered by regular course offerings. With permission of instructor and department chair. Credit Level: G. Credit Hrs: 1.00-6.00

22ACCT901
Accounting Research Workshop
Evaluating and critiquing current state of the art accounting research. Working papers presented by visiting speakers and faculty in the weekly research workshops. Credit Level: G. Credit Hrs: 1.00-6.00
Accounting

22ACCT911
Research Seminar in Accounting
Literature survey and replication of state of the art accounting research. Credit Level: G. Credit Hrs: 3.00

22ACCT971
Research in Accounting
Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

22ACCT991
PhD Dissertation Research
Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

Business Administration

22BA101
Learning Strategies
Presents an overview of strategies for student academic success including: time management, note taking, study skills, and adjustment to university life. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA140
Pathways to Business
Examines career goals and pathways enabled by the College of Business. Topics include the resources, opportunities and choices available to pre-business students. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22BA141
Business Pathways FYE 1
Develops understandings and skills that support an integrated college experience. Part 1 topics provide an extended orientation, exploring and working with university resources. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA141H
Business Pathways - FYE 1 Honors
Develops understandings and skills that support an integrated college experience. Part 1 topics provide an extended orientation, exploring and working with university resources. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA142
Business Pathways FYE 2
Develops understandings and skills that support an integrated college experience. Part 2 topics focus on College of Business support resources and academic options. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA142H
Business Pathways - FYE 2 Honors
Develops understandings and skills that support an integrated college experience. Part 2 topics focus on College of Business support resources and academic options. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA143
Business Pathways FYE 3
Develops understandings and skills that support an integrated college experience. Part 3 is dedicated to exploring business disciplines and professional goal setting. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA143H
Business Pathways - FYE 3 Honors
Develops understandings and skills that support an integrated college experience. Part 3 is dedicated to exploring business disciplines and professional goal setting. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22BA151
Management Skills Practicum I
Introduction to the domain of business and microcomputer applications. Using a Total Quality Management framework, explores opportunities and challenges facing business. Introduces students to the College of Business, its programs and resources. BoK: NA. Credit Level: U. Credit

H=University Honors course.
Business Administration

22BA580
Business Strategy
The capstone course of undergraduate curriculum. Provides a framework for integrating knowledge from all functional areas. Perspective is that of general management of the enterprise. Prereq: 22FIN380, 22INTB380, 22MGMT380, 22QA380, 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22BA595
Research in Business Administration
Research on advanced topic in business administration designed and coordinated by members of the class. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22BA711
Communication For Managers
Focuses on communication in organizations, particularly writing, interpersonal communication, small-group communication, and presentational speaking. Issues considered include coherence, clarity, style, tone, empathy, and other basic elements in communication success. Credit Level: G. Credit Hrs: 2.00

22BA712
MBA Capstone Experience
The capstone course for MBA students that requires integration of the MBA program coursework in the definition and analysis of, and solution development for, a significant business challenge. To be taken during the final quarter of the MBA program. Prereq: 22MGMT712. Credit Level: G. Credit Hrs: 2.00

22BA713
Communications for Managers II
This course will offer further opportunities to refine and improve key business communication skills, particularly making presentations in a business context and creating concise, error-free business documents. These two congruent skills sets are almost universally identified as values critical to success in management. The common element across all focus areas of an MBA-oriented career is that -- technical and functional expertise notwithstanding -- communication proficiency is critical to obtaining influence in a competitive environment. Prereq: 22BA711. Credit Level: G. Credit Hrs: 2.00

22BA725
Global Entrepreneurship
This course addresses the following topics: Trends in international business; the global business environment; formulating and implementing a global strategy; and emerging and contemporary issues in global business as they relate to entrepreneurial activity. Credit Level: G. Credit Hrs: 4.00

22BA751
Elective Credit A
Additional course related study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22BA777
Graduate Career Management
Career development and job search strategies, self assessment, resume and marketing tool development, enhancement of case and behavioral interviewing skills, with a focus on internships and full-time employment after graduation. Credit Level: G. Credit Hrs: 1.00

22BA781
Individual Study
Individual Study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22BA782
Special Topics in Business Administration
In-depth study of special topics in Business Administration. Credit Level: G. Credit Hrs: 1.00-4.00

Business Administration

22BA791
Global Business Topics
An intensive study abroad seminar dealing with international management issues. Credit Level: G. Credit Hrs: 1.00-8.00

22BA800
Readings In Business Administration
Project and research work undertaken by a student with the approval and supervision of a faculty member. Credit Level: G. Credit Hrs: 1.00-3.00

22BA802
Managerial Communications
Introduces students to the basic concepts of effective oral and written communication and develops strong interpersonal skills. Integration of concepts in presentations in respective areas of business and use of interactive material and exercises will be extensive. Credit Level: G. Credit Hrs: 3.00

22BA870
Competitive Analysis
This course deals with competition: how to assess it and how to react/anticipate it. As such, the focus is on the environment of, and the strategic options available to, a business unit. Credit Level: G. Credit Hrs: 3.00

22BA890
Strategic Management
The course focuses on the management of the total enterprise. Emphasis is placed on a student's ability to make decisions in the face of unstructured problems and the integration of knowledge from all functional areas of business. Prereq: 22BA870. Credit Level: G. Credit Hrs: 3.00

22BA895
Special Topics in Business Administration
In-depth study of selected topics in business administration. Credit Level: G. Credit Hrs: 3.00

22BA990
Introduction to Research and Teaching for Doctoral Students
Introduces the role of research, writing and teaching in the profession and provides doctoral students with a foundation for success in the academic profession. Credit Level: G. Credit Hrs: 3.00

22BA992
Doctoral Seminar
1-15 gr cr. Variable cr. Credit Level: G. Credit Hrs: 1.00-15.00

Business Law

22BLAW280
Legal Environment of Business
Examines the legal and ethical dimensions of managerial decisions. Topics include human resource, consumer protection, antitrust and contract law. Formerly 22BLAW 271. BoK: SE. Credit Level: U. Credit Hrs: 4.00

22BLAW435
Legal Aspects of Entrepreneurship
This course will acquaint the student with the various forms of business organizations and ownership so s/he will be able to select the best form for the implementation of business decisions. Prereq: 22BLAW280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22BLAW445
Global Legal Environment
Provides the business person with a working knowledge of the ground rules for international trade to help compete successfully. This course is a survey of the significant areas of concern to managers making the decision to compete globally. Prereq: 22BLAW280, 22INTB380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
Business Law

22BLAW455
The Law of Competitive Behavior
Course examines impact of law at various stages of product development and marketing. Students become acquainted with law protecting product concept, constitutional considerations in advertising and completion, criminal consequences, and ethical concerns in marketing. Prereq: 22BLAW271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22BLAW599
Independent Study
Individual study under the direction of a faculty member BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22BLAW711
Business Law for Managers
Develops an appreciation for the legal and regulatory environment in which the firm operates. Factors within law and regulation that can influence managerial decision making are explored. The role of antitrust, unfair competition, EEO, labor law, and environmental regulations are examined. Credit Level: G. Credit Hrs: 2.00

22BLAW781
Individual Study
Individual study under the direction of a faculty member Credit Level: G. Credit Hrs: 1.00-4.00

22BLAW850
Legal and Regulatory Environment
This course is designed to acquaint students with the legal, regulatory, and ethical issues which are frequently encountered by business managers and their organizations. Credit Level: G. Credit Hrs: 3.00

22BLAW851
Corporate Law I
Examines the areas of commercial law which affect the decisions of accounting professionals and financial managers, including the principles of the Uniform Commercial Code. Credit Level: G. Credit Hrs: 4.00

22BLAW852
Corporate Law II
Familiarizes students with the legal structures of business enterprise and the legal issues, particularly as they relate to legal liability of the accountant. Credit Level: G. Credit Hrs: 4.00

22BLAW891
Independent Study
Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-6.00

Entrepreneurship/Family Business

22ENTR401
Introduction to Innovation
This introductory course on innovation and entrepreneurship addresses two major topics. 1. The seven knowledge areas of innovation: intellect, domain knowledge, thinking, problem solving, creativity, innovation and execution. 2. The innovation process model is applied to entrepreneurial ideation, conceptualization and opportunity recognition. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR410
Management of Closely Held Businesses
Introduces students to the unique management issues facing family privately owned businesses. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR460
Financial Management in Private Firms
Introduces students to the unique accounting, financial and information issues of private firms. Topics include sources of capital, financial analysis, business valuation, financial management and firm and owner tax and estate implications. Prereq: 22ACCT282, 22BLAW280, 22IS280, 22QA282, 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Entrepreneurship/Family Business

22ENTR460
Financial Management in Private Firms
This course examines impact of law at various stages of product development and marketing. Students become acquainted with law protecting product concept, constitutional considerations in advertising and completion, criminal consequences, and ethical concerns in marketing. Prereq: 22BLAW271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22ENTR501
Corporate Entrepreneurship
The focus of the undergraduate course is to encourage students to study the theories, principles, concepts, practices and applications of corporate entrepreneurship in order to prepare them to engage effectively in intrapreneurial actions. Case method and lecture will be used. Prereq: 22ACCT282, 22BLAW280, 22IS280, 22QA282, 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR570
Entrepreneurship

22ENTR593
Special Topics in Family Business/Entrepreneurship
In depth study of selected topics. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR598
Capstone in Family Business/Entrepreneurship
Provides direct assistance to small businesses and provides the student an opportunity to aid in the solution of real-world problems. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR599
Guided Study in Family Business/Entrepreneurship
Individual study under direction of a faculty member. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22ENTR705
Entrepreneurship New Venture Creation
Evaluation and initial operations of high potential ventures. Case method. Credit Level: G. Credit Hrs: 4.00

22ENTR715
Entrepreneurship and E-Business
This course focuses on e-business design to initiate, support and build entrepreneurial activities. Credit Level: G. Credit Hrs: 4.00

22ENTR725
Global Entrepreneurship
This course addresses the following topics: trends in international business, the global business environment, formulating and implementing a global strategy, and emerging and contemporary issues in global business as they relate to entrepreneurial activity. Credit Level: G. Credit Hrs: 4.00

22ENTR781
Independent Study in Entrepreneurship
Student independently pursues small, entrepreneurial and/or family business topics of specific individual interest. Student must obtain a faculty supervisor and approval prior to registration. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

22ENTR782
Management of Closely Held and Family Business
This course emphasis is strategic, aimed at development of a systematic approach for assessing and improving the health of a family/private firm from the perspective of the owner, partner, or CEO. Credit Level: G. Credit Hrs: 4.00

22FIN281
Personal Finance
Principles and procedures in planning and management of personal financial problems. Development of personal finance plans and budgets. The role and use of financial intermediaries, such as credit and savings institutions, in family financing; insurance, real estate and...
Finance

22FIN281 Personal Finance
- Securities investments; estate planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN351 Foundations of Finance: Risk and Value
- Provides the student with an understanding of the theoretical underpinnings of finance. The course covers a set of topics focusing on preparing students for financial decision-making. Prereq: 22FIN352. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN380 Business Finance
- This is the core finance course required of business majors. Business Finance acquaints students with the fundamental principles of finance. Two key concepts developed in the course will be the time value of money and the tradeoff between risk and return. You will develop the analytical tools necessary to interpret corporate financial statements in order to value many financial investments. A major emphasis in the class will be on learning how to think systematically about financial valuation and how to apply these insights to a variety of business (e.g., capital budgeting decisions) and personal (e.g., retirement planning, automobile/mortgage loans) financial problems. Prereq: 15MATH227, 22QA281, 22QA282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN401 Corporate Finance
- In this course students will develop the analytical tools necessary for analyzing corporate financing decisions. Central to these decisions is the firm's cost of capital. You will learn how to compute the cost of capital and how to apply it to numerous questions like what is the value of the firm, should the firm raise capital, what is the optimal mix of debt and equity, what should the firm's payout (dividend) policy be, and should the firm lease or buy its assets? Financial modeling (in EXCEL) will be a major emphasis in the course. Prereq: 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN402 Raising Capital
- This course covers financial markets, instruments and institutions with the primary focus being on the capital raising and financing activities of firms at different stages in their life cycles. One of the critical activities a company must do well to succeed is raising the capital. The when, where and how of raising capital is the focus of the course. The perspective will typically be that of a firm wishing to raise capital, though we will also examine financing transactions from the viewpoint of the participating financial intermediary. We analyze financing choices for younger firms, for which there exists little or no security price information and then examine capital raising issues relevant to larger, listed firms. Topics to be covered in this course include the role of financial intermediaries - such as commercial and investment banks - in the capital raising process, the decision to go public, mechanism and pricing of initial public offerings, role of investment banks in IPOs, high-tech firm financing, venture capital, bank debt, private placements, public debt markets, commercial paper and junk bond markets. Prereq: 22FIN401. BoK: NA. Credit Level: U. Credit Hrs: 2.00

22FIN403 Mergers and Acquisitions
- This course uses an analytical framework and real-world applications to introduce the key principles and techniques of successful mergers, acquisitions, divestitures and leveraged buyouts. It addresses crucial questions including: Why do mergers that looked great on paper fail in reality? How does one value companies acquiring or being acquired? What is the best negotiation strategy? What does it take to make the "synergy" come to life? How can a merger be funded in such a way as to retain the merged entity's flexibility? When do leveraged buy-outs make sense and how can they be financed? One goal for students is to develop a critical appreciation of key finance criteria in a proposed acquisition, so as to grasp the main strengths and risks of the company's strategic and financial alternatives. Prereq: 22FIN401.
Finance

22FIN408  New Venture Finance
22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN411  Investments
This course provides a detailed overview of investment management. The goal of the course is to provide students an understanding of the key differences in the various investment vehicles as well as a set of general techniques for characterizing and valuing the risks inherent in these various instruments. The course will consider the analysis of both equity and debt instruments, leaving the price of derivative securities (such as options, futures and securitized instruments to FIN 421 (Derivative Securities and Markets). In addition to providing a theoretical treatment of valuation techniques, FIN 411 also provides the practical skills of financial modeling using spreadsheets, enabling the student to conduct applied analysis useful in their future professional careers. The course will also examine the value of active investment management given empirical evidence on the efficiency of various markets and develop methods for evaluating the performance of investment managers. The course will also discuss tax implications and strategies. Prereq: 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN413  Portfolio Management
This overview of portfolio management presents several views and approaches to investment decision making in today’s markets. Portfolio management is the professional management of various securities to meet specified investment goals for the benefit of investors. To accomplish these objectives, we need to learn about pricing models, active and passive management, investment styles and market efficiency. Prereq: 22FIN401, 22FIN411, 22FIN421. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN414  Fixed Income
The principal objective of this course is to provide a detailed analysis of fixed income securities. By the end of the course students will have a good working knowledge of the analysis of debt investments, including basic characteristics of bonds in alternative sectors, valuation tools, and factors that influence bond yields. Prereq: 22FIN401, 22FIN411, 22FIN421. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN421  Derivatives Markets and Securities
The principal objective of this course is to provide a detailed examination of option, futures, forwards and swaps. By the end of the course students will have a good knowledge of how these contracts work, how they are traded, how they are used, and how they are priced. A major emphasis in the class will be on learning how to use the binomial model to think systematically about derivative instruments. Prereq: 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN431  Financial Information and Valuation
The course is about the analysis of financial information particular firms’ financial statements for making decisions to invest in businesses. The primary focus is on equity (share) valuation with some attention given to credit analysis and the valuation of debt. The methods of fundamental analysis will be examined in detail & applied in cases and projects involving listed companies. Topics include models of shareholder value, a comparison of accrual accounting and discounted cash flow approaches to valuation, the analysis of profitability, growth and valuation generation in a firm, diagnosing accounting quality, forecasting earnings and cash flow, proforma analysis for strategy and planning, and the determination of price/earnings (P/E) and market-to-book (P/B) ratios. Prereq: 22ACCT281, 22FIN380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Finance

22FIN452  Securities Trading
This course examines the theory and practice of securities trading at exchanges around the world. The goal of the course is to have students understand how trading and the design of markets affects liquidity, informativeness, transparency, volatility and fairness. During the course, students will analyze alternative trading strategies, the cost of trading, innovations in exchanges, and regulatory policy. The course also provides hands-on trading experience using realistic trading simulations. Prereq: 22FIN401. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN453  Financial Institutions
This course provides a survey of financial institutions. The goal of the course is to characterize the different functions, services and regulatory environments of the various institutions in the financial services industry. The primary focus is on understanding the range of services offered and the typical challenges financial services firms face and how they create value. Prereq: 22FIN401. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN454  Risk Management
After a brief introduction to the nature of financial institutions, this course focuses on the identification, measurement and management of the risks faced by banks and other financial institutions. The risks identified include interest rate risk, market risk, foreign exchange risk, sovereign risk and liquidity risk. Once the risks are identified, the initial focus is on how to measure them and then on the techniques used to manage them. Prereq: 22FIN401, 22FIN421. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22FIN461  Advanced Corporate Finance
Develops the analytical framework for making investment, financing, and dividend decisions in the non-financial firm. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN462  Investment Analysis
Focuses on applying the tools and strategies of investment management in contemporary markets. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN463  Financial Management of Financial Institutions
Focuses on the financial management of financial institutions operating in a changing environment. Particular stress is given to managing risk. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN465  Treasury Management
Analysis and efficient management of operating cash flows. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN471  Financial Markets and Institutions
Applications of derivatives to the analysis and management of portfolio risk and return. Prereq: 22FIN352. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN472  Cases in Finance
Applications of derivatives to the analysis and management of portfolio risk and return. Prereq: 22FIN361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22FIN591  Problems in Financial Decision Making
This capstone finance course provides the student with the opportunity to apply knowledge and skills from earlier finance courses. Prereq: 22FIN461. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Financial Econometrics I
Continuation of Financial Econometrics I. Focuses on application to financial market data. Prereq: 22FIN731. Credit Level: G. Credit Hrs: 2.00

Financial Econometrics II
Financial Information and Valuation
The evaluation and uses of public financial accounting information and the implications of this information for security analysis and valuation. Credit Level: G. Credit Hrs: 4.00

Equity Securities Analysis and Valuation
Applications of valuation theory and financial accounting information for the analysis and valuation of equity securities. Prereq: 22FIN711, 22FIN735. Credit Level: G. Credit Hrs: 4.00

Fixed Income Securities Analysis and Valuation
Applications of valuation theory and financial accounting information for the analysis and valuation of fixed income securities. Prereq: 22FIN713. Credit Level: G. Credit Hrs: 4.00

Investments
An in-depth analysis of equity, fixed income securities, derivatives, and portfolio formation. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

Options and Futures
An in-depth analysis of options, futures, swaps and other derivative securities and their role and uses in investments. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

Portfolio Management I
An in-depth coverage of portfolio theory and performance evaluation. Prereq: 22FIN735, 22FIN711. Credit Level: G. Credit Hrs: 4.00

Portfolio Management II
Application of portfolio theory to the construction and management of investment portfolios. Prereq: 22FIN745. Credit Level: G. Credit Hrs: 2.00

Real Estate and Alternative Investments
A survey of essential topics in real estate and alternative investments and their role in portfolio diversification and portfolio performance. Prereq: 22FIN745, Coreq: 22FIN735, 22FIN711. Credit Level: G. Credit Hrs: 2.00

Money and Capital Markets
An in-depth analysis of institutions, money markets, bond markets, and equity markets that comprise the financial system. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

Derivative Markets and Risk Management
Applications of derivatives to the analysis and management of portfolio risk and return. Prereq: 22FIN711, 22FIN735. Credit Level: G. Credit Hrs: 2.00

International Finance
An in-depth analysis of the global aspects of financial markets and corporate finance. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

International Financial Markets and Institutions
A survey of essential concepts in international macro finance that influence risk and return in global capital markets. Prereq: 22FIN711, 22FIN735. Credit Level: G. Credit Hrs: 2.00
Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

22FIN761
Advanced Corporate Finance
An in-depth analysis of corporate governance and ownership structure, executive compensation and corporate performance, and strategic considerations in financial policies. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22FIN762
Advanced Capital Budgeting and Real Options
An in-depth analysis of capital budgeting decisions. Topics covered include: estimation of the cost-of-capital, issues in forecasting and valuing cash flows from projects, and the applications of real options to corporate capital budgeting decisions. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22FIN771
Professional Practice
Applications of investment theory to investment problems faced by practicing professionals. Prereq: 22FIN745, Coreq: 22FIN735, 22FIN711. Credit Level: G. Credit Hrs: 2.00

22FIN781
Individual Study
Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22FIN782
Special Topics in Finance
In-depth study of special topics in Finance. Credit Level: G. Credit Hrs: 1.00-4.00

22FIN895
Special Topics in Finance
In-depth study of selected topics in finance. Prereq: 22FIN713. Credit Level: G. Credit Hrs: 3.00

22FIN901
Seminar in Financial Theory
A review of the theoretical and empirical foundations of current financial thought. Credit Level: G. Credit Hrs: 3.00

22FIN902
Current Topics in Corporate Finance
In-depth study of selected topics in corporate finance. Emphasis on current literature in this area. Credit Level: G. Credit Hrs: 3.00

22FIN903
Financial Institutions and Markets: A Theoretical Perspective
In-depth study of selected topics in financial institutions. Emphasis on current literature in this area. Prereq: 22FIN901. Credit Level: G. Credit Hrs: 3.00

22FIN904
Seminar in Investments
In-depth study of selected topics in investments. Emphasis on current literature in this area. Prereq: 22FIN901. Credit Level: G. Credit Hrs: 3.00

22FIN905
Information and Financial Contracting
Seminar in the economics of information & financial contracting. Will study equilibria & welfare properties of markets under asymmetric information, contracting in the presence of asymmetric information, bargaining, & auctions. Credit Level: G. Credit Hrs: 3.00

22FIN906
Market Microstructure
Market microstructure is the study of the process and outcomes of exchanging assets under a specific set of rules. Microstructure theory focuses on how specific trading mechanisms affect the price formation process. Credit Level: G. Credit Hrs: 3.00

22FIN971
Research in Finance
Variable credit. Credit Level: G. Credit Hrs: 1.00-15.00

H=University Honors course.
Honors Plus

22HNP659H
Honors PLUS - Independent Study
Independent study course for students participating in the Carl H. Lindner Honors-PLUS program. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

International Business

22INTB214H
Cultural Competency: Understanding the Cultural Gap
Course will focus on understanding culture and development of skills necessary to work in a global business environment. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22INTB380
Global Business Environment
Introductory course in international business. Provides an overview of financial, economic, marketing, management, accounting and operations issues related to doing business in a global environment. Also covers trade policy and international institutions involved in global business. Prereq: 22INTB380. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22INTB380H
Global Business Environment - Honors
Introductory course in international business. Provides an overview of financial, economic, marketing, management, accounting and operations issues related to doing business in a global environment. Also covers trade policy and international institutions involved in global business. Prereq: 22INTB380. BoK: DC. Credit Level: U. Credit Hrs: 4.00

22INTB390
Understanding European Business - Belgium
Students will develop an understanding of EU business culture and practices through a combination of lectures, discussion, company visits and experiential activities. Prereq: 22INTB380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB450
International Management

22INTB501
Study Abroad A
International course at a foreign institution. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

22INTB502
Study Abroad - Linz, Austria: Intensive German
Intensive German Language course delivered at Johannes Kepler University, Linz, Austria as part of study abroad program Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB503
Study Abroad - Linz, Austria: Language & Culture
German Language and Austrian culture course delivered at Johannes Kepler University in Linz, Austria as part of study abroad program. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB504
Study Abroad - Linz, Austria I
Study Abroad, Linz, Austria: Students will enroll in Business courses at Johannes Kepler University, Linz, Austria. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

22INTB505
Study Abroad, Linz, Austria II
Study Abroad, Linz, Austria: Students will enroll in Business courses at Johannes Kepler University, Linz, Austria. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

International Business

22INTB506
Study Abroad - Linz, Austria II
Study Abroad, Linz, Austria: Students will enroll in Business courses at Johannes Kepler University, Linz, Austria. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

22INTB507
Study Abroad - Linz, Austria
Study Abroad, Linz, Austria: Students will enroll in Business courses at Johannes Kepler University, Linz, Austria. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

22INTB511
Study Abroad: China
Students will visit the People's Republic of China and explore economic, political, social and cultural conditions as they apply to doing business in China. Students will attend class sessions that will include lectures by local Chinese experts and foreign business executives. They will visit companies in China and they will visit key cultural sites. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB512
Study Abroad Chile: Doing Business in Chile
Students will attend classes at the Universidad del Desarrollo, in Santiago, Chile. The course focuses on building understanding of the Chilean business environment, trade relations with the US and development of an enlarged trade agreement between North and South America. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB513
Study Abroad: Mexico
Students will attend class sessions in Mexico focused on doing business in Mexico. They will visit local companies and visit historic and cultural sites. Prereq: 22INTB380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB515
Service Learning Study Abroad: Central America
Students will work on a service learning project in Central America. The project will involve some business consulting to local business. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB516
Study Abroad Ireland
Students will enroll in business classes at the University College, Cork, Ireland. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB517
Study Abroad Thailand: Doing Business in Thailand
Students will attend classes in Thailand. The course focuses on building understanding of the Thai business environment and trade relations with the US. Prereq: 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22INTB518
Study Abroad France and Spain
Students will visit Toulouse, France and Barcelona, Spain and explore economic, political, social and cultural conditions as they apply to doing business in France, Spain and the European Union. Students will attend class sessions that will include lectures by local European experts and foreign business executives. They will visit companies in France and Spain and will visit key cultural sites. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB525
International Accounting and Financial Management
Identify and explain accounting and financial controls necessary to be an effective global manager. Prereq: 22INTB390, 22ACCT282, 22FIN352. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22INTB530
Management of Cultural Differences
Students will do extensive reading and review of the literature on managing multi-cultural environments. Students will present analyses of
### International Business

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Prerequisites</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>22INTB530</td>
<td>Management of Cultural Differences</td>
<td>cross-cultural management issues; assessments of business practices in other cultures; and development of cross cultural training principles. Prereq: 22MGMT380. BoK: NA.</td>
<td>U.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB535</td>
<td>Virtual Teams</td>
<td>This course will focus on cross-cultural communications, teamwork and virtual teams. UC students will work virtually with European students at one of our partner schools in Europe. (No travel is involved.) You will work in team (including UC and European students) using video conference technology, email and Internet/Web camera to do research on teams, teamwork, virtual teams and cross-cultural communication. The course involves assigned readings on teamwork and as well as research in particular topical areas. Prereq: 22MGMT380. BoK: NA.</td>
<td>U.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB593</td>
<td>Special Topics in International Business</td>
<td>In depth study of selected topics in international business. BoK: NA.</td>
<td>U.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB594</td>
<td>Current Issues in International Business</td>
<td>The purpose of this course is to investigate current issues and controversies in global business. The rising power of China, instability in the Middle East, and north-south economic disparity are just a few of the critical issues in global business today. Through a combination of book chapters, cases and articles in the business press, we will investigate the problems associated with globalization, outsourcing, immigration, political and economic instability, resource scarcity, and cultural differences. This is a project-based seminar/learning community since this is an emerging field. Prereq: 22INTB380. BoK: NA.</td>
<td>U.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB599</td>
<td>Guided Study in International Business</td>
<td>Individual study under the direction of a faculty member. Perm of Instructor. BoK: NA.</td>
<td>U.</td>
<td>1.00-4.00</td>
</tr>
<tr>
<td>22INTB801</td>
<td>International Study Abroad - Location A</td>
<td>An intensive course in International Management. Credit Level: G.</td>
<td>G.</td>
<td>1.00-6.00</td>
</tr>
<tr>
<td>22INTB802</td>
<td>International Business: Study Abroad Linz-Prague</td>
<td>Students will study the expanding European Union and doing business in Central and Eastern Europe. Course will focus on emergence of market economies, cross-cultural management, and the global impact of EU expansion. Credit Level: G.</td>
<td>G.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB803</td>
<td>Study Abroad Chile: Doing Business in Chile</td>
<td>Students will attend classes in Santiago, Chile. The course focuses on building understanding of the Chilean business environment, trade relations with the US, and development of an enlarged trade agreement between North and South America. Credit Level: G.</td>
<td>G.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB804</td>
<td>Study Abroad China: Doing Business in China</td>
<td>Students will attend classes with partner universities at multiple sites in China. Course content focuses on the development of China’s market economy, entry into the WTO, and trade relations with the west Credit Level: G.</td>
<td>G.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB805</td>
<td>Study Abroad France: Doing Business in the European Union</td>
<td>Students will attend classes with partner universities in France and Spain. The course focuses on European culture, business practices and the European Union. Credit Level: G.</td>
<td>G.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB806</td>
<td>Study Abroad Germany: Doing Business in Germany and the European Union</td>
<td>Students will attend classes with partner universities in Germany. The course focuses on German reunification, European culture, business practices and the European Union. Credit Level: G.</td>
<td>G.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB807</td>
<td>Study Abroad Thailand: Doing Business in Thailand and Southeast Asia</td>
<td>Students will attend classes in Thailand. The course focuses on developing economies of SE Asia, the influence of Buddhist culture on business, and Thai trade. Credit Level: G.</td>
<td>G.</td>
<td>4.00</td>
</tr>
<tr>
<td>22INTB891</td>
<td>Independent Study</td>
<td>Independent study in International Business Credit Level: G.</td>
<td>G.</td>
<td>1.00-6.00</td>
</tr>
</tbody>
</table>

### Information Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>22IS212</td>
<td>Foundations of Information Systems</td>
<td>This course introduces students to the basic building blocks of an information system - hardware, software, and data. In addition, students are taught the fundamentals of structured programming. BoK: NS.</td>
<td>U.</td>
<td>4.00</td>
</tr>
<tr>
<td>22IS280</td>
<td>Computer Problem Solving for Business</td>
<td>Provides foundational understandings and skills for applying information technology to managerial decision making and problem solving. Topics include information systems such as decision support, enterprise, transaction processing and knowledge management systems. Formerly 22 IS 270. BoK: NA.</td>
<td>U.</td>
<td>5.00</td>
</tr>
<tr>
<td>22IS280H</td>
<td>Computer Problem Solving for Business</td>
<td>Provides foundational understandings and skills for applying information technology to managerial decision making and problem solving. Topics include information systems such as decision support, enterprise, transaction processing and knowledge management systems. Formerly 22 IS 270. BoK: NA.</td>
<td>U.</td>
<td>5.00</td>
</tr>
<tr>
<td>22IS290</td>
<td>Business Application Development</td>
<td>The is an introductory course on Web application development, using Microsoft’s newest development platform, Visual Studio.Net 2008. This course also covers ASP.Net and VB.Net. Students are expected to develop a simple Web application that incorporates these technologies. The course includes a mandatory lab component where students can practice with the concepts and approaches discussed in the classroom. The objectives of the course are to: introduce students to the basic components of an information system, give students hands-on experience with the development of a simple, dynamic (i.e. data driven) Web-based application, using one of the most popular development platforms in industry (.Net). BoK: NS.</td>
<td>U.</td>
<td>5.00</td>
</tr>
</tbody>
</table>
Information Systems

22IS320
Business Process Modeling
One of the most important activities for an information systems professional is analyzing, modeling and documenting business processes. Process models can greatly benefit organizations by helping them to identify opportunities to use information technology to streamline operations and optimize organizational performance. The objectives of this course are to expose students to the importance of business process modeling, the skills required of effective business analysts, the systems development life cycle, specific process modeling techniques such as Data Flow Diagrams and Use Cases, the role of Business Process Management (BPM) at the organizational level, and one or more specific BPM tools (e.g. BlueSpring or Pro Vision). BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS330
Database Design
Data is increasingly recognized as a vital organizational resource. With the growing use of advanced data management technologies and applications, database systems have been recognized as strategic resources to achieve competitive advantage. The objective of this course is to provide students with a comprehensive introduction to the following managerial and technical issues in database design: concepts of data management and database systems, database design life cycle, conceptual data modeling using entity-relationship models, logical database design using relational data model, normalization of relations, and relational algebra and structure query language (SQL). Coreq: 22IS290. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS340
IT Architecture and Networks
This course is designed to give IS students a strong foundation in systems architecture and the principles of data communications. Specifically, this course will give the student and understanding of the following aspects of data communications: technology - the technology underlying computer systems, data communications, networks and communications software; architecture - the way in which computer components, computer and network hardware, software and network services are interconnected; and applications - how data communications can be used to support organizations’ business strategies. Coreq: 22IS290. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS410
Advanced Application Development
The objective of this course is to provide students with exposure to application development using Sun’s Java language and Java 2 Enterprise Edition development platform. The goals are to give students a firm foundation in the logic of programming, and to expose students to a popular object-oriented language (Java) that is widely used for systems development, particularly for Web-based systems. Coreq: 22IS290. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS420
Advanced Systems Design
This course is a follow on to IS 320 (Business Process Modeling). The specific objectives of this course are to teach students more advanced techniques in information systems design, including to analyze and document the requirements for an information system using an object-oriented approach and UML (Unified Modeling Language); to construct and document sequence and class diagrams; the basic principles of Service-Oriented Architecture (SOA); the technological underpinnings of Web services; and to use Business Process Execution Language to model applications using the SOA paradigm. Prereq: 22IS320, 22IS330. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS431
Digital Business Strategy
Effective multi-channel strategies, and enterprise software. The objective of the course is to prepare the student to be an effective innovator and change agent capable of using digital technologies to 1) contribute to the enterprise’s sales growth and profitability, and 2) enable the enterprise to meet its mission. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22IS435
Data Warehousing and Mining
A data warehouse is a specially prepared repository of data designed to support decision making. Data are extracted from source systems, transformed, and loaded into data stores. Data mining is an important use of a data warehouse. This course is designed to provide a thorough understanding of data warehousing and mining, how to build and maintain data warehouses, and how to use data warehousing and mining for business advantage. Prereq: 22IS330. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22IS450
Information Systems Security
This course provides a technical overview of information systems security. The objective is to expose students to the technologies used to implement secure information systems at the network, data, and application levels. Topics covered include: cryptography, authentication, authorization, database security, software security, security protocols, and operating systems security. Students will also be exposed to the principles of planning and performing security assessments, risk analysis and penetration testing. Prereq: 22IS330, 22IS340. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS460
Business Intelligence
Data is a critical resource - the ability to extract meaningful business intelligence from vast amounts of transactional data that most corporations routinely collect is an important key to success in today’s competitive landscape. This course will introduce students to two business intelligence technologies: data warehousing and data mining. Specifically, students will learn (a) the differences between data warehouses and OLTP databases; (b) Dimensional Modeling using Star schema; (c) the architecture and infrastructure of data warehousing; and (d) information delivery techniques, including Online Analytic Processing (OLAP) and data mining. Coreq: 22IS330. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS550
Database Design and Integration
Covers the systems design and implementation of a software system using a programming language and the management of these activities. Topics include: project standards, software quality assurance, structured design; program specifications; selection of a programming language environment; coding; testing; configuration management; user tracking; systems delivery; maintenance; post-implementation review; reverse engineering; and re-engineering. Group project. Prereq: 22IS330, 22IS340, 22IS430. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22IS590
IS Project Management
The goal of this course is to enable students to learn and apply the processes, tools, techniques, and problem-solving approaches needed to successfully manage information system (IS) projects. Working in teams, students will evaluate a real-life business problem and offer an end-to-end IS solution. Students will manage IS projects through the application of theoretical frameworks, appropriate tools and techniques, and business process and change management concepts as they are presented and discussed in the reading materials and the classroom. They include but are not limited to, project management strategies, life cycle, methodology (e.g. RAD), tools (e.g. MS Project), techniques (e.g. GANT, WBS) and performance metrics. Students will analyze real-life mini-business cases throughout the course which will be used to

H=University Honors course.
Information Systems

22IS590
IS Project Management
develop and refine their problem-solving approaches. The course culminates with a presentation of a working prototype for addressing a real-life business problem. Prereq: 22IS320, 22IS330. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22IS593
Special Topics in Information Systems
Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

22IS596
Guided Study in Information Systems
Individual study under the direction of a faculty member. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22IS711
Information and Technology Management
This course, taught primarily by the case method, examines the environment, objectives, and issues relating to the management of the information systems function in current business entities. Its goal is to prepare managers and future managers to deal with information systems related issues. The focus is on the fundamental management issues associated with identifying, designing, implementing, supporting, and effectively using information systems; the tradeoffs associated with dealing with these issues, and approaches for resolving them. Credit Level: G. Credit Hrs: 4.00

22IS715
Java in the Enterprise
This course will serve as an introduction to web application development, using Sun's Java 2 Enterprise Edition development platform. In this regard, we will discuss technologies such as basic HTML, style sheets, Dynamic HTML, JSP, JavaBeans, JDBC, Servlets, and Java 2 programming language. It is the goal of this course to provide students with the necessary skills in designing and developing application systems with a focus on Web based application systems. Credit Level: G. Credit Hrs: 4.00

22IS721
Systems Analysis and Modeling
There is no activity more fundamental to the field of information systems than the analysis, design, and development of systems. This course teaches students how to analyze and document the requirements for a system. It is based primarily on the object oriented approach - students learn how to construct use case diagrams, sequence diagrams, and class diagrams, and document them using UML (Unified Modeling Language). Students prepare a requirements analysis document for a hypothetical case study, using a CASE tool (Rational Rose). The course also covers one prominent structural modeling technique - data flow diagramming. Prereq: 22IS732. Credit Level: G. Credit Hrs: 4.00

22IS724
IS/IT Architecture
This course introduces students to the basic building blocks of an information system - hardware, software, data and communication channels - and the role each of these plays in an information system. This course is designed as a technical introduction to information systems. The major topics covered include 1) the role and representation of data, 2) hardware architecture, 3) software architecture and 4) data communications. Credit Level: G. Credit Hrs: 4.00

22IS725
Web Systems and Services
This is an introductory course on the development of web systems and services, using Microsoft's newest development platform, Visual Studio.Net 2008, and covering ASP.Net (using VB.Net). Students will learn to develop dynamic web-based systems, both stand-alone and component-based. They will learn the principles of Service-Oriented Architecture (SOA) and web services, and enabling
22IS751
IT Auditing
assessment. Credit Level: G. Credit Hrs: 4.00

22IS755
Information Systems Project Management
The goal of this course is to enable people to use the processes, tools, techniques, and areas of knowledge needed to successfully manage information system projects. Examples of both successful and failed IS projects will be used to gain a better understanding of the management of IS projects. We will also explore the use of automated tools including various project estimating models, life cycle methodologies (pre-defined tasks and work-breakdown structures), and MS Project. How to manage outsourced IS projects and vendor relationships will also be addressed. Prereq: 22IS721. Credit Level: G. Credit Hrs: 4.00

22IS758
IT Services Management
This course will discuss critical challenges in the management of the IT function as a service oriented department. Popular frameworks and concepts such as ITIL, COBIT and SOA will be discussed, along with current issues in IT governance. Credit Level: G. Credit Hrs: 4.00

22IS760
CIO Forum
This course is an IT management forum in which Chief Information Officers (CIO’s) from industry speak and share their views, perspectives, and thoughts on strategic issues and contemporary topics in enterprise IT management. It is a chance for the students to learn from what is actually happening “in the trenches.” Students will perform research on specified topics so as to better inform both the in-class debates and executive’s decision making on critical strategic issues. In doing so, students can bridge the gap between theory and practice in enterprise IT management. Credit Level: G. Credit Hrs: 4.00

22IS781
Individual Study
Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22IS782
Special Topics in IS
In-depth study of special topics in Information Systems. Credit Level: G. Credit Hrs: 1.00-4.00

22IS790
Industry Practicum I
All MS-IS students must fulfill an experience-based learning component by doing (1) a supervised industry project; or (2) at least two quarters of supervised co-op work. The project will be supervised by an IS faculty member. The student must prepare an industry practicum proposal which includes the problem statement and a definition of the scope of the project. The final deliverable should be a solution to the defined problem in the form of an actual implementation or design, depending on the scope of the problem addressed. At the end of the project, the student must submit and present a project report. Students doing a co-op must similarly prepare and present a written report on the project they worked on during the co-op. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

22IS792
Industry Practicum II
they worked on during the co-op. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

22IS794
Industry Practicum III
All MS-IS students must fulfill an experience-based learning component by doing (1) a supervised industry project; or (2) at least two quarters of supervised co-op work. The project will be supervised by an IS faculty member. The student must prepare an industry practicum proposal which includes the problem statement and a definition of the scope of the project. The final deliverable should be a solution to the defined problem in the form of an actual implementation or design, depending on the scope of the problem addressed. At the end of the project, the student must submit and present a project report. Students doing a co-op must similarly prepare and present a written report on the project they worked on during the co-op. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

22IS795
Seminar in Information Systems
This course will cover a current topic in Information Systems. Credit Level: G. Credit Hrs: 2.00-4.00

22IS971
Research in Information Systems
Var. credit. Credit Level: G. Credit Hrs: 1.00-15.00

22IS981
MBA Thesis Research
Var. credit. Credit Level: G. Credit Hrs: 1.00-15.00

22IS991
PhD Dissertation Research
Var. credit. Credit Level: G. Credit Hrs: 1.00-15.00

Management

22MGMT171
Managerial Communication
This course will challenge students to develop professional communication skills. More specifically, the course emphasizes effective presentations and writing in business contexts. Students will practice related techniques through varied individual and group applications that leverage language, visuals and technology. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22MGMT380
Management
Students will learn and apply principles of organizational behavior in work settings. Problems & issues facing managers will be examined using behavioral theories and concepts. BoK: DC. Credit Level: U. Credit Hrs: 4.00

22MGMT380H
Management - Honors
Students will learn and apply principles of organizational behavior in work settings. Problems & issues facing managers will be examined using behavioral theories and concepts. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MGMT393H
Personal Development and Leadership
This course is designed to help students explore leadership characteristics and learn related skills. Each class session examines a leadership issue from personal and interpersonal levels. This format rests on the fundamental premise: effective leadership demands that leaders develop deeper understanding of themselves and those they lead. Numerous leadership topics are covered, building a comprehensive model of human attitudes, behaviors and interactions that accentuates the complexities and challenges of leadership. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Management

22MGMT393H
Personal Development and Leadership
This course is designed to help students explore leadership characteristics and learn related skills. Each class session examines a leadership issue from personal and interpersonal levels. This format rests on the fundamental premise: effective leadership demands that leaders develop deeper understanding of themselves and those they lead. Numerous leadership topics are covered, building a comprehensive model of human attitudes, behaviors and interactions that accentuates the complexities and challenges of leadership. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

22MGMT401
Leadership and Personal Development
Course designed to assist students to both explore concepts of leadership as well as to assess and develop their own skills. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22MGMT410
Managerial Effectiveness
This course covers the second half of the field of organizational behavior and focuses on group and social processes in organizations. Topics such as teams, decision making, ethics, leadership, power, and conflict are explored in a method that interweaves theory, research, and experiential learning. Prereq: 22MGMT405. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Interpersonal Processes and Teams
Course designed to provide students with greater understanding of teams and interpersonal processes in the work setting. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MGMT485
Human Resource Management
This course provides an introduction to basic human resource management functions that drive and support the changing world of work. Topics include recruitment, selection, compensation, training, performance management and strategic HRM. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MGMT593
Special Topics in Management
Specialized course taught on an experimental basis. Topic and syllabus available in Management Office when offered. Prereq: 22MGMT380. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

22MGMT596
Managing in a Competitive Environment: A Capstone Experience
Prepares students through an integrative capstone experience using a field case study or business simulation. Prereq: 22FIN352, 22QA375, 22MKTG377, 22OM385, 22INTB390. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22MGMT599
Independent Study
Prereq.: Perm. of instr. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22MGMT710
Teams: Interpersonal Processes: An Experiential Approach
Provides students with a greater understanding of teams: interpersonal processes that affect the workplace. Credit Level: G. Credit Hrs: 2.00

22MGMT712
Corporate Strategy
Focuses on both the analytical and structural framework for competitive analysis, as well as the formulation of policy and strategic decisions for the business corporation. This course focuses on the management of the total enterprise. All the basic functional areas are addressed in an integrative manner in terms of the relevance to the entire enterprise. The course emphasizes the ability to make decisions in the face of unstructured problems. Credit Level: G. Credit Hrs: 4.00

Management

22MGMT714
Leadership & Organizations
Course introduces central concepts, processes, frameworks and practices to assist the student in understanding what it means to both manage others and 'be managers'. Credit Level: G. Credit Hrs: 4.00

22MGMT715
Corporate Responsibility and Business Ethics
Explores the ethical dimensions and implications of business organizations and practices. Credit Level: G. Credit Hrs: 2.00

22MGMT717
International Business: Managing Across Cultures
This course increases students' ability to recognize cultural and national differences that impact management; deepens appreciation and understanding of these differences and, enhances work effectively with people from different cultures. Credit Level: G. Credit Hrs: 2.00

22MGMT731
Strategic Alliances: Gaining Competitive Advantage Through Collaborative Enterprise
Examines the role of strategic alliances and the creation of value including elements of coordination, cooperation and conflict. Prereq: 22MGMT712. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT732
Strategic Human Resource Management
Focus is on strategic issues and policy choices related to human resource management, as opposed to personnel management techniques. Prereq: 22MGMT712. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT733
Organizational Culture
Explores the concept of organizational culture and its relationship to performance. Prereq: 22MGMT711, 22MGMT712. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT734
Seminar in Global Management
Examines threats and opportunities in the global marketplace. Prereq: 22MGMT712. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT735
Management and Innovation
A seminar examining the process and management of innovation, from both theoretical and practical, and short- and long-term perspectives. Relevant for individuals in companies or industries that explicitly conduct R&D, develop new products or services, or experience rapid changes in environment or business practices. Credit Level: G. Credit Hrs: 4.00

22MGMT773
Human Resource Management
Central personnel concepts, functions, processes, and issues in work organizations. Some case analysis. Credit Level: G. Credit Hrs: 4.00

22MGMT777
Seminar in International Management
Examines how the management process is affected by international interdependence and helps develop global perspective for organizational decision makers. Credit Level: G. Credit Hrs: 4.00

22MGMT781
Individual Study
Individual study under the direction of a faculty member. Credit Level: Individual Credit Hrs: 1.00-4.00

22MGMT782
Special Topics in Management
In-depth study of special topics in management. Prereq: 22MGMT805. Credit Level: G. Credit Hrs: 1.00-4.00

22MGMT784
Management of Organizational Change
This course examines several key challenges associated with
Management

22MGMT784
Management of Organizational Change
Organizational change processes, and develops the necessary skills associated with effectively planning and implementing change in organizations. Credit Level: G. Credit Hrs: 4.00

22MGMT785
Leadership
Addresses theories of leadership focusing on acquiring the ability to lead, power, and the effective exercise of leadership in a managerial position. Credit Level: G. Credit Hrs: 4.00

22MGMT789
International Competitiveness
This course builds upon the analytical foundations developed in the MBA course, Competitive Analysis (22BA870). It draws upon the academic disciplines of organizational theory, international business and strategic management. Credit Level: G. Credit Hrs: 4.00

22MGMT826
Organizational Research Design and Methodology
Focuses on the process of empirical research in organizations: strategies, processes, designs and techniques for conducting research. Open to PhD students only. Credit Level: G. Credit Hrs: 3.00

22MGMT895
Special Topics in Management
This course engages students in in-depth study of specific contemporary topics in the field of management. Different topics offered each time. Credit Level: G. Credit Hrs: 3.00

22MGMT899
Research in Management
Development of independent research topic with individual faculty. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

22MGMT911
PhD Seminar in Organizational Behavior
Advanced topics course in organizational behavior, focusing on the individual and small-group perspectives. Addresses factors influencing functional and dysfunctional behavior in organizations. Grounding in the basics is assumed. Recent research contributions are emphasized. Credit Level: G. Credit Hrs: 4.00

22MGMT922
PhD Seminar in Organization Theory
Survey of the major theoretical topics and perspectives in Organization Theory, including issues of organizational effectiveness and organizational life cycles. Evaluates the contributions to organization theory of such perspectives as structural contingency theory, resource dependence, and population ecology. Credit Level: G. Credit Hrs: 4.00

22MGMT933
PhD Seminar in Strategic Management
Basic grounding in the field of strategic management, from the academic perspective. Covers history and paradigmatic development. Highlights contributions to strategic management of such related perspectives as industrial organization economics and administrative behavior. Credit Level: G. Credit Hrs: 4.00

22MGMT942
Information Technology Seminar
A doctoral-level seminar designed to expose doctoral candidates to various strategies and techniques for using information technology in their academic careers. Credit Level: G. Credit Hrs: 1.00

22MGMT943
Research Techniques Seminar
A doctoral level seminar designed to expose doctoral candidates to the requirements, strategies, and techniques necessary to successfully publish research in scholarly journals Credit Level: G. Credit Hrs: 1.00

Marketing

22MKTG280
Principles of Marketing Management
Provides an overview of the managerial areas within the marketing function. Topics include pricing, distribution, promotion and product planning. Formerly 22 MKTG 377. Prereq: 15ECON101. BoK: NA. Credit Level: U. Credit Hrs: 5.00

22MKTG280H
Principles of Marketing Management
Provides an overview of the managerial areas within the marketing function. Topics include pricing, distribution, promotion and product planning. Formerly 22 MKTG 377H. Prereq: 15ECON101. BoK: NA. Credit Level: U. Credit Hrs: 5.00

22MKTG480
Marketing Research
Methods of gathering, analyzing and reporting of information used to solve marketing management problems. Prereq: 22MKTG280, 22QA282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG485
Buyer Behavior
Provides a basic understanding of the psychological, sociological, anthropological and economic processes affecting consumer choices and examines the implications of these factors for marketing. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG490
Decision Making in Marketing
Topics include consumer and managerial decision making processes, individual and group decision making, techniques marketers use to shape decisions, and the ethical content in many marketing decisions. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG500
Direct Marketing
Direct Marketing is a form of marketing that seeks a measurable customer response (purchase, inquiry, donation) from any location. Pivoting on precise targeting and database segmentation, this most highly accountable form of marketing includes telemarketing, catalog merchandising, and direct response advertising. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG510
Services Marketing
Understanding the distinctive characteristics of services, the implication of these distinctions for marketing, the role of service quality as a determinant of customer satisfaction, and the measurement of these phenomena. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG620
Sports Marketing
Understand the sports consumer and marketing mix decisions as they

H=University Honors course.
Marketing

22MKTG520
Sports Marketing
relate to sports and sports properties. Develop evaluation and control measures to determine the effectiveness of the strategic plan. Examine additional areas of interest in sports marketing including sponsorship, the role of technology and fan development. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG572
Business-to-Business Marketing
Discusses the marketing of goods and services to businesses, governments, institutions and nonprofit organizations for use in producing consumer goods and services. Focus is given to the special character of the business market and the interfacing between the buyer's and the seller's organization. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG573
E-Marketing
Examines the Internet and related technologies as they are used for the marketing, selling and the distribution of goods and services. Develop an understanding of the opportunities and limitations of the Internet (and other information technologies) for marketing and how these technologies influence marketing strategy. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG574
Product Management
The product and brand management decisions that must be made to build and manage brand equity. The tactical elements involved in managing and developing a brand. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG575
Retailing
This course introduces students to retailing from a theoretical and managerial perspective. Major topics covered include consumer behavior, research, store location, service retailing, retail institutions, franchising, operations management, human resources management, merchandising management and retailing in a dynamic environment. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG576
Sales Management
Covers the administration and analysis of policies, personnel, territories and costs. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG577
Advertising
Essentials of advertising and advertising strategy. Trains students to think about advertising problems from the perspective of the managers responsible for solving the problems. Topics include setting objectives, copy and message strategy, media selection, budget decision and audience targeting. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG580
Professional Selling
Presents the role of professional selling within the context of the marketing and promotional mix of the firm. Guides students in their understanding of the principles of professional selling. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22MKTG585
Marketing Strategy
Frameworks and tools to solve strategic-level marketing problems. Emphasis on qualitative and quantitative analysis, integrative marketing, decision-making, and strategy formulation. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Marketing

22MKTG593
Special Topics in Marketing
Provides in-depth study of selected topics in marketing. Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. Topics could include Marketing Ethics, Pricing, Social Influence Strategies, and Services Marketing. Prereq: 22MKTG410. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG594
Current Topics in Marketing
Provides in-depth study of current topics in Marketing. Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. Topics could include marketing regulation, new media or other issues of current relevance. Prereq: 22MKTG280. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG595
Product Design Studio
Students work in multi-disciplinary teams to complete new product design field projects. Represented disciplines may include Design, Business, Engineering and others. Assignments vary depending on the client needs. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG597
Field Project in Marketing
Student teams working on real marketing problems supplied by various client organizations. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG599
Independent Study
Student independently pursues marketing topics of specific individual interest. Student must obtain a faculty supervisor and approval prior to registration. BoK: NA. Credit Level: U. Credit Hrs: 1.00-8.00

22MKTG710
Marketing Planning
Students will examine the marketing planning process, develop an awareness of major marketing problems that organization face, and cultivate proficiency through development of a marketing plan. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

22MKTG711
Marketing for Managers
Provides students with a thorough appreciation for the benefits and pitfalls of executing a customer orientation. Market segmentation is introduced as a process for opportunity analysis and prioritization in organizations. Critical factors in the management of mature products and the introduction of new products and services are considered. Major emphasis is given to those practices and procedures that yield long-term relationships with one’s customers. Credit Level: G. Credit Hrs: 4.00

22MKTG712
Marketing Research for Managers
Explores the role of marketing research in marketing management. Students do hands-on tasks to perfect their understanding of methods for collecting, analyzing, and summarizing data pertinent to solving marketing problems. Effective oral and written communication of research results is stressed. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG715
Consumer and Institutional Purchasing Behavior
Emphasizes behavioral science concepts in an application-oriented environment as they relate to the process of consumption. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00

22MKTG720
Product Development and Management
Discusses product mix, development and strategy; product-market integration, acquisitions and mergers. Prereq: 22MKTG710,

H=University Honors course.
Contemporary Issues in Marketing
Provides advanced coverage of current issues, developing fields of marketing practice, and special tools in marketing. Topics vary. Prereq: 22MKTG791, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-4.00
22MKTG783
Contemporary Issues & Tools Session III
Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG791, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00
22MKTG784
Contemporary Issues & Tools Session IV
Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG791, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00
22MKTG785
Contemporary Issues & Tools Session V
Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG791, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00
22MKTG786
Contemporary Issues & Tools Session VI
Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG791, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00
22MKTG787
Contemporary Issues & Tools Session VII
Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG791, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00
22MKTG788
Contemporary Issues & Tools Session VIII
Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG791, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00
22MKTG789
Contemporary Issues & Tools Session IX
Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG791, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00
22MKTG790
Contemporary Issues & Tools Session X
Provides advanced coverage of current issues, developing fields of marketing practice, and special decision tools in marketing. Topics vary. Prereq: 22MKTG791, 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-6.00
22MKTG791
Master of Science In Marketing Capstone I
Capstone Field Project for MS Marketing degree. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 4.00
22MKTG792
Master of Science in Marketing Capstone II
Capstone Field Project for MS Marketing degree. Prereq: 22MKTG791. Credit Level: G. Credit Hrs: 4.00
22MKTG793
Product Design Studio
Students work in multi-disciplinary teams to complete new product design field projects. Represented disciplines may include Business, Design, Engineering and others. Assignments vary depending on client needs. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-8.00
22MKTG794
Field Project in Marketing
Student teams working on real marketing problems supplied by various client organizations. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-8.00
22MKTG800
Marketing Management
Examines the marketing task, critically analyzing the marketing process, developing an awareness of the major marketing problems faced by organizations and cultivating proficiency in developing marketing strategies and tactics. MBA requirement. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 3.00
22MKTG841
Special Topics in Marketing
Provides in-depth study of selected topics in marketing. Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. Topics could include Marketing Ethics, Pricing, Social Influence Strategies, Direct Marketing and Services Marketing. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-4.00
22MKTG842
Special Topics in Marketing
Provides in-depth study of selected topics in marketing. Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. Topics could include Marketing Ethics, Pricing, Social Influence Strategies, Direct Marketing and Services Marketing. Prereq: 22MKTG710, 22MKTG711. Credit Level: G. Credit Hrs: 1.00-4.00
Marketing

22MKTG879 Marketing Models
Offers a treatment of marketing problems emphasizing a quantitative approach. Credit Level: G. Credit Hrs: 3.00

22MKTG887 Advanced Measurement and Analysis Methods
Covers applications of psychometric measurement theory to business research situations. Topics include validity, reliability, factor analysis and structural equations modeling. Designed to teach students how to conduct academic research. Credit Level: G. Credit Hrs: 3.00

22MKTG889 Pro Seminar in Marketing
Presentations of individual faculty research at the PhD level. Credit Level: G. Credit Hrs: 3.00

22MKTG891 Independent Study in Marketing
Student independently pursues marketing topics of specific individual interest. Student must obtain a faculty supervisor and approval prior to registration. Credit Level: G. Credit Hrs: 1.00-6.00

22MKTG892 Linear Models
Provides an overview of linear models, regression and correlation, and ANOVA as applied to marketing. Credit Level: G. Credit Hrs: 3.00

22MKTG893 Multivariate Statistics
Offers a comprehensive treatment of multivariate statistics, including regression, discriminant, factor, canonical, and cluster analysis. Prereq: 22MKTG882. Credit Level: G. Credit Hrs: 3.00

22MKTG895 Special Topics in Marketing
Provides in-depth study of selected topics in marketing. Special offerings under this course number will be publicized on bulletin boards and by classroom announcement. Topics could include Marketing Ethics, Pricing, Social Influence Strategies, Direct Marketing and Services Marketing. Credit Level: G. Credit Hrs: 1.00-6.00

22MKTG898 Behavioral Seminar in Marketing
Offers an analysis of theories and current research in the field. Credit Level: G. Credit Hrs: 3.00

22MKTG971 Research in Marketing
Development of independent research topic with individual faculty. Credit Level: G. Credit Hrs: 1.00-15.00

22MKTG981 MS/MBA Thesis Research
Variable cr. Credit Level: G. Credit Hrs: 1.00-6.00

22MKTG991 PhD Dissertation Research
Variable cr. Credit Level: G. Credit Hrs: 1.00-15.00

Operations Management

22OM475 Quality Management
22OM380, BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM476 Operations Planning and Scheduling
Introduces the student to planning and control as practiced in state-of-the-arts firms. The principles of inventory and capacity are covered. Prereq: 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM480 Project Management and New Product Development
Explores the issues of Project organization, budgeting, control, leadership, risk management, new product development and conflict resolution throughout the life cycles of a project. Students will consider resource allocation and scheduling using PER/CPM and Project Mgt. software and are introduced to PMI's PMBOK. Prereq: 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM481 Supply Chain Management
Supply chain management deals with the flow of goods and information through a production or distribution network to ensure that the right products are delivered to the right place in the right quantity at the right time to meet customer expectations. The course covers both strategic and operational aspects of managing a supply chain. Possible topics include network design, logistics, inventory management, coordination and contracting. Prereq: 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM488 Service Sector Operations
An introduction to managing service businesses, primarily from an operational perspective. Topics include capacity and demand management, the use of queuing concepts, facility location and layout, designing processes and systems for good customer experience, aligning the front and back office, managing customer service operations, and methods for designing innovative new services. Prereq: 22OM380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM490 Forecasting and Risk Management
A survey of analytical techniques used to assist in managing under uncertainty. Topics include time series and other forecasting techniques, as well as Monte Carlo simulation to assess the risk associated with managerial decisions. Prereq: 22QA380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM585 Operations Policy and Strategy
Case treatment of operations strategy and policy at the executive level. As the capstone, integrative course, emphasis is placed on synthesis, as well as analysis, and oral and written communication. Prereq: 22OM475, 22OM476. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM593 Hot Topics in Operations Management
Contemporary OM topics will be discussed in this irregularly scheduled seminar-style course. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22OM594 Readings In Operations Management
Advanced studies in selected issues. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22OM595 Research In Operations Management
Structured research in OM. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22OM596 Guided Study in Operations Management
Individual study under the direction of a faculty member. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

H=University Honors course.
Operations Management

22OM711
Management of Operations
Introduces basic operations principles through case studies and explores major operations areas. Areas of concentration are decisions and activities involving process design, the use and control of resources, scheduling and quality management. Prereq: 22QA711, 22QA712, 22QA713. Credit Level: G. Credit Hrs: 4.00

22OM744
International Operations Strategy
This integrative course emphasizes case analysis and state of the art discussion of operations management challenges. The course particularly focuses on new methods, principles, and technologies that leverage the operations function for competitive advantage. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM761
Project Management
Explores the fundamental and advanced concepts in project management including project initiation, justification, design, planning, budgeting, and control. It pays detailed attention to conflicts and conflict resolution, and scheduling and controlling using PERT/CPM and project management software. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM762
Managing Service Operations
Examines the problems facing managers in various service industries and provides strategic, managerial, and operational tools and techniques for improving how service firms operate. The course employs a combination of conceptual, analytical, case study, and field study approaches to investigate contemporary service operations issues. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM771
Managing for Quality and High Performance
Provides students with knowledge of several advanced topics in total quality management (TQM), as well as experience in applying TQM tools and principles in organizations. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM772
Six Sigma & Process Improvement
This course focuses on fundamental concepts and methods of statistical thinking and process improvement in manufacturing and service organizations. Prereq: 22OM711, 22QA712. Credit Level: G. Credit Hrs: 2.00

22OM781
Individual Study
Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22OM782
Special Topics in Operations Management
In-depth study of special topics in Operations Management. Credit Level: G. Credit Hrs: 1.00-4.00

22OM783
Supply Chain Strategy and Analysis
Presents an overview of issues relating to the design and operation of supply chains. Information is presented as a mix of technical models and applied case studies. Topics in inventory, transportation, and supply chain collaboration are covered. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM784
Supply Chain Models
Focuses on technical models and techniques used to design and evaluate the performance of supply chains. Models include logistical network design and multiechelon inventory theory. Prereq: 22OM711, 22QA712. Credit Level: G. Credit Hrs: 2.00

Operations Management

22OM785
Enterprise Resource Planning
This course focuses on the methodologies and practices of ERP as a complete enterprise wide business solution. An ERP system consists of software support modules such as: marketing and sales; field service; product design and development; production and inventory control; procurement; distribution; industrial facilities management; process design and development; manufacturing; quality; human resources; finance and accounting; and information services. In this course we will focus on the Production Planning (PP) and Materials Management (MM) modules of an ERP system, with peripheral attention to other business functions. Prereq: 22OM711. Credit Level: G. Credit Hrs: 4.00

22OM786
Forecasting and Time Series Analysis
Univariate Box-Jenkins time series modeling for stationary and nonstationary processes. Fore-casting seasonal and nonseasonal time series. Special forecasting techniques such as transfer function modeling, and intervention analysis. Prereq: 22QA721. Credit Level: G. Credit Hrs: 4.00

22OM895
Special Topics in Operations Management
Varies subjects of topical interest in operations. Credit Level: G. Credit Hrs: 1.00-4.00

22OM899
Research in Operations Management
Perm. of instr. Credit Level: G. Credit Hrs: 1.00-15.00

22OM971
Research in Management
For PhD students only. Credit Level: G. Credit Hrs: 1.00-15.00

22OM981
MBA Thesis Research
Var. credit. Credit Level: G. Credit Hrs: 1.00-15.00

22OM991
PhD Dissertation Research
Var. cr. Credit Level: G. Credit Hrs: 1.00-15.00

Professional Development

22PDS02
Professional Development II: Business Career Planning and Placement
Self-assessment, resume writing, career exploration, and interviewing. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Product Information and Supply Management

22PRSM410
Product Information and Supply Management I
Exposes the complex exchange systems that comprise the network of organizations and activities which add value to products. Students will develop a global system perspective as designers, leaders and custodians of the network. Prereq: 22FIN352, 22QA375, 22MTG377, 22OM385, 15ECON271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22PRSM593
Special Topics in Product Information and Supply Management
Provides in-depth study of selected topics. BoK: NA. Credit Level: U. Credit Hrs: 1.00

22PRSM598
Product Information and Supply Management II
Provides a case-based managerial course with a focus on integrating the marketing efforts of vertical players whose assumed common objective is to maximize cost-efficiencies and deliver net value to their customers, using collaborative designs. Field projects are used to apply skills and acquire experiential learning. Prereq: 22PRSM410. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Product Information and Supply Management

22PRSM599 Guided Study in Product Information and Supply Management
Individual study under direction of a faculty member. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

Quantitative Analysis

22QA251 Mathematical Statistics I
Foundations of probability, discrete and continuous random variables, special probability distributions. Prereq: 15MATH253, 32IT141. BoK: QR. Credit Level: U. Credit Hrs: 3.00

22QA252 Mathematical Statistics II
Second course in sequence with Mathematical Stat I. Prereq: 22QA251. BoK: QR. Credit Level: U. Credit Hrs: 3.00

22QA281 Business Statistics I
Develops fundamental knowledge and skills for applying statistics in business decision making. Part I topics include descriptive statistics, probability and sampling distribution. Formerly 22 QA 241. BoK: QR. Credit Level: U. Credit Hrs: 4.00

22QA281H Business Statistics I
Develops fundamental knowledge and skills for applying statistics to business decision making. Part I topics include descriptive statistics, probability and sampling distribution. Formerly 22 QA 241H BoK: QR. Credit Level: U. Credit Hrs: 4.00

22QA282 Business Statistics II
Develops fundamental knowledge and skills for applying statistics in business decision making. Part II topics include hypothesis testing, simple and multiple regression and experimental design. Formerly 22 QA 242. Prereq: 22QA281. BoK: QR. Credit Level: U. Credit Hrs: 4.00

22QA282H Business Statistics II
Develops fundamental knowledge and skills for applying statistics in business decision making. Part II topics include hypothesis testing, simple and multiple regression and experimental design. Formerly 22 QA 242H. Prereq: 22QA281H. BoK: QR. Credit Level: U. Credit Hrs: 4.00

22QA345 Mathematical Statistics III
Third course in sequence with Mathematical Stat I, II. Prereq: 22QA252. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22QA380 Business Analytics
Analytical approaches to decision making. Topics include optimization, simulation models and other analytical techniques, such as PERT/CPM, decision analysis and waiting line models. Prereq: 22QA281, 22QA282. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA380H Business Analytics - Honors
Analytical approach to decision making. Topics include optimization, simulation models and other analytical techniques, such as PERT/CPM, decision analysis and waiting line models. Prereq: 22QA282H, 22QA281H. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA490 Forecasting and Risk Analysis
This course covers the basic concepts and approaches to forecasting and risk analysis in business, including regression, exponential smoothing, ARIMA models and Monte Carlo simulation. Prereq: 22QA380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Quantitative Analysis

22QA550 Optimization Modeling
Model formulation, graphical analysis, computer solution and application for linear, nonlinear, continuous, integer, deterministic, and probabilistic mathematical optimization models. Required projects in modeling and solving applications. Prereq: 22QA380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA571 Simulation Modeling
Building simulation models of complex dynamic, stochastic, discrete-event systems using high level simulation software. Topics include modeling, input, and output analysis and managing simulation projects. Prereq: 22QA242. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA585 Applications Development Using VBA
This course covers the use of visual basic for application for the development of applications of management science models for planning and decision support in a spreadsheet environment. Prereq: 22QA380. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22QA596 Guided Study In Quantitative Analysis
Project and research work undertaken by a student with the approval and supervision of a faculty member. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

22QA701 Business Statistics
Introduction to statistical and probabilistic analysis with focus on practical decisions and risk using quantitative models & Microsoft Excel. Topics include descriptive and graphical statistical methods, sampling and sampling distributions, estimation and hypothesis testing. This course assumes prior knowledge of Excel. This course is the first in a required series of core quantitative analysis courses in the full-time MBA curriculum. The subsequent courses are QA 702 and QA 703. Credit Level: G. Credit Hrs: 2.00

22QA702 Decision Models for Managers
This course is the second in a required sequence of core quantitative analysis in the full-time MBA curriculum that provides an introduction to statistical and probabilistic analysis with a focus on practical decisions and risk analysis using quantitative models and Microsoft Excel. The topics covered in this course and QA 701 include descriptive and graphical statistical methods, sampling and sampling distributions, estimation, hypothesis testing, analysis of variance, regression, decision modeling and simulation. This course assumes prior basic knowledge of Excel. The third required course in this sequence is QA 703. Prereq: 22QA701. Credit Level: G. Credit Hrs: 2.00

22QA703 Optimization Models for Managers
Overview of linear, integer and nonlinear optimization models in business, focusing on modeling, solution and interpretation of results. Substantial use of spreadsheet modeling and analysis. This course is the third in a required sequence of core quantitative analysis courses in the full-time MBA curriculum that provides an introduction to statistical and probabilistic analysis with a focus on practical decisions and risk analysis using quantitative models and Microsoft Excel. The first two courses in the sequence are QA 701 and QA 702. Prereq: 22QA701, 22QA702. Credit Level: G. Credit Hrs: 2.00

22QA711 Statistics and Decision Models for Managers
Introduction to statistical and probabilistic analysis with focus on practical decisions and risk using quantitative models and Microsoft Excel. Topics include descriptive and graphical statistical methods, sampling and sampling distributions, estimation, hypothesis testing, analysis of variance, regression, decision modeling and simulation. Assumes prior basic knowledge of Excel. Credit Level: G. Credit Hrs: 4.00
Quantitative Analysis

22QA711
Statistics and Decision Models for Managers
Introduction to statistical and probabilistic analysis with focus on practical decisions and risk using quantitative models and Microsoft Excel. Topics include descriptive and graphical statistical methods, sampling and sampling distributions, estimation, hypothesis testing, analysis of variance, regression, decision modeling, and simulation. Assumes prior basic knowledge of Excel. Credit Level: G. Credit Hrs: 4.00

22QA712
Optimization Models for Managers
Overview of linear, integer, and nonlinear optimization models in business, focusing on modeling, solution, and interpretation of results. Substantial use of spreadsheet modeling and analysis. Prereq: 22QA711. Credit Level: G. Credit Hrs: 2.00

22QA721
Methods of Statistics
A survey of statistical methodologies useful for research in a variety of disciplines. Estimation, significance testing, regression, ANOVA and computer applications. Credit Level: G. Credit Hrs: 4.00

22QA722
Regression Analysis
Estimation and inference making using regression models; method of least squares, formal methods of inference, model diagnostics based on analysis of residuals, use of dummy variables, variable selection and model building. Introduction to logistic models. Prereq: 22QA721. Credit Level: G. Credit Hrs: 4.00

22QA723
Sample Survey
Statistical aspects of sample survey. Survey designs; simple random, stratified, cluster, multi-stage, and probability proportional to size sampling. Estimation methods for means, totals, ratios, and proportions. Planning and implementing surveys. Prereq: 22QA721. Credit Level: G. Credit Hrs: 4.00

22QA724
Multivariate Methods
Multivariate normal distribution, its parameters and model diagnostics. Statistical analyses involving multivariate means, covariance and correlation matrices; Special multivariate techniques; principle components, canonical, discriminant, and factor analyses. Prereq: 22QA722, 22QA731. Credit Level: G. Credit Hrs: 4.00

22QA725
Forecasting and Time Series Analysis
Univariate Box-Jenkins time series modeling for stationary and nonstationary processes. Forecasting seasonal and nonseasonal time series. Special forecasting techniques such as transfer function modeling, and intervention analysis. Prereq: 22QA721. Credit Level: G. Credit Hrs: 4.00

22QA726
Design of Experiments
Basic concepts of experimental design. Linear statistical models; analysis of variance and estimation for completely randomized and various blocked designs; analysis of covariance; analysis of unbalanced data; random and mixed models; repeated measures, split-plot, and nested designs. Prereq: 22QA722. Credit Level: G. Credit Hrs: 4.00

22QA727
Data Mining
Hands-on data analysis experiences on real world data with varying topics from year to year using major statistical software, such as SAS and Splus. Case studies involving data management and model fitting; model interpretation and diagnostics. Model approaches including exploratory data analysis; linear models; generalized linear models; classification and regression trees; kernel, splines, and additive models. Prereq: 22QA722. Credit Level: G. Credit Hrs: 4.00

Quantitative Analysis

22QA731
Probability
A solid conceptual foundation for students who require a moderately rigorous treatment of probability. Random variables, stochastic independence, probability distributions, moments, functions of random variables, asymptotic statistics. Credit Level: G. Credit Hrs: 4.00

22QA732
Fundamentals of Statistical Inference
Foundations in statistical estimation and hypothesis testing from frequentist and Bayesian perspectives; sufficiency, efficiency, minimum variance and unbiased estimation, maximum likelihood estimation, likelihood ratio testing. Prereq: 22QA731. Credit Level: G. Credit Hrs: 4.00

22QA733
Statistical Decision Theory and Bayesian Analysis
Elements of the basic decision theoretic paradigm from the Bayesian and frequentist view point. Introduction to game theory, utility theory, and subjective probability. Bayesian statistical methods. Prereq: 22QA731, 22QA732. Credit Level: G. Credit Hrs: 4.00

22QA750
Optimization Modeling
Model formulation, graphical analysis, computer solution and application, for linear, nonlinear, continuous, integer, deterministic, and probabilistic mathematical optimization models. Required projects in modeling and solving applications. Prereq: 22QA712. Credit Level: G. Credit Hrs: 4.00

22QA751
Optimization Analysis
Solution techniques and analyses for linear, non-linear, network and integer optimization models including: optimization criteria, simplex routines, duality, sensitivity; Lagrangian duality, gradient, and penalty methods for constrained and unconstrained nonlinear models; and branch-and-bound and cutting plane methods for integer models. Prereq: 22QA750. Credit Level: G. Credit Hrs: 4.00

22QA752
Advanced Topics in Optimization
Solution techniques and analyses for linear, non-linear, network and integer optimization models including: optimization criteria, simplex routines, duality, sensitivity; Lagrangian duality, gradient, and penalty methods for constrained and unconstrained nonlinear models; and branch-and-bound and cutting plane methods for integer models. Prereq: 22QA751. Credit Level: G. Credit Hrs: 4.00

22QA760
Stochastic Modeling
Formulation and analysis of discrete and continuous Markov chains, Poisson process, and birth-death processes. Application in queuing, inventory, and reliability. Required project in modeling and solving applications. Prereq: 15MATH264, 22QA731. Credit Level: G. Credit Hrs: 4.00

22QA761
Advanced Topics in Stochastic Modeling
Construction and application of stochastic models including Markov processes, birth and death processes, branching and queuing processes; Poisson process, Gaussian process, Brownian motion; introduction to stochastic calculus. Prereq: 22QA760. Credit Level: G. Credit Hrs: 4.00

22QA770
Risk Modeling
Static simulation models using Monte Carlo simulation to assess risk with applications in the functional areas of business. Prereq: 22QA712. Credit Level: G. Credit Hrs: 2.00

22QA771
Simulation Modeling
Building simulation models of complex dynamic, stochastic, discrete-event systems using high level simulation software. Topics include modeling, input and output analysis and managing simulation projects.

H=University Honors course.
Quantitative Analysis

22QA771 Simulation Modeling
Prereq: 22QA711. Credit Level: G. Credit Hrs: 4.00

22QA772 Simulation Analysis
Probabilistic and statistical underpinnings of simulation modeling. Topics include random number generators, generating random variates and processes, design and analysis of simulation experiments, variance reduction techniques, gradient estimation and simulation optimization. Prereq: 22QA771. Credit Level: G. Credit Hrs: 4.00

22QA781 Individual Study
Individual study under the direction of a faculty member. Credit Level: G. Credit Hrs: 1.00-4.00

22QA782 Special Topics in QA
In-depth study of special topics in Quantitative Analysis. Credit Level: G. Credit Hrs: 1.00-4.00

22QA786 Case Studies in Management Science
Cases and applications of group-oriented operations research for real-world management applications. Prereq: 22QA750. Credit Level: G. Credit Hrs: 4.00

22QA895 Seminar in Quantitative Analysis
Recent journal articles dealing with the state-of-the-art development will be covered. Variable cr. Credit Level: G. Credit Hrs: 1.00-6.00

22QA971 Research in Quantitative Analysis
Variable cr. Credit Level: G. Credit Hrs: 1.00-15.00

22QA981 MS Thesis Research
Variable cr. Credit Level: G. Credit Hrs: 1.00-9.00

22QA991 PhD Dissertation Research
Variable cr. Credit Level: G. Credit Hrs: 1.00-15.00

Real Estate

22RE391 Principles of Real Estate

22RE395 Real Estate Finance
This course focuses on the technical skills required to value, finance and structure real estate transactions. Topics include basic mortgage calculation and analysis using FRM and ARM examples; investment analysis for existing income properties (Proforma cash flow projections, financial ratios, alternative debt and equity structures and risk analysis); ownership, taxation and financial structures; financing of real estate development; and the securitization of debt and equity interests in real estate (REITs and CMBS). Prereq: 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Real Estate Finance

22RE400 Property and Asset Management
The course is designed to introduce the student to the field of real estate property management by reviewing the basic functions, roles and responsibilities of the property manager and the differing property types managed. Within the scope & responsibilities of the property manager, we shall also study tenant, asset manager and owner relations, landlord/tenant laws, lease forms, building maintenance and capital replacement issues, and gain on-site insights of key property cost centers such as roofs, paving, mechanical systems and property tax appeals. Prereq: 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22RE492 Real Estate Valuation
This course develops the theory and application of methods to value real property. Specifically, the course examines systematic methods to value residential and income producing property, influences upon market value, and trends in the appraisal industry. Prereq: 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22RE497 Real Estate Law
Nature of ownership rights; sale of land; broker-agency relationship; real estate finance; landlord-tenant relationship, control of land use; commercial development; succession of estates. Prereq: 22BLAW271, 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22RE593 Special Topics in Real Estate
Usually offered as a research and writing class with each student selecting their own topics to research. Emphasis on research and writing skills. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

22RE596 Guided Study in Real Estate
Individual study under the direction of a faculty member. Variable cr. Offered ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 3.00

22RE598 Real Estate Development
The purpose of this course is to explore different negotiation strategies and models within the context of well prepared real estate and development projects, and use whatever methodologies are appropriate in preparation for the negotiation cases. Prereq: 22RE395, 22RE391. BoK: NA. Credit Level: U. Credit Hrs: 4.00

22RE731 Real Estate Analysis
This is the introductory real estate course. It focuses on urban economics and real estate market analysis. Topics include the determination of land use, rents, and values and the impact of transportation costs on these. An introduction to valuation, financing and investment methods is also provided. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22RE742 Real Estate Finance and Investment
This course combines two courses in five-week modules, real estate finance and real estate investment. It focuses upon technical skills required to analyze and finance income producing property. Proforma cash flow projections, financial ratios, debt financing sources and structures are covered including the CMBS market. Real estate investment risk analysis portfolio theory, as well as REITs and current real estate capital market trends are also examined. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22RE750 Real Estate Cases, Development and Negotiation
This course covers real estate feasibility analysis, development,
Real Estate

22RE750  
Real Estate Cases, Development and Negotiation  
leasing, and negotiation within a case study framework. Teams may engage in negotiation exercises using real life cases. Special projects and speakers are also brought into this course. Prereq: 22FIN711. Credit Level: G. Credit Hrs: 4.00

22RE781  
Individual Study  
Individual study under the direction of a faculty member Credit Level: G. Credit Hrs: 1.00-4.00

22RE851  
Real Estate Management Strategies, Negotiations, & Case Analysis  
Management of development, leasing, negotiation, & marketing activities in a real estate firm. Case practices. Prereq: 22FIN811. Credit Level: G. Credit Hrs: 3.00
Arts Administration

(16) College-Conservatory of Music

2008 - 2009

College-Conservatory of Music

Arts Administration

16AADM560
Independent Study
Practicum covers the basic operations of performing arts institutions by assigning students to specific tasks with practicing arts organizations or in research study related to same. Students work as assigned in the areas of publicity, concert management, marketing, grant and funding projects, tour arrangements, etc. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16AADM630
Special Topics
Topics established every quarter by Department/Division. Permission of instructor and division. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16AADM660
Arts Administration for Non-Majors
A survey of the structure, governance, and management problems of arts institutions, including finance management, fund raising, marketing, and legal issues. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16AADM771
Introduction to Arts Administration
An overview of the problems and issues involved in managing a nonprofit cultural organization in America. Credit Level: G. Credit Hrs: 1.00

16AADM781
Funding and Grants
Studies methods of securing funds from private and public sector sources. Grants research and writing included. Credit Level: G. Credit Hrs: 3.00

16AADM788
Marketing the Arts
Survey of marketing theories and practices as they apply to arts products and services. Emphasis placed on applying marketing principles in the strategic planning process. Credit Level: G. Credit Hrs: 3.00

16AADM798
Performing Arts Production Management
Survey of concepts and management practices as they apply to venue and production management, including the legal and operational aspects of performing arts institutions. Credit Level: G. Credit Hrs: 3.00

16AADM799
Museum Management
An introduction to the basic principles, concerns, and functions of museum management including problems of collections, exhibits, conservation, and education. Credit Level: G. Credit Hrs: 3.00

16AADM801
Financial and Strategic Management
Survey of financial and strategic management principles, theories, and practices as they apply to arts organizations. Emphasis placed upon the development of budgets and financial reporting and control procedures. Credit Level: G. Credit Hrs: 3.00

16AADM802
Organization Structure and Staffing
An application of the principles of organizational management for arts administration, with particular focus on board of trustees, relationships

Arts Administration

16AADM802
Organization Structure and Staffing
with artistic staff, and volunteers, and the legal aspects of HR management and contracts. Prereq: 16AADM801. Credit Level: G. Credit Hrs: 3.00

16AADM803
Public Policy and the Arts
A study of the public policies and public agencies which affect the nonprofit cultural organizations in America including tax policies, censorship, federal-state conflicts and cooperative programs, advocacy and political action, and the impact of funding agency programs. Credit Level: G. Credit Hrs: 3.00

16AADM811
Public Relations and Communications
Through a series of exercises in written and oral communication, the course enhances a student's ability to express themselves clearly and efficiently and to successfully manage a public relations program for an arts organization. Credit Level: G. Credit Hrs: 3.00

16AADM812
Arts and Education
Survey of current education programs and practices in professional arts organizations as they relate to the role of the arts in elementary and secondary schools. Emphasis placed upon cooperative programs among arts organizations, schools, and school systems to integrate the arts into the general curriculum. Credit Level: G. Credit Hrs: 3.00

16AADM813
Internet Marketing and PR for the Arts
Covers best practices of arts marketing, public relations, and other arts administration concentration as they relate to using the internet and database management. Prereq: 16AADM788. Credit Level: G. Credit Hrs: 3.00

16AADM840
Internship
Field experience in a given arts field with a producing organization. Credit Level: G. Credit Hrs: 1.00-18.00

16AADM860
Independent Study
In-depth study of a topic in arts administration selected by the student in consultation with a member of the faculty. Credit Level: G. Credit Hrs: 1.00-9.00

16AADM870
Current Issues Forum
Weekly roundtable discussion of current issues in arts management led by faculty in the program and guest speakers. Credit Level: G. Credit Hrs: 0.00-1.00

16AADM872
Legal Aspects of Arts Administration
The legal problems of managing a nonprofit cultural organization. A basic introduction to copyright law, contracts, employment issues, tax structures, and other legal and business concerns of the Arts Manager. Credit Level: G. Credit Hrs: 4.00

16AADM880
Research Problems in the Arts
Each student is asked to examine, independently, research and develop an arts-related topic based on internship experiences. The study is used as the basis of the graduate student's oral examination. Credit Level: G. Credit Hrs: 1.00-9.00

H=University Honors course.
Arts Administration

16AADM899
Master's Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

Bassoon

16BSN100
Bassoon Major Study
Selected studies for the refinement of basic techniques; development of facility in middle and upper range and in tenor clef; refinement of vibrato; extension of phrasing concepts; study of major and minor scales in two octaves. Reed-making. Weissenborn, 50 Studies; Vaulet, 20 Studies; Oubradous, Enseignement I; Telemann, Sonata in f; Stevens, 3 Pieces; Phillips, Concert-piece; Vivaldi, Concert F #1, #5, #7. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16BSN110
Bassoon Concentration
First year study for bassoon students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16BSN120
Bassoon Secondary
First-year secondary study in bassoon as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16BSN200
Bassoon Major Study
Selected studies for increased facility in upper range; all scales at increased speeds; tonic arpeggios in all keys. Independent reed-making required. Orchestral studies. Milde, Concert Studies I; Orefici, Melodic Studies; Jancourt, 26 Melodic Studies; Oubradous, Enseignement II; Hindemith, Sonata; Mozart, Concerto; Vivaldi, Concerti F. #13, #17; Fasch, Sonata; David, Concertino. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16BSN210
Bassoon Concentration
Second-year study for bassoon students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16BSN220
Bassoon Secondary
Second-year secondary study in bassoon as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16BSN300
Bassoon Major Study
Selected studies for increased facility in extreme ranges; concentration on musical and stylistic concepts; integration of previously studied skills; all scales and arpeggios with increased range and speed of articulation; major scales in thirds; extension of upper range. Orchestral studies and chamber music excerpts. Milde, Concert Studies I and II; Gambaro, 18 Studies; Oubradous, Enseignement III; Weber, Andante and Hungarian Fantasy; Osborne, Rhapsody; Elter, Sonata. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16BSN310
Bassoon Concentration
Third-year study for bassoon students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16BSN320
Bassoon Secondary
Third-year secondary study in bassoon as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16BSN400
Bassoon Major Study
Selected studies for concentration on musical and stylistic concepts; beginning study of double tonguing; all scales and arpeggios at increased speeds; Orefici, Bravura Studies; Giampieri, Daily Studies for Perfection; Jacob, Concerto; Orchestral studies; Jancourt, 26 Melodic Studies; Oubradous, Enseignement III; Weber, Andante and Hungarian Fantasy; Osborn, Rhapsody; Elter, Sonata. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16BSN410
Bassoon Concentration
Fourth-year study for bassoon students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16BSN420
Bassoon Secondary
Fourth-year secondary study in bassoon as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16BSN500
Bassoon Major
Additional study for undergraduate bassoon majors who have completed the basic degree requirements; offered for undergraduate and graduate bassoon majors during the Summer Session. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16BSN510
Bassoon Concentration
Additional study in bassoon for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level bassoon students during the Summer Session. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16BSN530
Bassoon Elective
Nonrequired private study in bassoon; requires permission of the department and the college. BoK: FA. Credit Level: U. Credit Hrs: 1.00-2.00

16BSN560
Independent Study
In-depth study of a topic related to the bassoon, selected by the student in consultation with a member of the faculty. Permission of instructor and division. BoK: FA. Credit Level: U. Credit Hrs: 1.00-12.00

16BSN680
Bassoon Master Class
Forum for performance and discussion of topics related to bassoon performance. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16BSN800
Bassoon Graduate Major Study
Selected studies for continued refinement of previous skills. Memorized solos from orchestral and chamber music works. Bozza, Etudes Journalieres; Orefici, Bravura Studies; Piard, Etudes sur le Style; Giampieri, Daily Studies for Perfection; Mozart, Concerto; Bach, Unaccompanied Cello Suites; Villa-Lobos, Ciranda das Sete Notas; Jolivet, Concerto. Credit Level: G. Credit Hrs: 4.00

16BSN810
Bassoon Concentration
Master's level study for students accepted for a cognate in bassoon performance. Credit Level: G. Credit Hrs: 2.00

16BSN820
Bassoon Secondary
Secondary study in bassoon for master's-degree students. Credit Level: G. Credit Hrs: 1.00

16BSN850
Artist Diploma in Bassoon
First-year major study in bassoon for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

H=University Honors course.
Bassoon

16BSN855
Artist Diploma Recital
Public performance by an artist diploma student in bassoon of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16BSN880
Master Recital
Public performance by a master’s degree student in bassoon of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16BSN895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16BSN899
Master’s Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16BSN900
Bassoon Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire similar to listing under Graduate Major Study above. Credit Level: G. Credit Hrs: 4.00

16BSN910
Bassoon Concentration
Doctoral-level study for students accepted for a cognate in bassoon performance. Credit Level: G. Credit Hrs: 2.00

16BSN920
Bassoon Secondary
Secondary study in bassoon for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16BSN930
Bassoon Elective
Nonrequired private study in bassoon for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16BSN950
Artist Diploma in Bassoon
Second-year major study in bassoon for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16BSN960
Bassoon Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16BSN970
Doctoral Recital
Public performance by a doctoral student in bassoon of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16BSN980
Lecture Recital
Combined public lecture and performance of a selected topic in the bassoon repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16BSN990
DMA Document
Research and preparation of the final written project for the DMA degree in bassoon; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Clarinet

16CLAR100
Clarinet Major Study
Technical requirements: development of the embouchure, articulations, hand and finger positions, breath support, reed preparation, tone studies, scales and intervals. Studies by Rose, Klos Ô , Lazarus, Rode or Perier. Selected repertoire: von Weber -- Concertino or Concerto in F Minor, Karl Stamitz -- Concerto in B-Flat, Tartini-Jacob -- Concertino, Guilhaud -- First Concertino, Rossini -- Theme and Variations, Hindemith -- Pliner Musiktag. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16CLAR110
Clarinet Concentration
First-year study for clarinet students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16CLAR120
Clarinet Secondary
First-year secondary study in clarinet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16CLAR200
Clarinet Major Study
Technical requirements: continued emphasis on tone production, phrasing, transposition, and intonation; refinement of articulation. Studies by Capelle, Klos Ô , Stark, and Uhl; introduction to orchestral repertoire. Selected repertoire von Weber -- Concerto. In E-Flat, Schumann -- Fantasy-Pieces, Bernstein -- Sonata, Spohr -- Concerti Nos. I and III, Milhaud -- Trio, Solos de Concours by Messager, Rabaud, or works of similar difficulty. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16CLAR210
Clarinet Concentration
Second-year study for clarinet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16CLAR220
Clarinet Secondary
Second-year secondary study in clarinet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16CLAR300
Clarinet Major Study
Continued concentration on fundamentals of technique. Orchestral repertoire of all periods; style in orchestral playing. Studies by Jean-Jean and Lazarus. Selected repertoire Mozart -- Trios, Symphony Concertante; Hindemith -- Sonata for Clarinet, Quartet; Beethoven -- Clarinet Trio; Brahms -- Sonata in F Minor; Debussy -- Rhapsody. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16CLAR310
Clarinet Concentration
Third-year study for clarinet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16CLAR320
Clarinet Secondary
Third-year secondary study in clarinet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16CLAR400
Clarinet Major Study
Study of orchestral repertoire; specialized technique of orchestral playing; audition preparation. Selected repertoire: Mozart -- Concerto in A Major, K. 622, Clarinet Quintet; Brahms -- Sonata in E-Flat Major, Quintet in B Minor; Stravinsky -- Three Pieces, L’Histoire du Soldat; Bartôk -- Contrasts; Dahl -- Concerto a TrÔ. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16CLAR410
Clarinet Concentration
Fourth-year study for clarinet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16CLAR410</td>
<td>Clarinet Concentration in the music</td>
<td>2.00</td>
<td>Educational program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
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<td></td>
<td>Education program. BoK: FA. Credit</td>
<td></td>
<td>Level: U. Credit Hrs: 2.00</td>
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<tr>
<td></td>
<td>Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>16CLAR420</td>
<td>Clarinet Secondary</td>
<td></td>
<td>Fourth-year secondary study in clarinet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16CLAR500</td>
<td>Clarinet Major</td>
<td></td>
<td>Additional study for undergraduate clarinet majors who have completed the basic degree requirements; offered for undergraduate and graduate clarinet majors during the Summer Session. BoK: FA. Credit Level: U. Credit Hrs: 1.00-2.00</td>
</tr>
<tr>
<td>16CLAR510</td>
<td>Clarinet Concentration</td>
<td></td>
<td>Additional study in clarinet for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level clarinet students during the Summer Session. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16CLAR530</td>
<td>Clarinet Elective</td>
<td></td>
<td>Nonrequired private study in clarinet; requires permission of the department and the college. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-2.00</td>
</tr>
<tr>
<td>16CLAR560</td>
<td>Independent Study</td>
<td></td>
<td>In-depth study of a topic related to the clarinet, selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U. G. Credit Hrs: 2.00-12.00</td>
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<tr>
<td>16CLAR670</td>
<td>Clarinet Studio Class</td>
<td></td>
<td>Survey and study of repertoire and pedagogical methods for the clarinet. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16CLAR800</td>
<td>Clarinet Graduate Major Study</td>
<td></td>
<td>Preparation of two recital programs, one to be performed in public. Graduate repertoire to be selected from works of advanced technical difficulty as approved by the department. Orchestral studies. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16CLAR810</td>
<td>Clarinet Concentration</td>
<td></td>
<td>Master's-level study for students accepted for a cognate in clarinet performance. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16CLAR820</td>
<td>Clarinet Secondary</td>
<td></td>
<td>Secondary study in clarinet for master's-degree students. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16CLAR910</td>
<td>Clarinet Major</td>
<td></td>
<td>First-year major study in clarinet for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 1.00</td>
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<tr>
<td>16CLAR920</td>
<td>Clarinet Concentration</td>
<td></td>
<td>Second-year major study in clarinet for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16CLAR930</td>
<td>Clarinet Elective</td>
<td></td>
<td>Nonrequired private study in clarinet for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00</td>
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<tr>
<td>16CLAR950</td>
<td>Artist Diploma in Clarinet</td>
<td></td>
<td>Second-year major study in clarinet for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00</td>
</tr>
<tr>
<td>16CLAR960</td>
<td>Clarinet Concerto</td>
<td></td>
<td>Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16CLAR970</td>
<td>Doctoral Recital</td>
<td></td>
<td>Public performance by a doctoral student in clarinet of selected compositions; approved and graded by the facility. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>16CLAR980</td>
<td>Lecture Recital</td>
<td></td>
<td>Combined public lecture and performance of a selected topic in the clarinet repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>16CLAR990</td>
<td>DMA Document</td>
<td></td>
<td>Research and preparation of the final written project for the DMA degree in clarinet; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00</td>
</tr>
<tr>
<td></td>
<td>Coaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16COAC511</td>
<td>Workshops in Orchestral Auditions</td>
<td></td>
<td>Survey and study of audition material and repertoire for violin and viola. Perm. of instr. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td></td>
<td>and Repertoire for Violin and Viola</td>
<td></td>
<td></td>
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<tr>
<td>16COAC512</td>
<td>Workshops in Orchestral Auditions</td>
<td></td>
<td>Survey and study of audition material and repertoire for violin and viola. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00</td>
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Coaching

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>16COAC513</td>
<td>Workshops in Orchestral Auditions and Repertoire for Violin and Viola</td>
<td>By audition. BoK: FA.</td>
<td>U, G</td>
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<tr>
<td>16COAC514</td>
<td>Orchestral Audition and Repertoire (Cello)</td>
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<td>U, G</td>
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<tr>
<td>16COAC560</td>
<td>Independent Study and Coaching</td>
<td>Prereq.: By audition. BoK: FA.</td>
<td>U, G</td>
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<tr>
<td>16COAC671</td>
<td>Orchestral Repertoire: Woodwinds</td>
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<td>16COAC672</td>
<td>Brass and Woodwind Orchestral Repertoire</td>
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<td>U, G</td>
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<tr>
<td>16COAC673</td>
<td>Chamber Music Ensemble</td>
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<td>U, G</td>
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<tr>
<td>16COAC674</td>
<td>Second Chamber Music Ensemble</td>
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<td>U, G</td>
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<tr>
<td>16COAC679</td>
<td>Chamber Music Master Class</td>
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<td>U, G</td>
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<tr>
<td>16COAC850</td>
<td>Chamber Music Major Study</td>
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<td>G</td>
<td>4.00</td>
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<tr>
<td>16COAC950</td>
<td>Chamber Music Major Study</td>
<td></td>
<td>G</td>
<td>4.00</td>
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<tr>
<td>16COAC960</td>
<td>Artist Diploma Chamber Recital</td>
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<td>G</td>
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Conducting

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
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<tr>
<td>16COND171</td>
<td>Introduction to Conducting</td>
<td>BoK: NA.</td>
<td>U, G</td>
<td>1.00</td>
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<tr>
<td>16COND300</td>
<td>Major Study for Orchestral Conducting Majors</td>
<td>BoK: FA.</td>
<td>U, G</td>
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<tr>
<td>16COND400</td>
<td>Major Study for Orchestral Conducting Majors</td>
<td>BoK: FA.</td>
<td>U, G</td>
<td>4.00</td>
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<tr>
<td>16COND470</td>
<td>Directed Readings in Conducting</td>
<td>BoK: FA.</td>
<td>U, G</td>
<td>3.00</td>
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<td>16COND500</td>
<td>Major Study for Orchestral Conducting Majors</td>
<td>BoK: FA.</td>
<td>U, G</td>
<td>4.00</td>
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<tr>
<td>16COND511</td>
<td>Instrumental Conducting</td>
<td>BoK: FA.</td>
<td>U, G</td>
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<tr>
<td>16COND512</td>
<td>Instrumental Conducting</td>
<td>BoK: FA.</td>
<td>U, G</td>
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<tr>
<td>16COND521</td>
<td>Choral Conducting</td>
<td>BoK: FA.</td>
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<td>16COND522</td>
<td>Choral Conducting</td>
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<td>16COND523</td>
<td>Choral Conducting</td>
<td>BoK: FA.</td>
<td>U, G</td>
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<td>16COND550</td>
<td>Choral Conducting Workshop</td>
<td>BoK: FA.</td>
<td>U, G</td>
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<td>16COND600</td>
<td>Lucca: Techniques in Opera Conducting</td>
<td>BoK: FA.</td>
<td>U, G</td>
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</tbody>
</table>

Conducting

16COND630  Special Topics
Topics established every quarter by Department/Division. BoK: FA. 
Credit Level: U, G. Credit Hrs: 0.00-3.00

16COND660  Special Topics
Topics established every quarter by Department/Division. BoK: FA. 
Credit Level: U, G. Credit Hrs: 0.00-6.00

16COND800  Applied Major Study-Conducting
Hourly private lessons for conducting majors in the master's degree 
program. Credit Level: G. Credit Hrs: 3.00

16COND811  Instrumental Conducting
Editing and marking orchestral string parts; fingering, bowing, and string 
pedagogy; application to short works for string orchestra. Credit Level: 
G. Credit Hrs: 3.00

16COND812  Instrumental Conducting
Preparing full orchestra scores; transposition and wind and percussion 
pedagogy; application to symphonic works. Prereq: 16COND811. Credit 
Level: G. Credit Hrs: 3.00

16COND813  Instrumental Conducting
Refinement of verbal and nonverbal conducting techniques; stressing 
score study and preparation of orchestral and wind works. Emphasis 
on laboratory conducting experiences. Credit Level: G. Credit Hrs: 3.00

16COND814  Instrumental Conducting
Second-year core conducting class for orchestral conducting majors. 
Covers all aspects of conducting techniques and preparation required of 
conductors. Credit Level: G. Credit Hrs: 3.00

16COND815  Instrumental Conducting
Second-year core conducting class for orchestral conducting majors. 
Covers all aspects of conducting techniques and preparation required of 
conductors. Second quarter of three quarter sequence. Credit Level: G. 
Credit Hrs: 3.00

16COND816  Instrumental Conducting
Second-year core conducting class for orchestral conducting majors. 
Covers all aspects of conducting techniques and preparation required of 
conductors. Third quarter of three quarter sequence. Credit Level: G. 
Credit Hrs: 3.00

16COND821  Choral Conducting Techniques
Refinement of conducting and rehearsal techniques; emphasis on score 
preparation and tone-gesture relationship. Credit Level: G. Credit Hrs: 
3.00

16COND822  Choral Conducting Techniques
Refinement of conducting and rehearsal techniques; emphasis on score 
preparation and tone-gesture relationship. Credit Level: G. Credit Hrs: 
3.00

16COND823  Choral Conducting Techniques
Refinement of conducting and rehearsal techniques; emphasis on score 
preparation and tone-gesture relationship. Credit Level: G. Credit Hrs: 
3.00

16COND895  Practicum
Practical experience in the professional world. Credit Level: G. Credit 
Hrs: 1.00

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H=University Honors course. 
Double Bass

16DBBS310  
**Double Bass Concentration**  
Third-year study for double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DBBS320  
**Double Bass Secondary**  
Third-year secondary study in double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DBBS400  
**Double Bass Major Study**  
Advanced technical studies and orchestral repertoire. Preparation of Senior Recital including compositions of different styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16DBBS410  
**Double Bass Concentration**  
Fourth-year study for double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DBBS420  
**Double Bass Secondary**  
Fourth-year secondary study in double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DBBS500  
**Double Bass Major**  
Additional study for undergraduate double bass majors who have completed the basic degree requirements; offered for undergraduate and graduate double bass majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16DBBS510  
**Double Bass Concentration**  
Additional study in double bass for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level double bass students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16DBBS530  
**Double Bass Elective**  
Nonrequired private study in double bass; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16DBBS560  
**Independent Study**  
In-depth study of a topic related to the double bass, selected by the student in consultation with a member of the faculty. Perm. of instr. and div. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16DBBS630  
**Special Topics**  
Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16DBBS670  
**Double Bass Ensemble**  
Study and performance of appropriate repertoire. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16DBBS800  
**Double Bass Graduate Major Study**  
Preparation of two recital programs, one to be performed in public. Graduate repertoire includes the major double bass literature in all major styles and some chamber music. Master’s degree students. Credit Level: G. Credit Hrs: 4.00

16DBBS810  
**Double Bass Concentration**  
Master’s-level study for students accepted for a cognate in double bass performance. Credit Level: G. Credit Hrs: 2.00

16DBBS820  
**Double Bass Secondary**  
Secondary study in double bass for master’s degree students. Credit Level: G. Credit Hrs: 1.00

16DBBS850  
**Artist Diploma in Double Bass**  
First-year major study in double bass for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16DBBS855  
**Artist Diploma Recital**  
Public performance by an artist diploma student in double bass of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16DBBS880  
**Master Recital**  
Public performance by a master’s degree student in double bass of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16DBBS905  
**Practicum**  
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16DBBS999  
**Master’s Candidacy**  
Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16DBBS900  
**Double Bass Doctoral Major Study**  
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16DBBS910  
**Double Bass Concentration**  
Doctoral-level study for students accepted for a cognate in double bass performance. Credit Level: G. Credit Hrs: 2.00

16DBBS920  
**Double Bass Secondary**  
Secondary study in double bass for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16DBBS930  
**Double Bass Elective**  
Nonrequired private study in double bass for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16DBBS950  
**Artist Diploma in Double Bass**  
Second-year major study in double bass for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16DBBS960  
**Double Bass Concerto**  
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16DBBS970  
**Doctoral Recital**  
Public performance by a doctoral student in double bass of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16DBBS980  
**Lecture Recital**  
Combined public lecture and performance of a selected topic in the double bass repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Dance

16DNCE100

Ballet Technique
Advanced study in classical ballet, pointe, male and female variations. Women: Sec. 001-level one; Sec. 002-level two; Men: Sec. 003-level three. Third-quarter of a three-quarter sequence for non-dance majors providing an introduction to techniques of contemporary dance. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE101

Musical Theater Dance: Ballet
Basic dance training for musical theater major with studies in basic ballet, character, and musical theater dance forms. Musical theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE102

Musical Theater Dance: Ballet
Advanced study in classical ballet, pointe, male and female variations. Women: Sec. 001-level one; Sec. 002-level two; Men: Sec. 003-level three. Second-quarter of a three-quarter sequence for non-dance majors providing an introduction to techniques of contemporary dance. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE103

Musical Theater Dance: Ballet
Basic dance training for musical theater major with studies in basic ballet, character, and musical theater dance forms. Musical theater majors only. Prereq. 16-DNCE-101. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE104

Musical Theater Dance: Ballet
First-year dance majors only. Intermediate modern dance expanding on fundamental movement principles emphasizing development of technical, improvisational, and performance skills. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE110

Modern Dance Technique
First-quarter of a three-quarter sequence for non-dance majors providing an introduction to ballet techniques and vocabulary. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE111

Ballet Basics
A one-quarter, non-repeating course for non-dance majors, providing an introduction to ballet techniques and vocabulary. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE115

Beginning Ballet Technique
First quarter of a three-quarter sequence of courses for non-dance majors providing an introduction to ballet technique and vocabulary. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE116

Intermediate Beginning Ballet Technique
Second quarter of a three-quarter sequence for non-dance majors providing continuation of ballet technique skills and vocabulary at a more accelerated level. Prereq.: 16-DNCE-115 or perm. of instructor. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE117

Advanced Beginning Ballet Technique
Third quarter of a three-quarter sequence for non-dance majors providing continuation of ballet technique skills and vocabulary at a more accelerated level. Prereq.: 16-DNCE-116 or perm. of instructor. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE121

Modern Dance Basics
A one-quarter, non-repeating course for non-dance majors providing an introduction to techniques of contemporary dance. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE125

Beginning Modern Dance Technique
First quarter of a three-quarter sequence for non-dance majors providing an introduction to techniques of contemporary dance. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE126

Intermediate Beginning Modern Dance Technique
Second quarter of a three-quarter sequence for non-dance majors providing continuation of movement skills and technique at a more accelerated level. Prereq. 16-DNCE-125 or perm. of instructor. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE127

Advanced Beginning Modern Dance Technique
Third quarter of a three-quarter sequence for non-dance majors providing continuation of movement skill and modern technique at a more accelerated level. Prereq.: 16-DNCE-127 or perm. of instructor. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE130

Dance Conditioning
Involves the teaching of cross-training modalities in order to develop fit, tone, strong yet flexible dancers. Cardiovascular training, barre work in the pool, yoga, ideokinesis, Pilates reformer and spring work, etc. will be utilized toward this end. Dance majors only. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE131

Somatic Studies for Dance
First quarter of a three-quarter sequence. Mind/ body systems including the Alexander Technique, The Pilates Method, Ideokinesis and body centering will be introduced and explored to bring about re-education and change in habitual ways of dancing and moving. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE132

Somatic Studies for Dance
Second-quarter of a three-quarter sequence. A continuation from the first quarter. Feldenkrais method is introduced. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE133

Somatic Studies for Dance
Third-quarter of a three-quarter sequence. A continuation from the first quarter. Pilates spring work introduced. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE200

Ballet Technique
Advanced study in classical ballet, pointe, male and female variations. Women: Sec. 001-level one; Sec. 002-level two; Men: 003-level three. Second-quarter of a three-quarter sequence for non-dance majors providing an introduction to ballet techniques and vocabulary. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE201

Musical Theater Dance: Modern
First-quarter of a three-quarter sequence. Dance class for musical theater majors, with an emphasis on modern dance. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE202

Musical Theater Dance: Modern
Second-quarter of a three-quarter sequence. Dance class for musical theater majors, with an emphasis on modern dance. Prereq.: 16-DNCE-201. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE203

Musical Theater Dance: Modern
Third-quarter of a three-quarter sequence. Dance class for musical theater majors, with an emphasis on modern dance. Prereq.: 16-DNCE-202. BoK: FA. Credit Level: U. Credit Hrs: 1.00
Dance

16DNCE110
Modern Dance Technique
Second-year dance majors only. Intermediate/Advanced modern dance class to further develop and refine technical, improvisational and performance skills/artistry. Prereq.: 16-DNCE-110. Prereq.: 16DNCE110. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE115
Intermediate Ballet
Intermediate-level study of classical ballet. Repeatable for credit. Prereq.: perm. of instr. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE171
Advanced Intermediate Ballet Technique
Advanced-intermediate level study of ballet technique. Repeatable for credit. Prereq.: perm. of instr. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE211
Partnering
First-quarter of a three-quarter sequence. Beginning partnering skills in the classical ballet idiom are taught for both men and women. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE222
Partnering
Second quarter of a three-quarter sequence. Continuation from first quarter. Intermediate to advanced beginning partnering skills in the classical ballet idiom are developed. Prereq.: 16DNCE221. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE223
Partnering
Third quarter of a three-quarter sequence. Continuation from second quarter. Advanced beginning to intermediate classical ballet partnering is explored and refined. Prereq.: 16-DNCE-222. Prereq.: 16DNCE222. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE241
Character Dance
Basic ethnic and national dance styles of Eastern European origin within the context of ballet performance. Flamenco dance is introduced as well. Prereq.: Dance majors only. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16DNCE251
Dance History
A general survey course tracing the major forms of theatrical dance from indigenous cultures to contemporary classical dance in the Western hemisphere. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

16DNCE271
Basic Modern Dance II
Intermediate level study of modern dance technique. Repeatable for credit. Prereq.: perm. of instr. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DNCE300
Ballet Technique
Advanced study in classical ballet, pointe, male and female variations. Women: Sec. 001-level; Sec. 002-level two; Sec. 003-level three; Men: Sec. 004-level one; Sec. 005-level two; Sec. 006-level three. Prereq.: 16-DNCE-200. Prereq.: 16DNCE200. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16DNCE301
Musical Theater Dance: Ballet III
A second course in ballet for musical theater and opera majors, with emphasis on more advanced techniques. Prereq.: 16-DNCE-203. Prereq.: 16DNCE301. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE302
Musical Theater Dance: Ballet III
A second course in ballet for musical theater and opera majors, with emphasis on more advanced techniques. Prereq.: 16-DNCE-203. Prereq.: 16DNCE302. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE303
Musical Theater Dance: Ballet III
A second course in ballet for musical theater and opera majors, with emphasis on more advanced techniques. Prereq.: 16-DNCE-203. Prereq.: 16DNCE302. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE310
Modern Dance Technique
Third-year dance majors only. Intermediate/Advanced modern dance class to further develop and refine technical, improvisational, and performance skills/artistry. Prereq.: 16-DNCE-210. Prereq.: 16DNCE310. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE321
Pas de Deux
Designed to further develop partnering skills, including lifts and more technically challenging movement sequences. Prereq.: 16-DNCE-223. Prereq.: 16DNCE321. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE331
Ballet History
An intensive study of ballet history from its origin in the 16th century through the 21st century including the development of ballet in America. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

16DNCE371
Choreography I
First-quarter of a six-quarter sequence. Basic elements of choreography which include energy, space, and time with attention to various aspects of the choreographic process and the choreographer's role and responsibilities. BoK: FA., QR. Credit Level: U. Credit Hrs: 2.00

16DNCE372
Choreography II
Second quarter of a six-quarter sequence. Continuation of Choreography I with emphasis on nurturing creativity through the introduction of improvisation and exploration with studies in motivation and gesture, music and use of props. Prereq.: 16-DNCE-371. Prereq.: 16DNCE371. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16DNCE373
Choreography III
Third quarter of a six-quarter sequence. Continuation of Choreography II focusing on the exploration of movement to express the emotions with attention to aesthetic awareness. Creation of a solo work is required. Prereq.: 16-DNCE-372. Prereq.: 16DNCE372. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16DNCE381
Anatomy for Dancers
Introduction to the function of the skeletal and muscular systems in reference to their support of human dance movement. Prereq.: Dance majors only. BoK: FA., NS. Credit Level: U. Credit Hrs: 3.00

16DNCE382
Dance Injuries and Prevention
Introduction to the analysis of biomechanical dance-related injuries and the factors involved in preventing such injuries. Prereq.: 16-DNCE-381. Prereq.: 16DNCE381. BoK: FA, NS. Credit Level: U. Credit Hrs: 3.00

16DNCE385
Introduction to the Alexander Technique
Examination of the teachings of F.M. Alexander: a mind/body self-study into personal awareness and discovery. BoK: NA. Credit Level: U. Credit Hrs: 2.00

16DNCE400
Ballet Technique
Advanced study in classical ballet, pointe, male and female variations. Women: Sec. 001-level one; Sec. 002-level two; Sec. 003-level three; Men: Sec. 004-level one; Sec. 005-level two; Sec. 006-level three. Fourth year dance majors only. Prereq.: 16-DNCE-300. Prereq.: 16DNCE300. BoK: FA. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
Dance

16DNCE401
Musical Theater Dance: Styles
A course in period dance, partnering and combinations and the rudiments of tap and jazz. Prereq.: Musical Theater Majors only. Prereq: 16DNCE302. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE402
Musical Theater Dance: Styles
A course in period dance, partnering and combinations, and the rudiments of tap and jazz. Prereq: Musical Theater Majors only, 16DNCE-401. Prereq: 16DNCE401. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE403
Musical Theater Dance: Styles
A course in period dance, partnering and combinations, and the rudiments of tap and jazz. Prereq: Musical Theater Majors only, 16DNCE-402. Prereq: 16DNCE402. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE410
Modern Dance Technique
Fourth-year dance majors only. Intermediate/Advanced modern dance class to further develop and refine technical, improvisational, and performance skills/artistry. Prereq.: 16-DNCE-310. Prereq: 16DNCE310. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16DNCE440
Repetoire
Historical understanding of ballet through the learning of classical repertoire with emphasis on technique and style. Prereq: 16-DNCE-100. BoK: FA., HP. Credit Level: U. Credit Hrs: 1.00

16DNCE471
Choreography IV
Fourth-quarter of a six-quarter sequence. Continuation of Choreography III with emphasis on form, style and content. Experimentation will focus on composition for two dancers. Analysis and critique of students' work. Prereq.: 16-DNCE-373. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16DNCE472
Choreography V
Fifth quarter of a six-quarter sequence. Continuation of Choreography IV focusing on abstraction and other stylistic approaches. Chorographic experience broadened by working with three or more dancers to create a group piece. Analysis and written critiques of noted choreographed works. Analysis and critique of students' works. Prereq.: 16-DNCE-471. Prereq: 16DNCE471. BoK: FA. QR. Credit Level: U. Credit Hrs: 3.00

16DNCE473
Choreography VI
Sixth quarter of a six-quarter sequence. Continuation of Choreography V with emphasis on other choreographic approaches which may include Dance and Video technology. Analysis and critique of students' works. Prereq.: 16-DNCE-472. Prereq: 16DNCE472. BoK: FA. QR. Credit Level: U. Credit Hrs: 3.00

16DNCE531
Techniques of Ballet Instruction
Restricted to Dance majors. Observations, readings, discussions and practical experience with problems in teaching classical ballet at all levels. BoK: FA., HP. Credit Level: U. G. Credit Hrs: 3.00

16DNCE560
Independent Study
In-depth study of a topic related to dance, selected by the student in consultation with a member of the faculty. Perm. of instr. and div. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-12.00

16DNCE600
Ballet Technique
See 16-DNCE-100. For dance majors performing with the Cincinnati
Dramatic Performance

16DRPF115

Acting II

Sequential continuation of Acting I involving the actor with the examination of dramatic text as a blueprint for the organic gesture and emotional and physical imagination. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF116

Acting II

Sequential continuation of Acting I involving the actor with the examination of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF175

First Year Performance Project

Selection, creation, rehearsal and presentation of a performance project by all first-year dramatic performance majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF201

Voice Production II

A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF202

Voice Production II

A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF203

Voice Production II

A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF221

Voice and Speech

Fundamentals of basic voice production techniques and principles of stage speech for the musical theater performer. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16DRPF222

Voice and Speech

Continuation of 16 DRPF 221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16DRPF223

Voice and Speech

Continuation of 16 DRPF 222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16DRPF271

Acting for Nonmajors

An introductory course in the craft of acting designed primarily for CCM students who are not acting majors. Students will work on scripted and unscripted material; will study the history of the development of the "Method"; and will learn basic actor vocabulary common to all styles of performance. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF272

Acting Workshop: Techniques of Acting

Advanced consideration of character projection and defined stage movement; character study from improvisation; vocal projection through mental and muscular involvement. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Dramatic Performance

16DRPF273

Acting Workshop: Theory of Ensemble Acting

The actor within the complete theater piece. One acts and others prepared and presented; development of ability to analyze, prepare and present characters. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF301

Voice Production III

Continue advanced techniques of vocal production with applications in the stage dialects of General American, Stage Standard, and heightened text. Prereq: 16DRPF203. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF302

Voice Production III

Continue advanced techniques of vocal production with applications in the stage dialects of General American, Stage Standard, and heightened text. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF303

Voice Production III

Continue advanced techniques of vocal production with applications in the stage dialects of General American, Stage Standard, and heightened text. Prereq: 16DRPF302. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF311

Acting III

Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF312

Acting III

Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classic Greek, Restoration and Russian repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF313

Acting III

Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF395

Improvisation for Playwrights

Improvisation for Playwrights is designed to fill a niche between the literary art of play writing and the performance savvy that stems from the on-stage experience of the art of acting. By experiencing the guidelines of improvisation, as detailed by Viola Spolin's theater games, writers will discover through experience what makes a scene live and breathe or flounder and die. Prereq: 30ENGL389. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16DRPF401

Voice Production IV

Continue advanced techniques of vocal production with applications in dialects and accents. Prereq: 16DRPF303. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF402

Voice Production IV

Continue advanced techniques of vocal production with applications in dialects and accents. Prereq: 16DRPF401. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16DRPF403

Voice Production IV

Continue advanced techniques of vocal production with applications in dialects and accents. Prereq: 16DRPF402. BoK: FA. Credit Level: U. Credit Hrs: 2.00

H=University Honors course.
Dramatic Performance

16DRPF411
Acting IV
Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF412
Acting IV
Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF413
Acting IV
Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF420
Rehearsal and Performance for the Dramatic Actor
Rehearsal and performance of repertoire assigned by faculty to be presented in the various performance spaces. BoK: FA., DC. Credit Level: U. Credit Hrs: 1.00-3.00

16DRPF434
Drama Workshop
Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. BoK: FA., DC. Credit Level: U. Credit Hrs: 1.00-3.00

16DRPF435
Drama Workshop
Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. BoK: FA., DC. Credit Level: U. Credit Hrs: 1.00-3.00

16DRPF436
Drama Workshop
Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. BoK: FA., DC. Credit Level: U. Credit Hrs: 1.00-3.00

16DRPF475
Senior Showcase
Selection, creation, rehearsal, and presentation of showcase to industry professionals by senior dramatic performance majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16DRPF500
Audition Techniques for the Dramatic Actor
Techniques of monologue preparation and delivery; also covers "cold readings" of scripts. Student should complete the course with 5-10 fully prepared monologues. BoK: FA. Credit Level: U. G. Credit Hrs: 3.00

16DRPF513
Acting for the Camera
Survey of and practice in audition and acting techniques. Senior MUST & DRPF majors only! BoK: FA. Credit Level: U. G. Credit Hrs: 3.00

16DRPF531
Theatre Movement I
Designed to help actors develop a keener kinesthetic awareness via a variety of movement techniques. Special emphasis will be given to work in alignment and spatial relationships. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00

16DRPF532
Theatre Movement I
Designed to help actors develop a keener kinesthetic awareness via a variety of movement techniques. Special emphasis will be given to work in alignment and spatial relationships. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF533
Theatre Movement I
Designed to help actors develop a keener kinesthetic awareness via a variety of movement techniques. Special emphasis will be given to work in alignment and spatial relationships. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF541
Theatre Movement II
Additional training in specialized movement skills for the actor, includes primitive full-face mask work and Laban based work. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF542
Theatre Movement II
Additional training in specialized movement skills for the actor, includes primitive full-face mask work and Laban based work. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF543
Theatre Movement II
Additional training in specialized movement skills for the actor, includes primitive full-face mask work and Laban based work. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF544
Theatre Movement III
Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF543. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF545
Theatre Movement III
Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF544. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF546
Theatre Movement III
Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF545. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF547
Theatre Movement IV
Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF546. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF548
Theatre Movement IV
Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF547. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF549
Theatre Movement IV
Additional training in specialized movement skills for the actor. Focus on stage combat. Prereq: 16DRPF548. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16DRPF551
Introduction to Dramaturgy
Workshop and practicum in the art of dramaturgy. Lecture/Demonstration format; will meet in conjunction with productions (from pre-production to wrap sessions). BoK: LT., DC. Credit Level: U. G. Credit Hrs: 3.00

H=University Honors course.
Dramatic Performance

16DRPF560 Independent Study
In-depth study of a topic related to dramatic performance, selected by the student in consultation with a member of the faculty. Perm. of instr. and div. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16DRPF600 Business Skills for the Actor
Making and updating resumes; getting headshots; audition follow-up; economic matters such as budgeting, bookkeeping, and taxes; professional manners and deportment. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

16DRPF630 Special Topics in Dramatic Performance
Developed yearly according to specialty being offered. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16DRPF660 Special Topics
Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16DRPF701 Voice Production I
Basic study in the concepts of relaxation, alignment, breathing, articulation, and tone production, as related to speech for the stage. Credit Level: G. Credit Hrs: 2.00

16DRPF702 Voice Production I
Basic study in the concepts of relaxation, alignment, breathing, articulation, and tone production, as related to speech for the stage. Prereq: 16DRPF701. Credit Level: G. Credit Hrs: 2.00

16DRPF703 Voice Production I
Basic study in the concepts of relaxation, alignment, breathing, articulation, and tone production, as related to speech for the stage. Prereq: 16DRPF702. Credit Level: G. Credit Hrs: 2.00

16DRPF704 Voice Production II
A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. Credit Level: G. Credit Hrs: 2.00

16DRPF705 Voice Production II
A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. Credit Level: G. Credit Hrs: 2.00

16DRPF706 Voice Production II
A sequential continuation of Voice Production I, with greater emphasis placed upon individual vocal diagnosis. Special attention is paid to theater "speech" training and effort is made to assist students with strong regionalisms. Credit Level: G. Credit Hrs: 2.00

16DRPF711 Acting I
Beginning investigation of the aspects of the actor's craft; to include improvisation of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. Credit Level: G. Credit Hrs: 3.00

16DRPF712 Acting I
Beginning investigation of the aspects of the actor's craft; to include improvisation, motivational analysis, sensitivity and imagination as a function of technique. Credit Level: G. Credit Hrs: 3.00

16DRPF713 Acting I
Beginning investigation of the aspects of the actor's craft; to include improvisation, motivational analysis, sensitivity and imagination as a function of technique. Credit Level: G. Credit Hrs: 3.00

16DRPF714 Acting II
Sequential continuation of Acting I involving the actor with the examination of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. Credit Level: G. Credit Hrs: 3.00

16DRPF715 Acting II
Sequential continuation of Acting I involving the actor with the examination of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. Credit Level: G. Credit Hrs: 3.00

16DRPF716 Acting II
Sequential continuation of Acting I involving the actor with the examination of the dramatic text as a blueprint for the organic gesture and emotional and physical imagination. Credit Level: G. Credit Hrs: 3.00

16DRPF801 Graduate Acting I
Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. Credit Level: G. Credit Hrs: 3.00

16DRPF802 Graduate Acting I
Continuation of Acting II (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. Credit Level: G. Credit Hrs: 3.00

16DRPF803 Graduate Acting I
Continuation of Acting I (sequential). Investigation of the problems of style in the classical drama; scenework centering on the Elizabethan, Jacobean, Classical Greek, Restoration and Russian repertoire. Credit Level: G. Credit Hrs: 3.00

16DRPF811 Graduate Acting II
Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. Credit Level: G. Credit Hrs: 3.00

16DRPF812 Graduate Acting II
Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. Credit Level: G. Credit Hrs: 3.00

16DRPF813 Graduate Acting II
Work involving advanced students in ensemble techniques producing works of the Modern World Theater; includes styles work beginning with the Greeks. Credit Level: G. Credit Hrs: 3.00

16DRPF820 Rehearsal and Performance for the Dramatic Actor
Rehearsal and performance of repertoire assigned by faculty to be presented in the various performance spaces. By assignment or audition. Credit Level: G. Credit Hrs: 1.00-3.00

H=University Honors course.
Dramatic Performance

16DRPF821
Voice Production III
Continue advanced techniques of vocal production with applications in the stage dialects of General American, Stage Standard, and heightened text. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

16DRPF822
Voice Production III
Continuation of 16DRPF821. Prereq: 16DRPF821. Credit Level: G. Credit Hrs: 2.00

16DRPF823
Voice Production III
Continuation of 16DRPF821 and 822. Prereq: 16DRPF822. Credit Level: G. Credit Hrs: 2.00

16DRPF831
Voice Production IV
Continue advanced techniques of vocal production with application in dialects and accents. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

16DRPF832
Voice Production IV
Continuation of 16DRPF831. Prereq: 16DRPF831. Credit Level: G. Credit Hrs: 2.00

16DRPF833
Voice Production IV
Continuation of 16DRPF831 and 832. Prereq: 16DRPF832. Credit Level: G. Credit Hrs: 2.00

16DRPF834
Drama Workshop
Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. Credit Level: G. Credit Hrs: 1.00-3.00

16DRPF835
Drama Workshop
Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. Credit Level: G. Credit Hrs: 1.00-3.00

16DRPF836
Drama Workshop
Lab course focusing on the practical approach to production. Extension of work of the performance classes (Acting I, II, III, IV) into performance for audiences. Assignment to roles in several workshop projects. Assignment to roles in productions on the basis of audition. Credit Level: G. Credit Hrs: 1.00-3.00

16DRPF880
Graduate Acting Seminar
Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 6.00

16DRPF890
Professional Acting Internship
Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 6.00

16DRPF899
Master’s Candidacy
Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

Directing

16DRTG210
The Artist in Society
and in the dimension of ritual public ceremony, and “life events.” Source materials should include Suzanne Langer and Susan Sontag, etc. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

16DRTG231
History of the Theater
Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

16DRTG232
History of the Theater
Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. Prereq: 16DRTG231. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

16DRTG311
Script Analysis
Focuses on structural elements that go into making plays. Emphasis is placed on realistic drama and selected examples of the historical avant-garde. The intention of the course is not necessarily to expose the student to “new” plays, but rather to an analytical methodology that can be applied to understanding any play one comes in contact with as an actor, director/designer. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

16DRTG312
Script Analysis
Focuses on structural elements that go into making plays. Emphasis is placed on realistic drama and selected examples of the historical avant-garde. The intention of the course is not necessarily to expose the student to “new” plays, but rather to an analytical methodology that can be applied to understanding any play one comes in contact with as an actor, director/designer. Prereq: 16DRTG311. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

16DRTG313
Advanced Script Analysis
Discussion and practical guidance in techniques of script analysis used by various disciplines in theater arts to prepare for production of plays or musicals. Includes theoretical readings, lecture/discussions, guest lecturer/demonstrations, and practice sessions. Prereq: 16DRTG312. BoK: FA, LT. Credit Level: U. Credit Hrs: 3.00

16DRTG321
Directing Lab for Actors
Actors will have the opportunity to work with a variety of directing candidates in a variety of styles, using a variety of techniques, on scene preparation. Perm of Instructor. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16DRTG501
Fundamentals of Directing
Basic aspects of the director’s craft from play selection through opening night. Includes an historical overview of techniques used by the acknowledged modern masters, including George II, Harold Clurman, and Konstantin Stanislavsky, put to use on a directorial analysis of a play of the student’s choosing. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00
Director/Actor process: explores various approaches to working with actors. Methods to include actioning techniques, improvisation, and character development. Prereq: 16DRTG801. Credit Level: G. Credit Hrs: 2.00

Advanced Script Analysis
Discussion and practical guidance in techniques of script analysis used by various disciplines in theater arts to prepare for production of plays or musicals. Includes theoretical readings, lecture/demonstrations, guest lecture, and practice sessions. Prereq: 16DRTG812. Credit Level: G. Credit Hrs: 3.00

Career Planning Seminar
Acquaints students with the business aspects of the directing profession and helps them to strategize career goals; resumes contacts and follow-up, agents, unions, working abroad, personal finances, and investing in their future. Credit Level: G. Credit Hrs: 1.00

H=University Honors course.
**Directing**

16DRTG821  
Directing I Lab  
Practicum for Directing I; includes a final performance project. Prereq: Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

16DRTG822  
Directing II Lab  
Practicum for Directing II; includes a final performance project. Prereq: 16DRTG821. Credit Level: G. Credit Hrs: 1.00

16DRTG823  
Directing III Lab  
Practicum for Directing III; includes a final performance project. Prereq: 16DRTG822. Credit Level: G. Credit Hrs: 1.00

16DRTG824  
Directing IV Lab  
Practicum for Directing IV; includes a final performance project. Prereq: 16DRTG823. Credit Level: G. Credit Hrs: 1.00

16DRTG825  
Directing V Lab  
Practicum for Directing V; includes a final performance project. Prereq: 16DRTG824. Credit Level: G. Credit Hrs: 1.00

16DRTG826  
Directing VI Lab  
Practicum for Directing VI; includes a final performance project. Prereq: 16DRTG825. Credit Level: G. Credit Hrs: 1.00

16DRTG831  
History of the Theater  
Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. Credit Level: G. Credit Hrs: 3.00

16DRTG832  
History of the Theater  
Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. Credit Level: G. Credit Hrs: 3.00

16DRTG833  
History of the Theater  
Introduction to the history of the theater, with emphasis on its most notable periods in western civilization. Focus on the integrated contribution of the performer, designer, and writer to the theatrical event and on the interests and perspectives of their audience. Credit Level: G. Credit Hrs: 3.00

16DRTG841  
Directing Project I  
Workshop or studio theater production. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16DRTG842  
Directing Project II  
Workshop or studio theater production. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16DRTG870  
Approaches to Production  
A graduate seminar on the topic of theatrical collaboration. Credit Level: G. Credit Hrs: 3.00

16DRTG880  
Graduate Directing Seminar  
Prereq.: Perm of instr. Credit Level: G. Credit Hrs: 6.00

16DRTG881  
Advanced Directing Practicum  
Fully directed classroom production independent of the Lab component of the Core Directing sequence. Classroom production in advanced topics, such as, but not limited to, period styles, alternative forms, or a production outside each student's area of specialization. May be repeated for credit. Credit Level: G. Credit Hrs: 1.00-3.00

16DRTG882  
Thesis Tutorial  
To be taken during the quarter of the director's thesis production. Student and faculty advisor will meet in tutorial fashion to discuss the progress of the student's thesis production and written thesis. Credit Level: G. Credit Hrs: 3.00

16DRTG883  
Thesis Production  
Design, collaboration, rehearsal, and performance of thesis production. Credit Level: G. Credit Hrs: 3.00

16DRTG890  
Professional Directing Internship  
Prereq.: Perm. of instr. Credit Level: G. Credit Hrs: 6.00

16DRTG899  
Master's Candidacy  
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

**Electronic Media**

16EMED100  
Introduction to the E-Media Division  
An introduction for new majors to the Electronic Media Division with guidelines for successfully completing the program course of study. Required for all new Electronic Media students. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16EMED101  
UAcast/TV51  
A practicum for students involved in the management and operations of UCAST/TV51, University of Cincinnati All Student Television. Students will contribute in various capacities and at different levels of involvement in the production and dissemination of television programming content for the University's only student-run television channel. Open to non-majors. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

16EMED102  
Bearcast  
Provides students hands-on experience in the day-to-day operations of Bearcast, the Electronic Media Division's student-run internet radio station. Students will focus their work within a particular area of Bearcast operations, involving, one or more of the following: programming, news/sports, music, production, promotion, web design, or sales. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

16EMED105  
History of Electronic Media  
Historical survey from 1900 to present. Emphasis on social, political, economic, and cultural influences of electronic media on society. Major areas covered; advertising, programming, noncommercial, law, cable. BoK: HP. Credit Level: U. Credit Hrs: 1.00-3.00

16EMED109  
Digital Core I  
Required of all incoming freshman and transfer students as part of the first-year digital experience. This introductory E-Media course focuses on the areas of acquisition, editing, exporting of digital images, digital audio and digital video, while offering students a comprehensive hands-on experience with Mac-OS X. All course work will be completed via the Life '06 creative suit pre-installed on all new Apple computers. This software suite includes iPhoto, iWeb, iMovie HD, iDVD and Garageband. The use of these introductory digital tools at an early age will enable students a smooth transition to the Pro Applications later in
16EMED109 Digital Core I
their college career. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED110 Digital Core II
Required of all incoming Freshman and transfer students as part of the first-year digital experience. This introductory E-Media course focuses on the areas of acquisition, editing, exporting of digital images, digital audio and digital video, while offering students a comprehensive hands-on experience with MAC OS X. All course work will be completed via the iLife '06 creative suite pre-installed on all new Apple computers. This software suite includes iPHoto, iWeb, iMovie HD, iDVD and Garageband. The use of these introductory digital tools at an early age will enable students a smooth transition to the Pro Applications later in their college career. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED115 Sight, Sound and Motion
A study of applied media aesthetics based upon an analysis of fundamental image elements – light, space, time-motion, and sound. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED175 Survey of Film
Evolution of the motion picture as a unique and significant form of expression. Investigation into film style and structure, distribution and consumption. Development of aesthetic criteria for critical examination. Viewing of representative films. Open to nonmajors. BoK: HP. Credit Level: U. Credit Hrs: 3.00

16EMED200 Media Research and Resources
Introduction to methods, research strategies, electronic resources, and applications of contemporary scholastic and practical research in the media arts. Surveys, bibliographical material, archival resources, media organizations and associations, and proper research paper formats. Required of Elec. Media majors. Successful completion of this course with a grade of "C" or better, before permission is granted to enroll in any upper E-Media class. Prereq: 16EMED105, 15ENGL103. BoK: QR. Credit Level: U. Credit Hrs: 3.00

16EMED205 Introduction to Broadcast Performance
Basic skills, terminology, and demands of acting. Performance in pantomime, monologues, 2-person scenes, and radio/TV commercials. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED210 Survey of Media Technologies
History and contemporary role of communication delivery, storage and playback systems, including cable, VCRs, CDs, Pay TV, satellite distribution, etc. Their effect on over-the-air broadcasting, the public, and communication policy will be studied. Prereq: 16EMED105. BoK: HP. Credit Level: U. Credit Hrs: 3.00

16EMED220 Introduction to Electronic Media Writing
A course stressing writing for the broadcast media and the differences between broadcast and print. Students will write newscasts, commercials and scripts for radio and TV. Successful completion of this course with a grade of "C" or better, before permission is granted to enroll in any upper division E-Media production class. Prereq: 16EMED105, 15ENGL103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED221 News Writing
A writing lab, newsroom atmosphere. Students will write news stories for radio, television, and online journalism. Prerequisite: 16EMED100, 105 and Freshman English. Prereq: 16EMED230. BoK: NA. Credit Level: U. Credit Hrs: 3.00
16EMED330 Survey of Electronic Media Advertising
cycle, media, and the communication and behavioral fields. Topics include: marketing, positioning, creating strategies, media planning and buying, creativity, and regulations. Required of Electronic Media majors. Open to nonmajors. Prereq: 16EMED105, 15ENGL103. BoK: SE. Credit Level: U. Credit Hrs: 3.00

16EMED340 Commercial Audio Production
An in-depth study of commercial audio production for "real world" clients. Emphasis will be on the creative aspects of brain storming advertising, marketing, copy writing, recording voice talent, and digital audio post-production techniques. Adobe Audition is the featured software for this course. Prereq: 16EMED240. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED350 TV Production II
More advanced studio production disciplines, introducing/ incorporating single camera field production and video editing techniques. Required of Electronic Media majors. Prereq: 16EMED250. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED351 Producing
Students will produce individual and challenging production assignments, and work in various capacities in fellow students' productions. Prereq: 16EMED350. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED352 Documentary Production
Basic principles, procedures and techniques applicable to nonfiction production. Through lecture and written analysis, students contextualize documentary form and narrative structure, cinema verite/direct cinema and reflexive/translient directorial approaches, subjective and objective camera and issues of voice, p.o.v. and verisimilitude. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED354 Postproduction I
This course examines the mechanics, aesthetics and theory involved in the juxtaposition and sequencing of images and sounds that develop over time in a coherent narrative manner to evoke a desired viewer response. During the quarter, each student will learn to deconstruct and analyze video and film sequences while also spending a minimum of 50 hours of hands-on time editing assignments on a state-of-the-art Avid Adrenaline digital editing system. By quarter's end, each student will work with producers from the Producing for Single-Camera Production class in taking a professional project through the entire offline and on-line postproduction process - logging footage, using the Avid MediaLog, digitization, preparing a rough cut, importing graphics and animation, audio sweetening and final cut. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED355 Producing for Single-Camera Productions
This course explores the theory, technique and aesthetics involved in producing professional single-camera productions. Through hands-on applications in the field, students will learn the professional practices involved in acquiring images and sounds that evoke a desired viewer response. During the quarter, students work in groups to conceptualize, write and produce a professional quality production that incorporates aspects of the preproduction, production, and in collaboration with the Postproduction I class-postproduction processes. Prereq: 16EMED251. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED356 Videographics
Introduction to the creation of electronically generated graphics. Graphic images and texts, created from scratch or from other existing images. Techniques include free-hand drawing with a variety of brush strokes, sizes, and shapes. Control of picture creation and coloration is achieved on a pixel-by-pixel basis. Linear and curvilinear motion is also explored by further digitizing the video, experimenting with flips, tumbles, zooms, and variable positions. Prereq: 16EMED350. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED357 Uptown -- CCM/TV
Students assume all roles in producing "Uptown"-- a campus-oriented news featured program. When interest warrants students also produce a sports-oriented television program. Both are aired on the University's closed circuit Channel 51. Prereq: 16EMED250, 16EMED251. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED360 Multitrack Music Production I
An in-depth study of studio music production in a multitrack recording format. Emphasis will be on the production process including, studio recording techniques, recording session processes and final production mix down. Pro Tools is the featured software for this course. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED361 Multitrack Music Production II
Advanced level audio production course dealing exclusively with multitrack applications in audio music recording. Extensive intermediate and advanced techniques will be explained such as automated mixing. CCM ensembles and local bands will provide challenging real world recording experiences. Projects will provide opportunity for demo reel materials. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED370 Sound for Picture
An in-depth study of commercial audio production for sound for picture applications. Emphasis will be on the production process of generating timing information, meeting clients' needs, loop music creation and post-production techniques. Sound Track Pro and Pro Tools are the featured software for this course. Prereq: 16EMED361. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED372 Postproduction II
This course builds upon the theory and techniques introduced in the Postproduction I class to apply advanced editing techniques for various electronic media genre. During the quarter, each student will produce a number of shot-by-shot analysis for various continuity, montage, and non-fiction sequences. By quarters end, students will learn to use the components, techniques and processes involved in the advanced operation of the Avid Adrenaline and Final Cut Pro editing systems including effect editing, composing, media management and various compression/decompression algorithms for delivery of their programs for a variety of media. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED380 New Media Studio I
An introduction to the fundamental skills and tools employed by industry professionals to create effective web-based digital content. During this fast-paced ten-week digital experience, students will explore both the technical and creative aspects of web-based content creation. Students will develop online content using traditional hand-coding techniques, popular professional WYSIWYG tools, and industry standard image acquisition and editing application Adobe Photoshop. Students will gain familiarity with the Max OS X operating system and basic web terminology. Prereq: 16EMED109, 16EMED110. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED381 New Media Studio II
An introduction to time-based interactive content creation with industry standard animation and authoring environment Macromedia Flash.
Electronic Media

16EMED380
Electronic Media Law
Legal aspects of the broadcasting industry examined in the historical and current perspectives. Case studies focus on specific areas of electronic media practices and problems. BoK: SE. Credit Level: U. Credit Hrs: 3.00

16EMED485
Ethics of Mass Media
Development of a strong ethical structure for media as an industry, and for the media professional as an individual and as part of a collective body. BoK: SE. Credit Level: U. Credit Hrs: 3.00

16EMED495
Internship
On-the-job training in broadcasting and allied fields. Enrollment by faculty invitation only. Interviewing required. Six credit hours required; in addition, six credit hours can count as Applied or General E-Media electives. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

16EMED498
Senior Project
This course will provide electronic media seniors with the opportunity to fuse all elements of the electronic media curriculum into a capstone experience - a single digital video project. This class will be comprised of three to four production teams made up of some combination of writer/producer, director, director of photography and editor. By the end of the quarter, each production team will be responsible for successfully completing the preproduction, production, postproduction and distribution aspects of an original digital video program. During the course of the quarter, students will also be required to present and discuss postgraduate plans, resumes, cover letters and demo reels. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16EMED499
Capstone Experience Seminar
This experience is designed to help Electronic Media Division B.F.A. candidates prepare for a presentation to Divisional faculty that encompasses each student's overall development during their academic experience at the University of Cincinnati in those baccalaureate competencies of the General Education Breadth of Knowledge areas for the Fine Arts and Humanities: critical thinking, effective communication, social responsibility and knowledge integration. BoK: NA. Credit Level: U. Credit Hrs: 0.00-3.00

16EMED550
Directed Research
Prereq.: Perm. of Div. Head. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

16EMED560
Independent Study
Prereq.: Perm. of Div. Head. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16EMED598
Special Topics on Broadcasting
Topic is determined by student interest and faculty expertise. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16EMED630
Special Topics in Electronic Media
This course is designed to fill in temporary gaps in electronic media offerings. This particular topic is determined by student interest and expertise. Specialized talents of visiting faculty and professional are used. BoK: NA. Credit Level: U. Credit Hrs: 3.00

English Horn

16ENHN680
English Horn Master Class
A weekly seminar in English Horn performance covering English Horn and reed-making techniques, etudes, Bach arias, sonatas and concerti, orchestral excerpts. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00
Ensemble

16ENSM171
Bearcat Marching Band
Ensemble which presents pre-game, half-time, and post-game entertainment at all home football games. Class includes Pre-school Camp and required performances. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16ENSM175
Bearcat Varsity Band
Required performances at basketball games and various events. Brass, woodwind, percussion and jazz ensembles meet at various times. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16ENSM181
UC Men's Chorus
A 18-member ensemble which performs a wide range of historical and from the Middle Ages to the twentieth century. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM185
UC Women's Chorus
A 50-voice ensemble performing classical and popular choral literature on campus, locally, and on national tours. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16ENSM191
University of Cincinnati Symphony Orchestra
This orchestra is specifically for nonmusic majors and is designed to provide students with an opportunity to rehearse and perform orchestral repertoire. It is open to qualified instrumentalists as determined by audition. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16ENSM550
Lucca Festival Ensemble
Preparation and presentation of orchestral programs and chamber music concerts. BoK: FA. Credit Level: U, G. Credit Hrs: 7.00

16ENSM570
Chamber Orchestra
An orchestral experience exposing instrumentalists to a broad orchestral repertory and providing training for conducting majors. By audition only. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM571
Brass Choir
A select group which promotes the advancement of wind music of artistic and historical significance through one-on-a-part performances in a chamber setting. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM572
Jazz Lab Band
An 18-member ensemble which performs a wide range of historical and contemporary literature, including swing era, bebop, mainstream, Latin, jazz/rock fusion, and avant-garde. Student compositions and arrangements are frequently performed. By audition only. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM573
Jazz Ensemble
An 18-member ensemble which performs a wide range of historical and contemporary literature, including swing era, bebop, mainstream, Latin, jazz/rock fusion, and avant-garde. Student compositions and arrangements are frequently performed. By audition only. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM575
Concert Orchestra
A full symphony orchestra performing symphonic literature of all periods. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENSM576
Contemporary Music Ensemble
An ensemble/reertoire course devoted to the study and performance of representative and experimental works of the twentieth century. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENMS567
Chamber Choir
A select vocal ensemble specializing in vocal literature from the Baroque era to the present. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENMS5672
Chamber Singers
A group of 55 vocalists concentrating in the definitive performance of vocal chamber music of all periods. The lab chorus for graduate choral conducting majors. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENMS673
Chorale
A 80-voice ensemble of performers which performs vocal compositions from the Middle Ages to the twentieth century. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16ENMS674
Renaissance Consort
A chamber ensemble specializing in the performance of music of the late Middle Ages, the Renaissance, and early Baroque. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

H=University Honors course.
Euphonium

16EUPH100
Euphonium Major Study
Technical requirements: study of major and minor scales; selected studies for the refinement of basic techniques. Band repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16EUPH110
Euphonium Concentration
First-year study for euphonium students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16EUPH120
Euphonium Secondary
First-year secondary study in euphonium as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16EUPH200
Euphonium Major Study
Further advanced technical studies and compositions for the instrument covering different styles. Continuation of band repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16EUPH210
Euphonium Concentration
Second-year study for euphonium students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16EUPH220
Euphonium Secondary
Second-year secondary study in euphonium as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16EUPH300
Euphonium Major Study
Continuation of 16EUPH200. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16EUPH310
Euphonium Concentration
Third-year study for euphonium students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16EUPH320
Euphonium Secondary
Third-year secondary study in euphonium as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16EUPH400
Euphonium Major Study
Advanced technical studies. Continuation of band repertoire. Preparation of Senior Recital including compositions of different styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16EUPH410
Euphonium Concentration
Fourth-year study for euphonium students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16EUPH420
Euphonium Secondary
Fourth-year secondary study in euphonium as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16EUPH500
Euphonium Major
Additional study for undergraduate euphonium majors who have completed the basic degree requirements; offered for undergraduate and graduate euphonium majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16EUPH510
Euphonium Concentration
Second-year major study in euphonium for students accepted into the artist diploma program. NOTE: The Artist Diploma degree program in euphonium is not currently available. Credit Level: G. Credit Hrs: 6.00

16EUPH530
Euphonium Elective
Nonrequired private study in euphonium; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16EUPH560
Independent Study
In-depth study of a topic related to the euphonium, selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16EUPH600
Euphonium Graduate Major Study
Selected studies for continued refinement of previous skills. Preparation of two recital programs including repertoire of a high level of difficulty suited to the needs of the individual student. Band and orchestral repertoire. Credit Level: G. Credit Hrs: 4.00

16EUPH810
Euphonium Concentration
Master's-level study for students accepted for a cognate in euphonium performance. Credit Level: G. Credit Hrs: 2.00

16EUPH820
Euphonium Secondary
Secondary study in euphonium for master's degree students. Credit Level: G. Credit Hrs: 1.00

16EUPH850
Artist Certificate Euphonium
First-year major study in euphonium for students accepted into the artist diploma program. NOTE: The Artist Diploma degree program in euphonium is not currently available. Credit Level: G. Credit Hrs: 6.00

16EUPH895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16EUPH899
Master's Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16EUPH900
Euphonium Major
Doctoral-level study for euphonium performance majors. Credit Level: G. Credit Hrs: 4.00

16EUPH910
Euphonium Concentration
Doctoral-level study for students accepted for a cognate in euphonium performance. Credit Level: G. Credit Hrs: 2.00

16EUPH920
Euphonium Secondary
Secondary study in euphonium for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16EUPH930
Euphonium Elective
Nonrequired private study in euphonium for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16EUPH950
Artist Certification Euphonium
Second-year major study in euphonium for students accepted into the artist diploma program. NOTE: The Artist Diploma program in...
Euphonium

16EUPH950
Artist Certification Euphonium
Euphonium is not currently available. Credit Level: G. Credit Hrs: 6.00

16EUPH960
Euphonium Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16EUPH970
Euphonium Recital
Public performance by a doctoral student in euphonium of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16EUPH980
Lecture Recital
Combined public lecture and performance of a selected topic in the euphonium repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16EUPH990
DMA Document
Research and preparation of the final written project for the DMA degree in euphonium: topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Fine Arts - Music

16FAM101
Rudiments of Music
Fundamentals of music; notation; basic vocabulary. Emphasis on rhythmic aspects of music, and musical perception. Analysis of representative compositions. BFA Dance majors only. BoK: FA., QR. Credit Level: U. Credit Hrs: 2.00

16FAM102
Rudiments of Music
Fundamentals of music; notation; basic vocabulary. Emphasis on rhythmic aspects of music, and musical perception. Analysis of representative compositions. BFA Dance majors only. Prereq: 16FAM101. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16FAM150
Art of Recording: Music for the Masses
An introduction to the aesthetics of recorded music and media. The unique sonic qualities of recordings that shape our listening experiences are studied. Many listening examples of all types of productions are used to develop a common language base. Trips to local recording studios are planned. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM177
Cincinnati Musical Scene Part I
Special lectures, guest lecturers, film strips, and in-depth discussion of major musical events in the Cincinnati area. Outside concerts are required. Tickets for the concerts are separate from fees, and must be purchased by each student in addition to the basic tuition for the course. Offered alt. yrs. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM178
Cincinnati Musical Scene Part II
Continuation of FINE ART 177. Special lectures, guest lecturers, film strips, and in-depth discussion of major musical events in the Cincinnati area. Outside concerts are required. Tickets for the concerts are separate from fees, and must be purchased by each student in addition to the basic tuition for the course. Offered alt. yrs. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16FAM179
The Cincinnati Musical Scene Part III
Continuation of 30FAM178 including an analysis of one of the operas to be presented by the Cincinnati Opera Association during the Summer Festival. Offered alt. yrs. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Fine Arts - Music

16FAM192
The Folk-Rock-Jazz Culture - Part I
Special lectures, outside readings, and in-depth discussions of major trends in American popular music culture in the Cincinnati area. Outside concerts are required. Tickets for the concerts are separate from fees, and must be purchased by each student in addition to tuition for the course. Offered alt. yrs. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM193
The Folk-Rock-Jazz Culture - Part II
Continuation of 30FAM192. Special lectures, outside readings, and in-depth discussions of major trends in American popular music culture in the Cincinnati area. Outside concerts are required. Tickets for the concerts are separate from fees, and must be purchased by each student in addition to tuition for the course. Offered alt. yrs. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM194
The Folk-Rock-Jazz Culture - Part III
Continuation of 30FAM193. Offered alt. yrs. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM201
Music Appreciation I
The common components and procedures in the music of Western culture. Lectures, visiting concert groups, and prepared listening tapes. For nonmusic majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM202
Music Appreciation II
Instruments, instrumental combinations, and instrumental forms in the music of Western culture. Lectures, visiting concert groups, and prepared listening tapes. For nonmusic majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM203
Music Appreciation III
Voices, choral combinations, choral forms, and the musical stage in Western culture. Lectures, visiting concert groups, and prepared listening tapes. For nonmusic majors. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM221
Introduction to Arts Appreciation I
Provides the general university student with a grounding in names, dates, examples, and stylistic characteristics from the normally accepted periods in the history of the arts. An entry-level offering for the general student and for those seeking a survey course to fulfill a Fine Arts requirement. This course covers Hellenic Greece through the Renaissance. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM222
Introduction to Arts Appreciation II
See 16FAM221. This course covers Baroque through Contemporary Arts. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM251
Jazz Appreciation: Origins
Origins of jazz: ragtime, blues, minstrels, spirituals, and brass bands. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM252
Jazz Appreciation: The Swing Era
Covers the period in which jazz was America's popular music, and the continuation into Bebop, Cool, Hard Bop and Free Jazz. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

16FAM253
Jazz Appreciation: Fusion to the Present
Final segment of the sequence focuses on fusion of styles (e.g. jazz and rock, jazz and hiphop) as well as revivals of earlier styles and contemporary developments. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Fine Arts - Music

16FAM315
Music in the French Baroque and Pre-Classical Periods
A survey of music in France from the reign of Louis XIV to Louis XVI. The course will include the study of French National Operas of Lully and Rameau, opera-ballet, the opera seria reforms of Gluck, liturgical works, lute and keyboard music, chamber works and symphonic works against the backdrop of the luxuriant royal society that fostered the arts. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM316
French Music in the Classic and Romantic Periods
During the nineteenth century, Paris was regarded by all countries as the musical capital of the world. This course is intended to cover the music of France from the time of the French Revolution up to the end of the nineteenth century. It will focus on important trends in opera, symphonic works, piano literature, choral works, and chamber literature during the Classic and Romantic periods. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM317
Modern Music in France
This course will focus on the most important musical trends in France from Debussy and Stravinsky up to the present. During the twentieth century, France was the center of musical culture and art. It was the hotbed of Neo-Classicism and experimentation in electronic music. This course will introduce new musical genres, illustrate the influences of art on music and introduce new sound materials outside functional tonality. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM321
Introduction to Bach, Beethoven, and Brahms: Major Compositions
The course is a presentation of the best musical works of Johann Sebastian Bach, Ludwig van Beethoven and Johannes Brahms, the three Bs of music. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM331
History of Rock and Roll/Pop Music: 1954-1969
History of Rock and Roll/Pop Music from 1954 to 1969 is to be the first in a series of three classes. This first course will be a sociological and musical survey of the origins of the genre and will cover the different cultural elements that brought it about and will include a wide variety of recording artists and their greatest hits. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM332
History of Rock and Roll/Pop Music from 1969 to 1983 is the second course in a three-part series. It will cover sociological events as they relate to music and cover a wide variety of musical styles that evolved after the Beatles broke up and will lead the class up to the multimedia explosion of music on MTV. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM333
History of Rock and Roll/Pop Music: 1983-2001
History of Rock and Roll/Pop from 1983 to 2001, the third in the series of proposed rock/pop classes, is intended to explore the new generation of music and the music industry from sociological, technological and musical points of view. It will cover the multimedia effects of MTV and the new stars of rock and popular music; it will show how artists explored different styles outside of their own areas of specialization, drawing on many other influences which destroyed the distinction of styles within particular groups and led to a questionable outcome for the future of Rock and Roll/Pop Music. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FAM342H
Rock Music Workshop: Creative Impulse in the American Working Class
A study, in a weekly workshop format, of the creative process using rock music as the medium. Teams of students shall create new songs in selected rock music styles by duplicating the language, rhythm and form of each style under consideration. No musical training or

H-University Honors course.
Fine Arts - Music

16FAM513
Theory-Composition
Continuation of 16FAM512. BoK: FA., QR. Credit Level: U. Credit Hrs: 2.00

16FAM520
Multicultural Expressions Through the Arts
Designed to introduce the general university student to the musical and artistic contributions of African-Americans, Asians, Hispanics, and Native Americans. BoK: FA., DC. Credit Level: U. G. Credit Hrs: 3.00

16FAM521
The Fine Arts Experience
Using literature, poetry, drama, music and movement to explore the arts as communication in a variety of cultures, students will become knowledgeable about, perform, and create artistic works in multiple media formats and bring aesthetic criticism to bear on their work. BoK: FA., DC. Credit Level: U. Credit Hrs: 2.00

16FAM530
Lucca: Italian Culture
Immersion in the daily life and language of Italy through a five-week residency in Lucca. Field trips to major cultural centers with exposure to Italian history, art, architecture, and music. BoK: NA. Credit Level: U. G. Credit Hrs: 2.00-3.00

16FAM630
Special Topics
Topics established every quarter by Department/Division. BoK: NA. Credit Level: U. G. Credit Hrs: 0.00-6.00

Flute

16FLUT100
Flute Major Study
Technical requirements: studies for the development of tone quality; major and minor scales. Cavally -- Melodious and Progressive Studies, Books I and II (Anderson, Garibaldi, Kochler-Terschak, Kummer, etc.). Solo pieces selected from 24 Concert Pieces (Cavally), Handel -- Sonatas, Bournonville -- Danse pour Katia, Mouquet -- Five Short Pieces, and works of comparable difficulty. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16FLUT110
Flute Concentration
First-year study for flute students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16FLUT120
Flute Secondary
First-year secondary study in flute as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16FLUT200
Flute Major Study

16FLUT210
Flute Concentration
Second-year study for flute students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16FLUT220
Flute Secondary
Second-year secondary study in flute as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16FLUT300
Flute Major Study

16FLUT310
Flute Concentration
Third-year study for flute students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16FLUT320
Flute Secondary
Third-year secondary study in flute as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16FLUT400
Flute Major Study

16FLUT410
Flute Concentration
Fourth-year study for flute students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16FLUT420
Flute Secondary
Fourth-year secondary study in flute as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16FLUT500
Flute Major
Additional study for undergraduate flute majors who have completed the basic degree requirements; offered for undergraduate and graduate flute majors during the Summer Session. BoK: FA. Credit Level: U. G. Credit Hrs: 4.00

16FLUT510
Flute Concentration
Additional study in flute for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level flute students during the Summer Session. BoK: FA. Credit Level: U. G. Credit Hrs: 2.00

16FLUT530
Flute Elective
Nonrequired private study in flute; requires permission of the department and the college. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-2.00

16FLUT560
Independent Study
In-depth study of a topic related to the flute, selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-12.00

16FLUT630
Special Topics
Topics established by the area faculty on an as needed basis. BoK: FA. Credit Level: U. G. Credit Hrs: 0.00-3.00

H=University Honors course.
Flute

16FLUT680 Piccolo Master Class
Forum for performance and discussion of topics related to the piccolo. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-2.00

16FLUT800 Flute Graduate Major Study
Preparation of two recital programs, one to be performed in public. Advanced technical studies, solo pieces, and orchestral studies emphasizing skill in phrasing and solo technique will be adapted to the needs of the individual student. Credit Level: G. Credit Hrs: 4.00

16FLUT810 Flute Concentration
Master's-level study for students accepted for a cognate in flute performance. Credit Level: G. Credit Hrs: 2.00

16FLUT820 Flute Secondary
Secondary study in flute for master's degree students. Credit Level: G. Credit Hrs: 1.00

16FLUT850 Artist Diploma in Flute
First-year major study in flute for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16FLUT855 Artist Diploma Recital
Public performance by an artist diploma student in flute of selection compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16FLUT880 Master Recital
Public performance by a master's degree student in flute of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16FLUT920 Flute Concentration
Doctoral-level study for students accepted for a cognate in flute. Credit Level: G. Credit Hrs: 2.00

16FLUT930 Flute Elective
Nonrequired private study in flute for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16FLUT950 Artist Diploma in Flute
Second-year major study in flute for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

Flute

16FLUT960 Flute Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16FLUT970 Doctoral Recital
Public performance by a doctoral student in flute of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16FLUT980 Lecture Recital
Combined public lecture and performance of a selected topic in the flute repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16FLUT990 DMA Document
Research and preparation of the final written project for the DMA degree in flute; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Classical Guitar

16GTAR100 Classical Guitar Major Study
Technical facility in scales, arpeggios, and guitar studies. Solo repertoire including selections from Sor-Segovia, Twenty Studies, etude collections of Giuliani, Carcassi, Aguado and Coste, Villa-Lobos Preludes. Ensemble literature for two and three guitars. Chamber music literature. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16GTAR110 Classical Guitar-Concentration
First-year study for classical guitar students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16GTAR120 Classical Guitar Secondary
First-year secondary study in classical guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16GTAR200 Classical Guitar Major Study
Continuation of the above. Additional works including selections from DeVisee suites, Dowland lute pieces, Bach preludes, Milan pavanes, Sor Twenty Studies. Ensemble literature. Chamber music literature. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16GTAR210 Classical Guitar-Concentration
Second-year study for classical guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16GTAR220 Classical Guitar Secondary
Second-year secondary study in classical guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16GTAR300 Classical Guitar Major Study
Continuation of the above. Additional works include selections from Bach lute suites, solo works of Corbetta, Scarlatti, Sor, Tarrega, Albeniz, Ponce. Study of the Spanish vihuelists Fuenllana, Milan, Mudarra, Narvaez, transcription and edition procedures. Ensemble literature. Chamber music literature. Preparation of joint recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16GTAR310 Classical Guitar-Concentration
Third-year study for classical guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

H=University Honors course.
Classical Guitar

16GTAR320 Classical Guitar Secondary
Third-year secondary study in classical guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16GTAR400 Classical Guitar Major Study
Continuation of the above. Additional works including selections from Bach lute suites and fugues, solo works of Sor, Giuliani, Tarrega, Albeniz, de Falla, Turina, Britten, Berkeley, Brindle, Rodrigo, Villa-Lobos, Lauro, H.W. Henze. Study of Castelnuovo-Tedesco, Palau, and Rodrigo concertos among others. Ensemble literature. Chamber music literature. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16GTAR410 Classical Guitar-Concentration
Fourth-year study for classical guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16GTAR420 Classical Guitar Secondary
Fourth-year secondary study in classical guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16GTAR500 Guitar Major
Additional study for undergraduate classical guitar majors who have completed the basic degree requirements; offered for undergraduate and graduate classical guitar majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16GTAR510 Guitar Concentration
Additional study in classical guitar for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR530 Classical Guitar Elective
Nonrequired private study in classical guitar; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16GTAR531 Classical Guitar Repertoire
A survey of literature for the classical guitar beginning with music for the 16th-century vihuela, continuing through the 20th-century repertoire. Lute music, tablatures, transcription procedures integrally covered. Given in alternate years. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR532 Classical Guitar Repertoire
A survey of literature for the classical guitar beginning with music for the 16th-century vihuela, continuing through the 20th-century repertoire. Lute music, tablatures, transcription procedures integrally covered. Given in alternative years. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR533 Classical Guitar Repertoire
A survey of literature for the classical guitar beginning with music for the 16th-century vihuela, continuing through the 20th-century repertoire. Lute music, tablatures, transcription procedures integrally covered. Given in alternative years. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR550 Classical Guitar Chamber Music
Preparation and performance of representative chamber music literature. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16GTAR551 Classical Guitar Pedagogy

16GTAR552 Classical Guitar Pedagogy

16GTAR553 Classical Guitar Pedagogy

16GTAR560 Independent Study
In-depth study of a topic related to classical guitar selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16GTAR575 Classical Guitar Class
Applied course in basic guitar skills. Emphasis on playing classical and folk styles. Review of current published methods and materials. Open to non-CCM students. Course repeats each qtr. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16GTAR630 Special Topics in Classical Guitar
Topics established as needed to cover new issues in the discipline. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16GTAR660 Special Topics
Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16GTAR670 Classical Guitar Ensemble
Four years participation required of all classical guitar majors. Preparation and performance of representative literature for two, three, four guitars; chamber music for guitar and voice, guitar and other instruments. For guitar majors and assisting vocalists and instrumentalists only. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16GTAR800 Classical Guitar Major Study
Preparation of two recital programs to be performed in public. Repertoire of advanced difficulty suited to the needs of the individual student. Credit Level: G. Credit Hrs: 4.00

16GTAR821 Performance Practicum
Discussion and performance of major classical guitar repertoire. Emphasis on refinement of performance skills. Each student will perform at least one substantial example of each of the following: baroque suite, contemporary work. Area majors. Credit Level: G. Credit Hrs: 2.00

16GTAR822 Performance Practicum
Discussion and performance of major classical guitar repertoire. Emphasis on refinement of performance skills. Each student will perform at least one substantial example of each of the following:
Harp Major Study

16HARP110 Harp Concentration
First-year study for harp students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HARP120 Harp Secondary
First-year secondary study in harp as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HARP200 Harp Major Study

16HARP210 Harp Concentration
Second-year study for harp students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HARP220 Harp Secondary
Second-year secondary study in harp as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HARP300 Harp Major Study
Continuation of Dizi and Bochsa-Martenot studies. J. S. Bach-Grandjany -- Largo from the Fifth Violin Sonata, Prokofiev -- Prelude in C, Handel-Salzedo -- The Harmonious Blacksmith, Maderman -- Sonatinas. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HARP310 Harp Concentration
Third-year study for harp students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HARP420 Harp Secondary
Fourth-year secondary study in harp as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HARP500 Harp Major
Additional study for undergraduate harp majors who have completed the basic degree requirements; offered for undergraduate and graduate harp majors during the Summer Session. BoK: FA. Credit Level: U. G. Credit Hrs: 4.00

16HARP510 Harp Concentration
Additional study in harp for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level harp students during the Summer Session. BoK: FA. Credit Level: U. G. Credit Hrs: 2.00

16HARP530 Harp Elective
Nonrequired private study in harp; requires permission of the department and the college. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-2.00

16HARP531 Harp Seminar
Two quarters of harp pedagogy theory, one quarter of applied supervised teaching in preparation for future teaching opportunities. BoK: FA. Credit Level: U. G. Credit Hrs: 2.00

H—University Honors course.
Harp

16HARP532
Harp Seminar
Two quarters of harp pedagogy theory, one quarter of applied supervised teaching in preparation for future teaching opportunities. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP533
Harp Seminar
Two quarters of harp pedagogy theory, one quarter of applied supervised teaching in preparation for future teaching opportunities. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP560
Independent Study
In-depth study of a topic related to the harp, selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16HARP611
Seminar in Harp Literature
Overview of harp solo, chamber, concerto, and orchestral literature. Prereq.: Music major. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP612
Seminar in Harp Literature
Overview of harp solo, chamber, concerto, and orchestral literature. Prereq: 16HARP611. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP613
Seminar in Harp Literature
Overview of harp solo, chamber, concerto and orchestral literature. Prereq: 16HARP612. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP670
Harp Ensemble
Training in ensemble playing for harp majors, including classical, popular, and orchestral music. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16HARP680
Harp Master Class
Performance preparation for student recitals, boards, competitions, and auditions. Discussion of performance elements essential for all students. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HARP800
Harp Graduate Major Study
Preparation of two recital programs, one to be performed in public. Graduate repertoire includes compositions of the difficulty of Hindemith -- Sonata for Harp, Handel -- Concerto in B-Flat Major, No. 1, Debussy - - Dances, Ravel -- Introduction and Allegro, and Mozart -- Concerto for Flute and Harp. Credit Hrs: 4.00

16HARP810
Harp Concentration
Master's-level study for students accepted for a cognate in harp performance. Credit Level: G. Credit Hrs: 2.00

16HARP820
Harp Secondary
Secondary study in harp for master's degree students. Credit Level: G. Credit Hrs: 1.00

16HARP850
Artist Diploma in Harp
First-year major study in harp for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HARP855
Artist Diploma Recital
Public performance by an artist diploma student in harp for selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

Harp

16HARP880
Master Recital
Public performance by a master's degree student in harp of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16HARP895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16HARP899
Master's Candidacy
Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16HARP900
Harp Major
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16HARP910
Harp Concentration
Doctoral-level study for students accepted for a cognate in harp performance. Credit Level: G. Credit Hrs: 2.00

16HARP920
Harp Secondary
Secondary study in harp for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16HARP930
Harp Elective
Nonrequired private study in harp for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16HARP950
Artist Diploma in Harp
Second-year major study in harp for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HARP960
Harp Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16HARP970
Doctoral Recital
Public performance by a doctoral student in harp of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HARP980
Lecture Recital
Combined public lecture and performance of a selected topic in the harp repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HARP990
DMA Document
Research and preparation of the final written project for the DMA degree in harp; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Music History and Literature

16HILT111
Music History and Literature I
The history of Western music in the Medieval, Renaissance and Baroque eras. Non-CCM students must obtain instructor's permission; fluency in reading music is assumed. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 2.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Credit Hours</th>
<th>BoK</th>
<th>Credit Level</th>
<th>Hrs</th>
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</thead>
<tbody>
<tr>
<td>16HILT112</td>
<td>Music History and Literature I</td>
<td>The history of Western music in the Medieval, Renaissance, and Baroque eras. Non-CCM students must obtain instructor's permission; fluency in reading music is assumed. Transfer Module. BoK: FA, HP. Credit: U. Credit Hrs: 2.00</td>
<td>16HILT512</td>
<td>3.00</td>
<td>FA, HP,</td>
<td>U, G</td>
<td>2.00</td>
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<tr>
<td>16HILT113</td>
<td>Music History and Literature I</td>
<td>The history of Western music in the Medieval, Renaissance, and Baroque eras. Non-CCM students must obtain instructor's permission; fluency in reading music is assumed. Transfer Module. BoK: FA, HP. Credit: U. Credit Hrs: 2.00</td>
<td>16HILT511</td>
<td>3.00</td>
<td>FA, HP,</td>
<td>U, G</td>
<td>2.00</td>
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<tr>
<td>16HILT211</td>
<td>Music History and Literature II</td>
<td>Music in Western Civilization traced from 1750 to the present, a continuation of Music History and Literature. Transfer Module. BoK: FA, HP. Credit: U. Credit Hrs: 2.00</td>
<td>16HILT212</td>
<td>3.00</td>
<td>FA, HP,</td>
<td>U, G</td>
<td>2.00</td>
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<tr>
<td>16HILT212</td>
<td>Music History and Literature II</td>
<td>Music in Western Civilization traced from 1750 to the present, a continuation of Music History and Literature. Transfer Module. BoK: FA, HP. Credit: U. Credit Hrs: 2.00</td>
<td>16HILT213</td>
<td>3.00</td>
<td>FA, HP,</td>
<td>U, G</td>
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<tr>
<td>16HILT390H</td>
<td>Impressions As Muse: The First Impressionistic Composer?</td>
<td>A study of Mussorgsky's &quot;Pictures At An Exhibition&quot; and The Changing Influences in Musical Composition in Fin-De-Siecle Russia. BoK: FA, HP. Credit: U. Credit Hrs: 3.00</td>
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<td>NA</td>
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<td>3.00</td>
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<tr>
<td>16HILT480</td>
<td>Senior Research</td>
<td>Bibliography, writing and research techniques first quarter. Research projects second and third quarters. BoK: NA. Credit: U. Credit Hrs: 2.00</td>
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<td>NA</td>
<td>U</td>
<td>2.00</td>
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<tr>
<td>16HILT501</td>
<td>Jazz Appreciation: Origins</td>
<td>Origins of jazz: ragtime, blues, minstrels, spirituals and brass bands. BoK: FA, DC. Credit: U. Credit Hrs: 3.00</td>
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<td>U</td>
<td>3.00</td>
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<tr>
<td>16HILT502</td>
<td>Jazz Appreciation: The Swing Era</td>
<td>Covers the period in which jazz was America's popular music and the continuation into Bebop, Cool, Hard Bop and Free Jazz. BoK: FA, DC. Credit: U. Credit Hrs: 3.00</td>
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<td>U</td>
<td>3.00</td>
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<tr>
<td>16HILT503</td>
<td>Jazz Appreciation: Fusion to the Present</td>
<td>Final segment of the sequence focuses on fusion of styles (e.g. jazz and rock, jazz and hip-hop) as well as revivals of earlier styles and contemporary developments. BoK: FA, DC. Credit: U. Credit Hrs: 3.00</td>
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<td>U</td>
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<tr>
<td>16HILT511</td>
<td>History of Opera</td>
<td>Historical development of the opera from ca. 1600 through the twentieth century. BoK: FA, HP. Credit: U. Credit Hrs: 3.00</td>
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<td>FA, HP,</td>
<td>U, G</td>
<td>3.00</td>
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<tr>
<td>16HILT512</td>
<td>History of Opera</td>
<td>Historical development of the opera from ca. 1600 through the twentieth century. Prereq: 16HILT511. BoK: FA, HP. Credit: U. Credit Hrs: 3.00</td>
<td></td>
<td></td>
<td>FA, HP,</td>
<td>U, G</td>
<td>3.00</td>
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</tbody>
</table>

**Course Descriptions and Prerequisites:***

- **Music History and Literature**
  - Historical development of the opera from ca. 1600 through the twentieth century. Prereq: 16HILT512. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00
  - Historical development of the opera from ca. 1600 through the twentieth century. Prereq: 16HILT512. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00
  - Historical development of the opera from ca. 1600 through the twentieth century. Prereq: 16HILT512. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00
  - Historical development of the opera from ca. 1600 through the twentieth century. Prereq: 16HILT512. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00

**BoK (Breadth of Knowledge) Coding:**
- DC: Diversity & Culture
- EC: English Composition
- FA: Fine Arts
- HP: Historical Perspectives
- HU: Humanities
- LT: Literature
- NS: Natural Sciences
- QR: Quantitative Reasoning
- SE: Social & Ethical Issues
- SS: Social Sciences
Music History and Literature

16HILT544
Jazz History
A discussion/analysis course covering the evolution of jazz in America through the various periods and styles, including New Orleans, Swing, Bebop, Cool, Hard-bop, Post-bop, and Avant-garde. Pivotal figures such as Louis Armstrong, Charlie Parker, Miles Davis, and John Coltrane are examined through a study of their music, emphasizing detailed harmonic analysis of transcribed solos, and the historical position of their music in an evolutionary context. Selected reading and listening assignments are given. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 2.00

16HILT545
Jazz History
A discussion/analysis course covering the evolution of jazz in America through the various periods and styles, including New Orleans, Swing, Bebop, Cool, Hard-bop, Post-bop, and Avant-garde. Pivotal figures such as Louis Armstrong, Charles Parker, Miles Davis, and John Coltrane are examined through a study of their music, emphasizing detailed harmonic analysis of transcribed solos, and the historical position of their music in an evolutionary context. Selected reading and listening assignments are given. Prereq: 16HILT544. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 2.00

16HILT546
Jazz History
A discussion/analysis course covering the evolution of jazz in America through the various periods and styles, including New Orleans, Swing, Bebop, Cool, Hard-bop, Post-bop, and Avant-garde. Pivotal figures such as Louis Armstrong, Charlie Parker, Miles Davis, and John Coltrane are examined through a study of their music, emphasizing detailed harmonic analysis of transcribed solos, and the historical position of their music in an evolutionary context. Selected reading and listening assignments are given. Prereq: 16HILT544. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 2.00

16HILT560
Independent Study in Music
In-depth study of a topic in music history and literature, selected by the student in consultation with a member of the faculty. By permission of the Division Head. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16HILT571
Early Music Lab
Hands-on exploration of Medieval, Renaissance, and early Baroque repertoires for instruments and voices. Historical instruments are provided. Sec. 001: Reeds and Brass (experience on reeds or brass required) Sec. 002: Recorders and Crumhorns (beginners welcome) Sec. 003: Advanced Viola da Gamba (perm of instr) Sec. 004: Voices (majors and non-majors welcome) Sec. 005: Beginning Viola da Gamba (string experience highly recommended) BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HILT581
World Music Performance Labs
Students learn to play Andean panpipes and tarkas (vertical duet flutes), Afro-Bolivian saya, and African karimbas and mbira of the Shona people of Zimbabwe. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HILT582
World Music Performance Labs
Students learn to play Andean panpipes and tarkas (vertical duet flutes), Afro-Bolivian saya, and African karimbas and mbira of the Shona people of Zimbabwe. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HILT583
World Music Performance Labs
Students learn to play Andean panpipes and tarkas (vertical duet flutes), Afro-Bolivian saya, and African karimbas and mbira of the Shona people of Zimbabwe. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 0.00-1.00

Music History and Literature

16HILT583
World Music Performance Labs
Students learn to play Andean panpipes and tarkas (vertical duet flutes), Afro-Bolivian saya, and African karimbas and mbira of the Shona people of Zimbabwe. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HILT610
Women in Music
History of women's activities in Western music from the time of the ancient Greeks to the present. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16HILT611
Music of the Twentieth Century
Historical perspective; survey of composers and styles; study of selected works by American and European composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT612
Music of the Twentieth Century
Historical perspective; survey of composers and styles; study of selected works by American and European composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT613
Music of the Twentieth Century
Historical perspective; survey of composers and styles; study of selected works by American and European composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT620
Chamber Music Literature with Piano
A survey of major works of chamber music literature which include the piano: Baroque through 20th century. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 3.00

16HILT621
Survey of Song Literature: German Lied until 1850
Evolution of the German Lied in the eighteenth century until the death of Schumann. Emphasis on solo vocal literature, interpretation of texts, poets significant to particular composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT622
Survey of Song Literature: German Lied from 1850 to late 20th Century
Solo vocal repertoire from Liszt to Henze. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT623
Survey of Song Literature: Scandinavian and Slavic Song
Includes Mussorgsky, Chaikovsky, Rachmaninoff, Prokofiev, Dvorak, Szymanowski, Grieg, Rangstrom, Stenhammar et al. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT625
Survey of Song Literature: French mØlodie until Debussy
Includes Berlioz, Duparc, Faure, Debussy. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT626
Survey of Song Literature: 20th Century French me lodie, Spanish, Italian Song
Includes Ravel, Poulenc, Falla, Turina, Granados, Respighi et al. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT627
Survey of Song Literature: British and American Art-Song
Survey of the art songs by various British and American composers. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16HILT630
Special Topics
Topics established every quarter by Department/Division. BoK: FA.
Music History and Literature

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>Survey of Wind Literature</td>
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<td>Survey of Wind Chamber Music</td>
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<td>16HILT648</td>
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</table>

Hrs: University Honors course.
Music History and Literature

16HILT501
Graduate Music History Review
Medieval and Renaissance eras; emphasis on composers' styles in relation to cultural backgrounds. Credit Level: G. Credit Hrs: 3.00

16HILT602
Graduate Music History Review
Continuation of 16HILT601; Baroque and Classic eras. Credit Level: G. Credit Hrs: 3.00

16HILT603
Graduate Music History Review
Continuation of 16HILT602; 19th and 20th centuries. Credit Level: G. Credit Hrs: 3.00

16HILT721
Survey of Piano Literature
From J.S. Bach through Beethoven. Music for the piano, emphasizing style, form, and performance styles. Credit Level: G. Credit Hrs: 2.00

16HILT722
Survey of Piano Literature
Mendelssohn through Brahms. Credit Level: G. Credit Hrs: 2.00

16HILT723
Survey of Piano Literature
1900 to the present. Credit Level: G. Credit Hrs: 2.00

16HILT801
Graduate History and Style I
A sampling of historical concepts, significant stylistic developments, social, cultural, and historiographical contexts, and issues in performance practice from antiquity through the sixteenth century. Credit Level: G. Credit Hrs: 3.00

16HILT802
Graduate History and Style II
A sampling of historical concepts, significant stylistic developments, social, cultural, and historiographical contexts, and issues in performance practice within the seventeenth and eighteenth centuries. Credit Level: G. Credit Hrs: 3.00

16HILT803
Graduate History and Style III
A sampling of historical concepts, significant stylistic developments, social, cultural, and historiographical contexts, and issues in performance practice from the nineteenth century to the present. Credit Level: G. Credit Hrs: 3.00

16HILT811
Notation of Polyphonic Music
Historical study of polyphonic music notation. Credit Level: G. Credit Hrs: 3.00

16HILT812
Notation of Polyphonic Music
Historical study of polyphonic music notation: scores, partituras, and tablatures for keyboard and lute. Credit Level: G. Credit Hrs: 3.00

16HILT821
Graduate Research and Writing
Music bibliography, writing, and research techniques in music. Credit Level: G. Credit Hrs: 3.00

16HILT832
Renaissance in England, Sacred Music
Traces developments from 1485 to 1625. Credit Level: G. Credit Hrs: 3.00

16HILT840
Advanced Topics
Specialized topics for advanced students in MM, DMA, and PHD programs. Credit Level: G. Credit Hrs: 3.00-4.00

16HILT841
Medieval Advanced Topics
Specialized topics on music of the medieval period. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT842
Renaissance Advanced Topics
Specialized topics on music of the renaissance. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT843
Seventeenth-Century Advanced Topics
Specialized topics on music of the seventeenth century. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT844
Eighteenth-Century Advanced Topics
Specialized topics on music of the eighteenth century. Emphasis on scholarship as well as repertoire; research paper required. Credit Level: G. Credit Hrs: 3.00

16HILT845
Nineteenth-Century Advanced Topics
Specialized topics on music of the nineteenth century. Emphasis on scholarship as well as repertoire; research paper is required. Credit Level: G. Credit Hrs: 3.00

16HILT846
Twentieth-Century Advanced Topics
Specialized topics on music of the twentieth century. Emphasis on scholarship as well as repertoire; research paper is required. Credit Level: G. Credit Hrs: 3.00

16HILT847
American Music Advanced Topics
Specialized topics on American music. Emphasis on scholarship as well as repertoire; research paper is required. Credit Level: G. Credit Hrs: 3.00

16HILT848
Music in Culture Advanced Topics
Specialized topics on musical culture issues. Emphasis on scholarship as well as repertoire; research paper is required. Credit Level: G. Credit Hrs: 3.00

16HILT850
Proseminar in Musicology
Selected readings in musicology; subject or era different each quarter. Credit Level: G. Credit Hrs: 3.00

16HILT854
Eighteenth Century Advanced Topics
Specialized topics on music of the eighteenth century. Emphasis on scholarship as well as repertoire; research paper is required. Credit Level: G. Credit Hrs: 3.00

16HILT855
Nineteenth Century Advanced Topics
Specialized topics on music of the nineteenth century. Emphasis on scholarship as well as repertoire; research paper is required. Credit Level: G. Credit Hrs: 3.00

16HILT856
Twentieth Century Advanced Topics
Specialized topics on music of the twentieth century. Emphasis on scholarship as well as repertoire; research paper is required. Credit Level: G. Credit Hrs: 3.00

16HILT860
Musicology Colloquium
A forum for students and faculty to interact regarding the study of music. While the format of individual meetings will change, the focus
Music History and Literature

16HILT860
Musicology Colloquium
will be on reading and discussing relevant literature and discussing current issues and methodologies. Career issues will also be considered. Credit Level: G. Credit Hrs: 1.00

16HILT870
Directed Readings
PreReq.: Perm. of instr. Credit Level: G. Credit Hrs: 1.00-3.00

16HILT871
Music of the Middle Ages
Mental forms, practices, and thought of the era and their social and cultural context. Credit Level: G. Credit Hrs: 3.00

16HILT872
Music of the Ars Nova and Early Renaissance
Mental forms, practices, and thought of the era and their social and cultural context. Credit Level: G. Credit Hrs: 3.00

16HILT873
Music of the High Renaissance
Mental forms, practices, and thought of the era and their social and cultural context. Credit Level: G. Credit Hrs: 3.00

16HILT874
Music of the Early and Middle Baroque
Survey of music in both theory and practice from c. 1580-1680. The national styles of Italy, Germany, and France are studied through a canon of works. Credit Level: G. Credit Hrs: 3.00

16HILT875
Music of the Late Baroque
Survey of music in both theory and practice from c. 1680-1750. The "international style" is studied through a canon of works, culminating with the music of Bach and Handel. Credit Level: G. Credit Hrs: 3.00

16HILT876
Music of the Classical Period
Stylistic changes in European music from mid-century through Haydn and Mozart; schools, styles, genres, trends. Credit Level: G. Credit Hrs: 3.00

16HILT884
American Music I: From Colonization to Civil War
Survey of both cultivated and vernacular music in the New World c. 1600-1865. Topics include Native American music, psalmody, ballads, African slave music, the First New England School, Stephen Foster, shape-note hymnody, and marches. Credit Level: G. Credit Hrs: 3.00

16HILT885
American Music II: From Reconstruction to Cold War
Survey of both cultivated and vernacular music in the United States 1865-c.1950. Study of musical forms, practices, and repertoire in their cultural context. Topics include the Second New England School, Charles Ives, Tin Pan Alley, blues, early jazz, country-western, composers of the inter-war period, and American musical theater. Credit Level: G. Credit Hrs: 3.00

16HILT890
Thesis -- M.M. Music History
Research and preparation of the final written project for the MM degree in music history; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-9.00

16HILT999
Master's Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16HILT980
Research in Musicology
Individual investigation into a specific topic in the field of musicology; approved and supervised by a member of the faculty. Credit Level: G. Credit Hrs: 1.00-3.00

Music History and Literature

16HILT981
Seminar in Choral Literature
Focuses on the performance problems of various works within the general body of choral literature; offered during the Summer Session. Credit Level: G. Credit Hrs: 3.00

16HILT982
Seminar Musicology
Readings and discussion of selected topics in musicology; topic varies each quarter. Credit Level: G. Credit Hrs: 4.00

16HILT983
Seminar in Organ Literature
Focuses on the performance problems of selected repertoire in the general body of organ literature. Credit Level: G. Credit Hrs: 3.00

16HILT984
Seminar in Performance Practices
Focuses on performance problems in music from the Medieval to Early Baroque periods. Credit Level: G. Credit Hrs: 3.00

16HILT988
Seminar in Musicology
Readings and discussion of selected topics in musicology; topic varies each quarter. Credit Level: G. Credit Hrs: 4.00

16HILT989
Seminar in Musicology
Readings and discussion of selected topics in musicology; topic varies each quarter. Credit Level: G. Credit Hrs: 4.00

16HILT990
Dissertation -- PhD
Research and preparation of the final written document for the Ph.D. degree in musicology; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

French Horn

16HORN100
French Horn Major Study
Technical requirements: all major and minor scales, study of the transpositions commonly used for horn. Etudes of Kopprasch and Gallay. Solo material of the difficulty of Mozart Concerto No. 3. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16HORN110
French Horn Concentration
First-year study for horn students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HORN120
French Horn Secondary
First-year secondary study for horn students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HORN200
French Horn Major Study
Continuation of transpositions: orchestral excerpts. Etudes of Kopprasch, Gallay, and Maxime-Alphonse. Solo material of the difficulty of Mozart Concerto No. 2 and Strauss Concerto No. 1. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HORN210
French Horn Concentration
Second-year study for horn students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HORN220
French Horn Secondary
Second-year secondary study in horn as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

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H=University Honors course.
BoK (Breadth of Knowledge) Coding.
DC: Diversity & Culture.
EC: English composition.
FA: Fine Arts.
HP: Historical Perspectives.
HU: Humanities.
LT: Literature.
NS: Natural Sciences.
QR: Quantitative Reasoning.
SE: Social & Ethical Issues.
SS: Social Sciences.
French Horn

16HORN300  
French Horn Major Study
Continuation of orchestral studies; advanced etude work; solo works of the difficulty of Hindemith Sonate, Beethoven Sonata, and Haydn Concerti. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HORN310  
French Horn Concentration
Third-year study for horn students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HORN320  
French Horn Secondary
Third-year secondary study in horn as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HORN400  
French Horn Major Study
Continuation of orchestral studies; advanced etude work. Solos of the difficulty of Mozart Concerto No. 4; R. Strauss Concerto No. 2; Gliere Concerto. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HORN410  
French Horn Concentration
Fourth-year study for horn students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HORN420  
French Horn Secondary
Fourth-year secondary study in horn as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HORN500  
French Horn Major
Additional study for undergraduate horn majors who have completed the basic degree requirements; offered for undergraduate and graduate horn majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16HORN510  
French Horn Concentration
Additional study in horn for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level horn students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HORN530  
French Horn Elective
Nonrequired private study in horn; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16HORN560  
Independent Study
In-depth study of a topic related to the horn, selected by the student in consultation with a member of the faculty. Permission of instructor and division head. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16HORN670  
Horn Studio Class
Weekly master class covering aspects of performance and audition preparation, literature, history of the horn, and ensemble skills. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16HORN675  
Seminar in Horn
In-depth study of varied topics related to the horn. Readings, listening and performing assignments, term papers and class presentations may be required relating to the designated subject matter. Topics may be in the areas of history, literature, or performance. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

H=University Honors course.
French Horn

16HORN930
French Horn Elective
Hrs: 1.00-2.00

16HORN950
Artist Diploma in French Horn
Second-year major study in horn for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HORN960
French Horn Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16HORN970
Doctoral Recital
Public performance by a doctoral student in horn of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HORN980
Lecture Recital
Combined public lecture and performance of a selected topic in the horn repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HORN990
DMA Document
Research and preparation of the final written project for the DMA degree in horn; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Harpsichord

16HSC100
Harpsichord Major Study
Technical requirements: facility in major and minor scales, arpeggios, etc. and special exercises designed and guided by the teacher. Works by J.S. Bach (Two- and Three-Part Inventions, W.T.C. Book I, French Suites, etc.), F. Couperin, D. Scarlatti, etc. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16HSC110
Harpsichord Concentration
First-year study for harpsichord students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HSC120
Harpsichord Secondary
First-year study for harpsichord students in harpsichord as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HSC200
Harpsichord Major Study
Continuation of the above and strengthening of the technical skill. Also familiarization with various stylistic aspects of current performance. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HSC210
Harpsichord Concentration
Second-year study for harpsichord students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HSC220
Harpsichord Secondary
Second-year secondary study in harpsichord as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HSC300
Harpsichord Major Study
Broad expansion of 17th, 18th and 20th century keyboard repertoire. Active participation in chamber music playing (both continuo and obligato parts). BoK: FA. Credit Level: U. Credit Hrs: 4.00

Harpsichord

16HSC310
Harpsichord Concentration
Third-year study for harpsichord students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HSC320
Harpsichord Secondary
Third-year secondary study in harpsichord as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HSC400
Harpsichord Major Study
Preparation for a solo recital. Acquiring the skill of figured bass playing from unrealized parts. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16HSC410
Harpsichord Concentration
Fourth-year study for harpsichord students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16HSC420
Harpsichord Secondary
Fourth-year secondary study in harpsichord as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16HSC500
Harpsichord Major
Additional study for undergraduate harpsichord majors who have completed the basic degree requirements; offered for undergraduate and graduate harpsichord majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16HSC510
Harpsichord Concentration
Additional study in harpsichord for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level harpsichord students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16HSC530
Harpsichord Elective
Nonrequired private study in harpsichord; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16HSC560
Independent Study
In-depth study of a topic related to the harpsichord, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16HSC570
Introduction to Harpsichord
An introductory course in basic facets of harpsichord playing encompassing technique, interpretation of ornaments, phrasing and articulation, etc. This course is designed primarily for piano or organ majors. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16HSC600
Harpsichord Graduate Major Study
Preparation of two recital programs, one to be performed in public. In performance, the student should demonstrate not only highly polished technical skill, but also musical maturity and stylistic comprehension of the works. In the course of study the student is also expected to become familiar with most of the keyboard works written before 1770. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
Harpsichord

16HSC810
Harpsichord Concentration
Master's level study for students accepted for a cognate in harpsichord performance. Credit Level: G. Credit Hrs: 2.00

16HSC820
Harpsichord Secondary
Secondary study in harpsichord for master's degree students. Credit Level: G. Credit Hrs: 1.00

16HSC850
Artist Diploma in Harpsichord
Similar to 16HSC800 with more emphasis on performance (total of four recitals). First-year major study in harpsichord for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HSC880
Master Recital
Public performance by a master's degree student in harpsichord of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16HSC900
Harpsichord Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16HSC910
Harpsichord Concentration
Doctoral level study for students accepted for a cognate in harpsichord performance. Credit Level: G. Credit Hrs: 2.00

16HSC920
Harpsichord Secondary
Secondary study in harpsichord for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16HSC930
Harpsichord Elective
Nonrequired private study in harpsichord for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16HSC950
Artist Diploma in Harpsichord
Similar to 16HSC800 with more emphasis on performance (total of four recitals). Second-year major study in harpsichord for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16HSC960
Harpsichord Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16HSC970
Doctoral Recital
Public performance by a doctoral student in harpsichord of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16HSC980
Lecture Recital
Combined public lecture and performance of a selected topic in the harpsichord repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00

16HSC980
Lecture Recital
Level: G. Credit Hrs: 3.00

16HSC990
DMA Document
Research and preparation of the final written project for the degree in harpsichord; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

16INTR500
Lucca: Italian Language Study
Italian language study designed to improve the students' oral and written proficiencies in vocabulary and grammar. Three levels are available based upon the student's previous studies. BoK: HU. Credit Level: U, G. Credit Hrs: 5.00

16INTR610
Managing a Professional Career
Examination of practical career management issues in the professional performance arena, including resumes, marketing and promotion, taxes and unions. Aimed primarily at instrumental and voice students contemplating professional performance careers. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

H=University Honors course.
Jazz Double Bass

16JZDB300 Jazz Double Bass Major Study
Third-year applied music lessons for jazz double bass majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZDB310 Jazz Double Bass Concentration
Third-year study for jazz double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZDB320 Jazz Double Bass Secondary
Third-year secondary study in jazz double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZDB400 Jazz Double Bass Major Study
Fourth-year applied music lessons for jazz double bass majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZDB410 Jazz Double Bass Concentration
Fourth-year study for jazz double bass students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZDB420 Jazz Double Bass Secondary
Fourth-year secondary study in jazz double bass as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZDB500 Jazz Double Bass Major Study
Additional study for undergraduate jazz double bass majors who have completed the basic degree requirements. BoK: FA. Credit Level: U. G. Credit Hrs: 4.00

16JZDB510 Jazz Double Bass Concentration
Additional study in jazz double bass for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U. G. Credit Hrs: 2.00

16JZDB530 Jazz Double Bass Elective
Nonrequired private study in jazz double bass; requires permission of the department and college. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-2.00

16JZDB560 Independent Study, Jazz Double Bass
In-depth study of a topic related to jazz double bass, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-12.00

16JZDB800 Jazz Double Bass Major Study
Graduate-level applied music lessons for jazz double bass majors. Study and preparation of material suitable for the public recital programs. Credit Level: G. Credit Hrs: 4.00

16JZDB895 Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Guitar

16JZGT100 Jazz Guitar Major Study
First-year applied music lessons in jazz guitar for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZGT110 Jazz Guitar Concentration
First-year study for jazz guitar students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZGT120 Jazz Guitar Secondary
First-year secondary study in jazz guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZGT200 Jazz Guitar Major Study
Second-year applied music lessons for jazz guitar majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZGT210 Jazz Guitar Concentration
Second-year study for jazz guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZGT220 Jazz Guitar Secondary
Second-year secondary study in jazz guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZGT300 Jazz Guitar Major Study
Third-year applied music lessons for jazz guitar majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZGT310 Jazz Guitar Concentration
Third-year study for jazz guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZGT320 Jazz Guitar Secondary
Third-year secondary study in jazz guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZGT400 Jazz Guitar Major Study
Fourth-year applied music lessons for jazz guitar majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZGT410 Jazz Guitar Concentration
Fourth-year study for jazz guitar students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZGT420 Jazz Guitar Secondary
Fourth-year secondary study in jazz guitar as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZGT500 Jazz Guitar Major Study
Additional study for undergraduate jazz guitar majors who have completed the basic degree requirements. BoK: FA. Credit Level: U. G. Credit Hrs: 4.00

16JZGT510 Jazz Guitar Concentration
Additional study in jazz guitar for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U. G. Credit Hrs: 2.00

16JZGT530 Jazz Guitar Elective
Nonrequired private study in jazz guitar; requires permission of the department and college. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-2.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16JZGT560</td>
<td>Independent Study, Jazz Guitar</td>
<td>In-depth study of a topic related to jazz guitar, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00</td>
</tr>
<tr>
<td>16JZGT800</td>
<td>Jazz Guitar Major Study</td>
<td>Graduate-level applied music lessons for jazz guitar majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16JZGT895</td>
<td>Practicum</td>
<td>Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16JZPA100</td>
<td>Jazz Piano Major</td>
<td>First-year applied music lessons in jazz piano for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>16JZPA110</td>
<td>Jazz Piano Concentration</td>
<td>First-year study for jazz piano students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16JZPA120</td>
<td>Jazz Piano Secondary</td>
<td>First-year secondary study in jazz piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16JZPA200</td>
<td>Jazz Piano Major</td>
<td>Second-year applied music lessons for jazz piano majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16JZPA210</td>
<td>Jazz Piano Concentration</td>
<td>Second-year study for jazz piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16JZPA220</td>
<td>Jazz Piano Secondary</td>
<td>Second-year secondary study in jazz piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16JZPA300</td>
<td>Jazz Piano Major</td>
<td>Third-year applied music lessons for jazz piano majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16JZPA310</td>
<td>Jazz Piano Concentration</td>
<td>Third-year study for jazz piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16JZPA320</td>
<td>Jazz Piano Secondary</td>
<td>Third-year secondary study in jazz piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16JZPA400</td>
<td>Jazz Piano Major</td>
<td>Fourth-year applied music lessons for jazz piano majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16JZPA410</td>
<td>Jazz Piano Concentration</td>
<td>Fourth-year study for jazz piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16JZPA420</td>
<td>Jazz Piano Secondary</td>
<td>Fourth-year secondary study in jazz piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16JZPA500</td>
<td>Jazz Piano Major</td>
<td>Additional study for undergraduate jazz piano majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16JZPA510</td>
<td>Jazz Piano Concentration</td>
<td>Additional study in jazz piano for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16JZPA530</td>
<td>Jazz Piano Elective</td>
<td>Nonrequired private study in jazz piano; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00</td>
</tr>
<tr>
<td>16JZPA560</td>
<td>Independent Study</td>
<td>In-depth study of a topic related to jazz piano; selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00</td>
</tr>
<tr>
<td>16JZPA800</td>
<td>Jazz Piano Major</td>
<td>Graduate-level applied music lessons for jazz piano majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16JZPA895</td>
<td>Practicum</td>
<td>Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16JZPR100</td>
<td>Jazz Percussion Major</td>
<td>First-year applied music lessons in jazz percussion for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>16JZPR110</td>
<td>Jazz Percussion Concentration</td>
<td>First-year study for jazz percussion students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16JZPR120</td>
<td>Jazz Percussion Secondary</td>
<td>First-year secondary study in jazz percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16JZPR200</td>
<td>Jazz Percussion Major</td>
<td>Second-year applied music lessons for jazz percussion majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16JZPR210</td>
<td>Jazz Percussion Concentration</td>
<td>Second-year study for jazz percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
</tbody>
</table>

H=University Honors course.  
Instruction in small group jazz performance with emphasis on the practical application of chord/scale theory, the development of the ear through transcription of recorded solos, and the principles of successful practical application of chord/scale theory, the development of the ear through transcription of recorded solos, and the principles of successful practical application of chord/scale theory, the development of the ear through transcription of recorded solos, and the principles of successful practical application of chord/scale theory, the development of the ear through transcription of recorded solos, and the principles of successful practical application of chord/scale theory, the development of the ear through transcription of recorded solos, and the principles of successful practical application of chord/scale theory, the development of the ear through transcription of recorded solos, and the principles of successful practical application of chord/scale theory, the 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Jazz Studies

16JZST514  
Jazz Theory I  
Basic chord construction, extended chords, nomenclature, appropriate spacing, and voice leading. Ear-training exercises. Recording of student arrangements. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16JZST515  
Jazz Theory II  
Chord/scale relationships, melodic analysis, approach notes, harmonic analysis, chord substitutions, and extensive tune study. Ear-training exercises. Recording and discussion of student compositions for 5-piece combo. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16JZST516  
Jazz Arranging for Small Ensemble  
Arranging techniques for up to five horns. Mechnical and nonmechnical voicings, approach harmonies, linear techniques, ranges and transpositions, rhythm section writing, and score study. Recording and discussion of student arrangements. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 2.00

16JZST521  
Jazz Composing/Arranging for Large Ensemble I  
In-depth score study of Nestico, Ellington, and others. Mechanical and nonmechanical voicings, with emphasis on section writing. Recording and discussion of student big band charts. Perm of Instructor. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 3.00

16JZST522  
Jazz Composing/Arranging for Large Ensemble II  
In-depth score study of Thad Jones, Bob Brookmeyer, Bob Mintzer, and others. More advanced voicings, approach techniques, and substitute chords. Writing for woodwinds and percussion. Recording and discussion of student big band charts. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16JZST523  
Advanced Jazz Composition and Arranging  
A flexible seminar based on student interests. Possible topics include advanced compositional techniques, contemporary harmonic trends, writing for strings, studio orchestra, unusual instrumentation, and instrumental backgrounds for vocalists. Recording and discussion of diverse student projects. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16JZST525  
Jazz Combo  
Small combos focusing on the preparation and memorization of a large selection of standard tunes, jazz classics, and contemporary music. Aesthetic considerations as well as practical "on-the-job" guidelines. May be repeated for credit. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-2.00

16JZST526  
Second Jazz Combo  
Small combos focusing on the preparation and memorization of a large selection of standard tunes, jazz classics, and contemporary music. Aesthetic considerations as well as practical "on-the-job" guidelines. May be repeated for credit. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16JZST534  
Jazz Guitar Ensemble  
Performance, arrangement, and composition of literature for 2-6 guitars. Development of single line techniques and "comping" skills. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16JZST535  
Jazz Guitar Ensemble  
Performance, arrangement, and composition of literature for 2-6 guitars. Development of single line techniques and "comping" skills. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16JZST536  
Jazz Guitar Ensemble  
Performance, arrangement, and composition of literature for 2-6 guitars. Development of single line techniques and "comping" skills. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16JZST541  
Sound Reinforcement and Recording Techniques  
An introduction to audio equipment and its application in sound reinforcement and recording. Topics include basic acoustics, audio electronics, and the set-up and operation of live sound and analog and digital studio recording equipment. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16JZST542  
Digital Recording and Editing  
The application of multi-track recording techniques using digital formats; includes hands-on experience recording jazz and other performing groups. An introduction to editing using Protools software. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16JZST551  
The Business of Music  
Provides information about the entrepreneurial skills required of today's musician as well as an overview of music and music related career possibilities. Topics include promoting your career auditions/interviews, CD production, copyright and performance rights societies, contracts, themusicians union, grants and performers etiquette. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16JZST560  
Independent Study  
In-depth study of a topic related to jazz selected by the student in consultation with a member of the faculty. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZST630  
Special Topics: Jazz Studies  
Topics established every quarter by department or division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16JZST801  
Jazz Styles and Analysis  
History, theory, and performance practice of jazz from its beginning through the swing period. Scholarly study is combined with practical experience through a simultaneous exploration of history and literature, theory and ear training, and the recreation of authentic performance styles. Assignments include extensive listening, historical readings, analysis, transcriptions, and class performances on the student's instrument. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16JZST802  
Jazz Styles and Analysis  
Continuation of 16JZST801. Period of study includes bebop era through the 1950's. Prereq: 16JZST801. Credit Level: G. Credit Hrs: 3.00

16JZST803  
Jazz Styles and Analysis  
Continuation of 16JZST801 and 802. Period of study includes the 1960's through the present. Prereq: 16JZST802. Credit Level: G. Credit Hrs: 3.00

16JZST804  
Digital Recording and Editing  
An overview of jazz ensemble directing and program administration at the University and high school levels. Topics include conducting techniques, rehearsal strategies, programming, and auditions. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

16JZST805  
Seminar in Jazz Pedagogy  
Continuation of 16JZST804. Topics include concert logistics, jazz festivals, guest artists, and course content for jazz improvisation and

H=University Honors course.
Jazz Studies

16JZST805
Seminar in Jazz Pedagogy
theory classes. Credit Level: G. Credit Hrs: 2.00

16JZST806
Seminar in Jazz Pedagogy
Continuation of 16JZST804 and 805. Topics include rhythm section
techniques, private lesson curriculum, preparation of workshops, course
content for jazz arranging and composition classes, and developing
college jazz curriculum. Credit Level: G. Credit Hrs: 2.00

Jazz Saxophone

16JZSX100
Jazz Saxophone Major
First-year applied music lessons in jazz saxophone for B.M. students.
BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZSX110
Jazz Saxophone Concentration
First-year study for jazz saxophone students in the B.A. program in
music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZSX120
Jazz Saxophone Secondary
First-year secondary study in jazz saxophone as required for specific
majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZSX200
Jazz Saxophone Major
Second-year applied music lessons for jazz saxophone majors. BoK:
Credit Level: U. Credit Hrs: 4.00

16JZSX210
Jazz Saxophone Concentration
Second-year study for jazz saxophone students in the B.A. program in
music or in the music education program. BoK: FA. Credit Level: U.
Credit Hrs: 2.00

16JZSX220
Jazz Saxophone Secondary
Second-year secondary study in jazz saxophone as required for specific
majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZSX300
Jazz Saxophone Major
Third-year applied music lessons for jazz saxophone majors. BoK: FA.
Credit Level: U. Credit Hrs: 4.00

16JZSX310
Jazz Saxophone Concentration
Third-year study for jazz saxophone students in the B.A. program in
music or in the music education program. BoK: FA. Credit Level: U.
Credit Hrs: 2.00

16JZSX320
Jazz Saxophone Secondary
Third-year secondary study in jazz saxophone as required for specific
majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZSX400
Jazz Saxophone Major
Fourth-year applied music lessons for jazz saxophone majors. BoK: FA.
Credit Level: U. Credit Hrs: 4.00

16JZSX410
Jazz Saxophone Concentration
Fourth-year study for jazz saxophone students in the B.A. program in
music or in the music education program. BoK: FA. Credit Level: U.
Credit Hrs: 2.00

16JZSX420
Jazz Saxophone Secondary
Fourth-year secondary study in jazz saxophone as required for specific
majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZSX500
Jazz Saxophone Major
Additional study for undergraduate jazz saxophone majors who have
completed the basic degree requirements. BoK: FA. Credit Level: U, G.
Credit Hrs: 4.00

16JZSX510
Jazz Saxophone Concentration
Additional study in jazz saxophone for undergraduate students at the
concentration level who have completed the basic degree requirements.
BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZSX530
Jazz Saxophone Elective
Non-required private study in jazz saxophone; requires permission of the
department and the college. BoK: FA. Credit Level: U, G. Credit Hrs:
1.00-20.00

16JZSX560
Independent Study
In-depth study of a topic related to jazz saxophone selected by the
student in consultation with a member of the faculty. Permission of
instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZSX800
Jazz Saxophone Major Study
Graduate-level applied music lessons for jazz saxophone majors.
Study and preparation of material suitable for the public recital program.
Credit Level: G. Credit Hrs: 4.00

16JZSX895
Practicum
Practical experience in the professional world. Credit Level: G. Credit
Hrs: 1.00

Jazz Trombone

16JZTB100
Jazz Trombone Major
First-year applied music lessons in jazz trombone for B.M. students.
BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZTB110
Jazz Trombone Concentration
First-year study for jazz trombone students in the B.A. program in
music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTB120
Jazz Trombone Secondary
First-year secondary study in jazz trombone as required for specific
majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTB200
Jazz Trombone Major
Second-year applied music lessons for jazz trombone majors. BoK: FA.
Credit Level: U. Credit Hrs: 4.00

16JZTB210
Jazz Trombone Concentration
Second-year study for jazz trombone students in the B.A. program in
music or in the music education program. BoK: FA. Credit Level: U.
Credit Hrs: 2.00

16JZTB220
Jazz Trombone Secondary
Second-year secondary study in jazz trombone as required for specific
majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTB300
Jazz Trombone Major
Third-year applied music lessons for jazz trombone majors. BoK: FA.
Credit Level: U. Credit Hrs: 4.00

H=University Honors course.  
Jazz Trombone

16JZTB310
Jazz Trombone Concentration
Third-year study for jazz trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTB320
Jazz Trombone Secondary
Third-year secondary study in jazz trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTB400
Jazz Trombone Major
Fourth-year applied music lessons for jazz trombone majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZTB410
Jazz Trombone Concentration
Fourth-year study for jazz trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTB420
Jazz Trombone Secondary
Fourth-year secondary study in jazz trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTB500
Jazz Trombone Major
Additional study for undergraduate jazz trombone majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZTB510
Jazz Trombone Concentration
Additional study in jazz trombone for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZTB530
Jazz Trombone Elective
Nonrequired private study in jazz trombone; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16JZTB560
Independent Study
In-depth study of a topic related to jazz trombone, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZTB800
Jazz Trombone Major Study
Graduate-level applied music lessons for jazz trombone majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00

16JZTB895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Trumpet

16JZTP100
Jazz Trumpet Major
First-year applied music lessons in jazz trumpet for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZTP110
Jazz Trumpet Concentration
First-year study for jazz trumpet students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTP120
Jazz Trumpet Secondary
First-year secondary study in jazz trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTP200
Jazz Trumpet Major
Second-year applied music lessons for jazz trumpet majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZTP210
Jazz Trumpet Concentration
Second-year study for jazz trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTP220
Jazz Trumpet Secondary
Second-year secondary study in jazz trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTP300
Jazz Trumpet Major
Third-year applied music lessons for jazz trumpet majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZTP310
Jazz Trumpet Concentration
Third-year study for jazz trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTP320
Jazz Trumpet Secondary
Third-year secondary study in jazz trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTP400
Jazz Trumpet Major
Fourth-year applied music lessons for jazz trumpet majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZTP410
Jazz Trumpet Concentration
Fourth-year study for jazz trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZTP420
Jazz Trumpet Secondary
Fourth-year secondary study in jazz trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZTP500
Jazz Trumpet Major
Additional study for undergraduate jazz trumpet majors who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16JZTP510
Jazz Trumpet Concentration
Additional study in jazz trumpet for undergraduate students at the concentration level who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16JZTP530
Jazz Trumpet Elective
Nonrequired private study in jazz trumpet; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16JZTP560
Independent Study
In-depth study of a topic related to jazz trumpet, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

H=University Honors course.
Jazz Trumpet

16JZTP560
Independent Study
In-depth study of a topic related to jazz trumpet, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16JZTP800
Jazz Trumpet Major Study
Graduate-level applied music lessons for jazz trumpet majors. Study and preparation of material suitable for the public recital program. Credit Level: G. Credit Hrs: 4.00

16JZTP895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

Jazz Voice

16JZVO100
Jazz Voice Major Study
First-year applied music lessons in jazz voice for B.M. students. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16JZVO110
Jazz Voice Concentration
First-year study for jazz voice students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZVO120
Jazz Voice Secondary
First-year secondary study in jazz voice as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZVO200
Jazz Voice Major Study
Second-year applied music lessons for jazz voice majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZVO210
Jazz Voice Concentration
Second-year study for jazz voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZVO220
Jazz Voice Secondary
Second-year secondary study in jazz voice as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZVO300
Jazz Voice Major Study
Third-year applied music lessons for jazz voice majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZVO310
Jazz Voice Concentration
Third-year study for jazz voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16JZVO320
Jazz Voice Secondary
Third-year secondary study in jazz voice as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16JZVO400
Jazz Voice Major Study
Fourth-year applied music lessons for jazz voice majors. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16JZVO410
Jazz Voice Concentration
Fourth-year study for jazz voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

Music Theory and Composition

16MTHC100
Composition Major Study
Private lessons designed to impart specific objective compositional techniques dealing with mechanics of notation, rhythm, line, texture, and form. Includes aural and intellectual exposure to a broad range of contemporary compositional types. Specific composition assignments in small forms. Composition majors only. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16MTHC101
Basic Theory
Elements of music: notation; aural and sight reading skills. Harmony and melody; lead sheets. Primarily musical theater repertoire. Musical Theater majors only. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16MTHC102
Basic Theory
Elements of music: notation; aural and sight reading skills. Harmony and melody; lead sheets. Primary musical theater repertoire. Musical Theater majors only. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16MTHC103
Basic Theory
Elements of music: notation; aural and sight reading skills. Harmony and melody; lead sheets. Primarily musical theater repertoire. Musical Theater majors only. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16MTHC105
Sight Singing
Development of sight singing skills for musical theater majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.
Music Theory and Composition

16MTHC106  Sight Singing  Development of sight singing skills for musical theater majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MTHC107  Sight Singing  Development of sight singing skills for musical theater majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MTHC109  Undergraduate Theory Review  Review of material covered in first and second quarters of Theory I. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16MTHC110  Composition Concentration  See 16MTHC100. For music students who are not composition majors. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MTHC111  Theory I  Scales, intervals, key relations, consonance and dissonance, root-position triads, melodic diminutions, the harmonic series, aspects of rhythm and meter. Music majors only. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC112  Theory I  Species counterpoint (cantus firmus, first and second species), sixth chords, harmonic progression, seventh chords, part writing, composing a soprano, harmonizing a soprano, music analysis. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC113  Theory I  Third, fourth, and fifth species, modulation, suspensions, diatonic linear chords, musical form, more part writing and musical analysis. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC115  Musicianship I  Ear training, sight singing, and keyboard harmony. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC116  Musicianship I  Ear training, sight singing, and keyboard harmony. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC117  Musicianship I  Ear training, sight singing, and keyboard harmony. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC171  Introduction to Music Technology  Develops necessary computer skills for using various music software package. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16MTHC200  Composition Major Study  Continuation of first year composition with emphasis on larger forms and more freedom of content. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16MTHC210  Composition Concentration  Second-year study for music students who are not composition majors. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MTHC211  Theory II  Chromatic harmony (part writing and analysis); common practice period form. Emphasis on Schenkerian procedures. Integrated sight reading.
Music Theory and Composition

16MTHC300
Composition Major Study
Continuation of second-year composition lessons. Permission of instructor. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16MTHC310
Composition Concentration
Third-year study for music students who are not composition majors. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MTHC311
Theory III
Style, vocabulary, and musical procedures of 20th- and 21st-century music: writing, analysis, aural skills, an model composition. Prereq: 16MTHC213, 16MTHC217. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16MTHC312
Theory III
Style, vocabulary, and musical procedures of 20th- and 21st-century music: writing, analysis, aural skills and model composition. Prereq: 16MTHC311. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16MTHC351
Orchestration
Study of orchestral and band instruments, range, timbre, scoring for small and large ensembles. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC352
Orchestration
Study of orchestral and band instruments, range, timbre, scoring for small and large ensembles. Prereq: 16MTHC351. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16MTHC353
Orchestration
Orchestration for standard chamber ensembles and for unique or uncommonly instrumented ensembles. Prereq: 16MTHC351. BoK: NA. Credit Level: U. Credit Hrs: 2.00

16MTHC400
Composition Major Study
Continuation of third-year composition lessons. Permission of instructor. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16MTHC410
Composition Concentration
Fourth-year study for music students who are not composition majors. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MTHC480
Senior Research
Individual analysis and theoretical research. BoK: FA, QR. Credit Level: U. Credit Hrs: 1.00-3.00

16MTHC485
Symposium in Composition
Weekly seminar for all undergraduate composition majors to discuss and review important trends and events in contemporary music. Occasional guest lecturers. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16MTHC500
Composition Major Study
Additional study for undergraduate composition majors who have completed the basic degree requirements; offered for undergraduate and graduate composition majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16MTHC501
Sixteenth Century Counterpoint
Review of species counterpoint, historical perspective, modal usage, analysis of plainsong melodies and two-part modal counterpoint employing historically appropriate technical features. BoK: FA, HP.

16MTHC502
Sixteenth Century Counterpoint
Continuation of imitative writing in three voices, study of text setting, analysis of representative works. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00

16MTHC505
Eighteenth Century Counterpoint
Analysis of melodic lines, study of stylistic considerations, composition and analysis of two-voice inventions. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00

16MTHC506
Eighteenth Century Counterpoint
This is the second quarter of a two-quarter sequence. The term will be devoted to the study and composition of small- to medium-size compositions in two and three voices, including solo (i.e., single-line) instrument movements, minuets (binary dance forms), sonatas for solo instrument and continuo, canons, inventions, rounds and catches, passacaglias, trio sonatas and fugues. BoK: FA, HP. Credit Level: U, G. Credit Hrs: 3.00

16MTHC510
Composition Concentration
Additional study in composition for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level composition students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC511
Advanced Orchestration
Analysis of the orchestral techniques of Ravel, Bartok, Schoenberg, Stravinsky, and other significant composers; practical work in contemporary orchestration. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC512
Advanced Orchestration

16MTHC515
Figured Bass Playing and Improvisation
Study and practice of figured bass. Historical study of figured bass from various treatises of the period. Improvisation based on figured bass. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 2.00

16MTHC516
Figured Bass Playing and Improvisation
Study and practice of figured bass. Historical study of figured bass from various treatises of the period. Improvisation based on figured bass. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 2.00

16MTHC517
Figured Bass Playing and Improvisation
Study and practice of figured bass. Historical study of figured bass from various treatises of the period. Improvisation based on figured bass. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 2.00

16MTHC521
Score Reading
Principles of keyboard sightreading, study at all seven clefs, score reading of two-voice literature. Some piano proficiency necessary. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 1.00

16MTHC522
Score Reading
Principles of transposition, score reading of three-voice literature. BoK: FA, QR. Credit Level: U, G. Credit Hrs: 1.00

H=University Honors course.
Music Theory and Composition

16MTHC523
Score Reading
Score reading of chamber, choral, and orchestral scores. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 1.00

16MTHC530
Composition Elective
Nonrequired private study in composition; requires permission of the department. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16MTHC560
Independent Study
Permission of Instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16MTHC570
MIDI for Musicians
Musical Instrument Digital Interface and music technology applications. Emphasis on synthesizers, drum machines, computers, and digital technology as they relate to live performance and the recording studio. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC571
Introduction to Electronic Music
An introduction to the techniques, concepts, and historical perspective of composing, performing, and listening to electro-acoustic music. Topics covered include: acoustics, psychoacoustics, MIDI, computer music, and live electronic music. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC572
Introduction to Electronic Music
An introduction to the techniques, concepts, and historical perspective of composing, performing, and listening to electro-acoustic music. Topics covered include: acoustics, psychoacoustics, MIDI, computer music, and live electronic music. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC573
Introduction to Electronic Music
An introduction to the techniques, concepts, and historical perspective of composing, performing, and listening to electro-acoustic music. Topics covered include: acoustics, psychoacoustics, MIDI, computer music, and live electronic music. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC575
Computer Music Composition

16MTHC576
Computer Music Composition

16MTHC577
Computer Music Composition

Music Theory and Composition

16MTHC581
Live Electronic Music
Composition and performance of live electronic music emphasizing real-time processing of acoustic instrumental performance. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16MTHC582
Computer Music Programming
Explores programming for composition including designing sound by instrument building in C and algorithmic processes such as fractals. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC583
Advanced Computer Music Programming
Object-oriented programming for music composition including algorithms and sound design. BoK: FA., QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC584
Timbre Studies
Investigates recent music and research concerning timbre in acoustic and electronic music. Perm of Instructor. BoK: FA. QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC585
Sound and Animation Composition
Composition of multimedia art, exploring relationships between visual and aural components with computer music and animation. Perm of Instructor. BoK: FA. QR. Credit Level: U, G. Credit Hrs: 3.00

16MTHC589
Music and Technology Seminar
Topics in computer and electroacoustic music including composition issues, performance strategies, programming, technique, analysis, and informal sessions for playing works in progress. Prereq: 16MTHC573. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

16MTHC590
Intermedia
Creation of multimedia works involving music and visual arts, digital and acoustic, fixed and web based. Team taught by CCM composition faculty and DAAP faculty. Prereq: 16MTHC573. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MTHC592
Intermedia
Continuation of 16MTHC591. Prereq: 16MTHC591. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MTHC593
Intermedia
Continuation of 16MTHC591, 592. Prereq: 16MTHC592. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MTHC600
Composition Practicum
The objective of this course is to develop skills in composition, emphasizing (but not limited to) instrumentation and orchestration, notation, and preparation of performance materials. To this end, students complete several composition projects throughout the quarter, according to a prearranged schedule. These projects are read and/or performed at class meetings by a participating ensemble, providing an opportunity to engage in an active dialogue with performers, peers, and faculty, that will lead the composition student in the process of refining his/her work. Pertinent analysis projects or in-class presentations may be part of the course, according to the goals of the instructor. No fixed bibliography is relevant. Scores and recordings may be assigned at the instructor’s discretion. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-3.00

16MTHC605
Intermediate Aural Training
A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credit Hours</th>
<th>BoK</th>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16MTHC605</td>
<td>Intermediate Aural Training</td>
<td>Class size limited to 5</td>
<td>2.00</td>
<td>FA, QR</td>
<td>U, G</td>
<td>A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural discrimination.</td>
</tr>
<tr>
<td>16MTHC606</td>
<td>Intermediate Aural Training</td>
<td>Class size limited to 5</td>
<td>2.00</td>
<td>FA, QR</td>
<td>U, G</td>
<td>A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural discrimination.</td>
</tr>
<tr>
<td>16MTHC607</td>
<td>Intermediate Aural Training</td>
<td>Class size limited to 5</td>
<td>2.00</td>
<td>FA, QR</td>
<td>U, G</td>
<td>A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural discrimination.</td>
</tr>
<tr>
<td>16MTHC611</td>
<td>Advanced Topics in Post-1890 Analysis</td>
<td>Analysis of seminar works or sets of works composed after 1890</td>
<td>3.00</td>
<td>NA</td>
<td>U, G</td>
<td>Realization of figured bass, attention to national styles and idioms, ensemble voicing.</td>
</tr>
<tr>
<td>16MTHC620</td>
<td>Species Counterpoint</td>
<td>Systematic study of the principles governing an effective cantus firmus and the five species of counterpoint in two voices.</td>
<td>2.00</td>
<td>NA</td>
<td>U, G</td>
<td>A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural discrimination.</td>
</tr>
<tr>
<td>16MTHC631</td>
<td>Continuo Playing</td>
<td></td>
<td>2.00</td>
<td>NA</td>
<td>U, G</td>
<td>Systematic study of the principles governing an effective cantus firmus and the five species of counterpoint in two voices.</td>
</tr>
<tr>
<td>16MTHC632</td>
<td>Continuo Playing</td>
<td>Continuation of 16MTHC631</td>
<td>2.00</td>
<td>NA</td>
<td>U, G</td>
<td>Continuation of 16MTHC631.</td>
</tr>
<tr>
<td>16MTHC633</td>
<td>Continuo Playing</td>
<td>Continuation of 16MTHC631, 632</td>
<td>2.00</td>
<td>NA</td>
<td>U, G</td>
<td>Continuation of 16MTHC631, 632.</td>
</tr>
<tr>
<td>16MTHC650</td>
<td>Rhythm and Eurhythmics</td>
<td></td>
<td>2.00</td>
<td>NA</td>
<td>U, G</td>
<td>A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural discrimination.</td>
</tr>
<tr>
<td>16MTHC651</td>
<td>Intermediate Rhythm and Eurhythmics</td>
<td></td>
<td>2.00</td>
<td>NA</td>
<td>U, G</td>
<td>A comprehensive approach designed to review, reinforce, and expand aural capabilities and skills, and to develop a fine sense of aural discrimination.</td>
</tr>
<tr>
<td>16MTHC660</td>
<td>Special Topics</td>
<td>Topics established every quarter by Department/Division.</td>
<td>0.00-6.00</td>
<td>NA</td>
<td>U, G</td>
<td>Topics established every quarter by Department/Division.</td>
</tr>
<tr>
<td>16MTHC670</td>
<td>Proseminar in Music Theory</td>
<td></td>
<td>3.00</td>
<td>NA</td>
<td>U, G</td>
<td>Introduction to professional writing in the field of music theory through critical reading of current and classic literature. Analysis of theoretical issues and their methods of presentation. Exercise in writing abstracts, proposals, responses, and complete papers. Area majors.</td>
</tr>
</tbody>
</table>

**BoK (Breadth of Knowledge) Coding:**
- DC: Diversity & Culture
- EC: English composition
- FA: Fine Arts
- HP: Historical Perspectives
- H: University Honors course
- HU: Humanities
- LT: Literature
- NS: Natural Sciences
- QR: Quantitative Reasoning
- SE: Social & Ethical Issues
- SS: Social Sciences
- LT: Literature
- NS: Natural Sciences
- QR: Quantitative Reasoning
- SE: Social & Ethical Issues
- SS: Social Sciences
Music Theory and Composition

16MTHC816
Set Theory I
A systematic approach to the concepts of set theory and their application to atonal and twelve-tone music. Prepares students to use the concepts and skills for analysis and/or composition. Credit Level: G. Credit Hrs: 3.00

16MTHC817
Set Theory II
Advanced theoretical notions (e.g., pitch-class set symmetry and segmental invariance in the twelve-tone system); emphasis on analysis of atonal and twelve-tone music; relevance of set-theoretical concepts to speculative music-theoretical research; readings of classical works in the set-theoretical literature. Prereq: 16MTHC816. Credit Level: G. Credit Hrs: 3.00

16MTHC818
Schenkerian Analysis I
Introduction to Schenkerian-analytical concepts and graphic notation. An understanding of the organic nature of the underlying theory and its relation to both analysis and aural experiences developed gradually through extensive analytical examples and exercises. Credit Level: G. Credit Hrs: 3.00

16MTHC819
Schenkerian Analysis II
See 16-700-818. Analytical examples and exercises consist primarily of complete tonal works of small to moderate dimension. Prereq: 16MTHC818. Credit Level: G. Credit Hrs: 3.00

16MTHC821
History of Theory: Antiquity and Early Ages
Facts, concepts, procedures of music theory from Pythagoras to mid-15th century. Interpretation of seminal texts. Credit Level: G. Credit Hrs: 3.00

16MTHC822
History of Theory: Renaissance and Baroque
Facts, concepts, procedures of music theory from mid-15th century to 1750. Interpretation of seminal texts. Credit Level: G. Credit Hrs: 3.00

16MTHC823
History of Theory: Common Practice and Modern Eras
Facts, concepts, and procedures of music theory from 1750 to the present. Interpretation of seminal texts. Credit Level: G. Credit Hrs: 3.00

16MTHC870
Music Theory Colloquium
Discussion of current theoretical literature; visiting lecture series of professional theorists. Area majors Credit Level: G. Credit Hrs: 1.00

16MTHC880
Readings in Music Theory and Analysis
Close readings of seminal texts and cursory erudition of others under the supervision of the music theory faculty. Credit Level: G. Credit Hrs: 3.00

16MTHC881
Seminar in Theory
A special topics course dealing with theoretical issues of current interest. Credit Level: G. Credit Hrs: 4.00

16MTHC882
Seminar in Analysis
In-depth analysis of selected works. Credit Level: G. Credit Hrs: 3.00

16MTHC885
Symposium in Composition
Weekly seminar for all graduate composition majors to discuss and review important trends and events in contemporary music. Occasional guest lecturers. Credit Level: G. Credit Hrs: 0.00-1.00

Music Theory and Composition

16MTHC890
Thesis -- M.M. Theory
Research and preparation of the final written project for the MM degree in music theory; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-9.00

16MTHC899
Master's Candidacy
Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16MTHC900
Composition Major Study
Private lessons at the doctoral level for composition majors. Credit Level: G. Credit Hrs: 4.00

16MTHC910
Composition Concentration
Doctoral level study for students accepted for a cognate in composition. Credit Level: G. Credit Hrs: 2.00

16MTHC980
Research in Theory
Individual analysis and theoretical research. Permission of instructor. Credit Level: G. Credit Hrs: 1.00-3.00

16MTHC990
Dissertation
Research and preparation of the final written project for the DMA degree in composition or the Ph.D. degree in music theory; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Music Education

16MUED101
Undergraduate Music Education Colloquium
Weekly forum intended to orient new music education students to the many dimensions of the music education program ranging from the various requirements of the program to professional opportunities outside of prescribed coursework as well as subsequent to program completion. Area majors only. BoK: NA. Credit Level: U. Credit Hrs: 0.00-1.00

16MUED102
Undergraduate Music Education Colloquium
Weekly forum intended to orient new music education students to the many dimensions of the music education program ranging from the various requirements of the program to professional opportunities outside of prescribed coursework as well as subsequent to program completion. Area majors only. BoK: NA. Credit Level: U. Credit Hrs: 0.00-1.00

16MUED103
Undergraduate Music Education Colloquium
Weekly forum intended to orient new music education students to the many dimensions of the music education program ranging from the various requirements of the program to professional opportunities outside of prescribed coursework as well as subsequent to program completion. BoK: NA. Credit Level: U. Credit Hrs: 0.00-1.00

16MUED241
Introduction to Music Education
Objectives and structure of a balanced program of music education; principles of music learning; directed observations of music classes in local schools; readings and discussions of current issues in music education. BoK: FA., DC. Credit Level: U. Credit Hrs: 2.00

16MUED242
Introduction to Music Teaching
General introduction to techniques, materials, and musical skills needed in music teaching pre-K through high school. Attention is given to integration across the curriculum including the teaching and learning of reading and phonics. Field study and practice conducted in local preschool, elementary school, and high school. BoK: FA., DC. Credit
Music Education

16MUED242
Introduction to Music Teaching
Level: U. Credit Hrs: 2.00

16MUED243
Voice Class I
Introductory course in vocal technique, designed particularly for music education students; problems of the unchanged, changing, and mature voice. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED244
Voice Class II
Continuation of Voice Class I. Development and application of methods, materials, and vocal techniques for use in K-12 music programs. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED245
String Class I
Beginning string class techniques on all orchestral string instruments. Maintenance of instruments, evaluation of methods and materials, elementary orchestral organization, micro-teaching. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED246
String Class II
Intermediate string class techniques on all orchestral string instruments. Maintenance of instruments, evaluation of methods and materials, elementary orchestral organization, micro teaching, and score marking. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED251
Music in Childhood Education
Rudiments of music, ear-training, sight-reading, and singing. Methods and principles of elementary school music, selection and study of materials for listening, rhythmic activities, and singing. For College of Education students only. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16MUED271
Instrumental Teaching Lab
In addition to performance experience in band and orchestral playing utilizing functional performance skills developed in instrumental technique classes, the course includes the use of a broad repertoire applicable in elementary, middle, and high school instruction for building of curricular lessons and to develop skills in management and presentation. BoK: FA., SE. Credit Level: U. Credit Hrs: 3.00

16MUED272
Brass Class
Tone production, playing, and teaching techniques of all brass instruments, as well as care of instruments and study of materials. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED273
Woodwind Class
Instruction on all woodwind instruments; techniques, materials, care of the instruments, basic instrument repair, and curriculum planning. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED274
Percussion Class
Fundamental techniques on the most frequently used percussion instruments, both of definite and of indefinite pitch; conventions of notation, care of instruments, the teaching of percussion. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16MUED341
Elementary General Music Methods I
Objectives, methods, and materials for elementary school with particular emphasis on guided observation and teaching experiences at a local elementary (pre-K-6) school. Attention is given to integration across the curriculum including the teaching and learning of reading and phonics. Elaboration upon learning theory (e.g. Piaget Bruner) introduced in 16MUED242. Investigation of Orff-Schulwerk, Kodaly, and Dalcroze eurhythmics in view of the total span of child development.

H=University Honors course.
Music Education

16MUED452
Student Teaching
teaching quarter. Objectives of the seminar are to coordinate in-school assignments, monitor student teaching activities, and complete certification, graduation, and placement tasks. BoK: FA., SE. Credit Level: U. Credit Hrs: 6.00

16MUED461
Technology for Music Teaching
Introduction to software packages used by music teachers; notation programs for arranging, databasing for organizing inventory and personnel, computer-assisted instruction for music fundamentals and drill-and-practice software, webpage design for marketing and communication, sequencing instruction, grant-writing exercises to help meet funding needs. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16MUED470
Urban Music Education
Focus on issues affecting music education programs in urban areas. Approaches to managing a music program more effectively through the use of creatively designed methods and pedagogical techniques will be shared as well as discussions about cultural differences that make inner city teaching uniquely challenging. Perm of Instructor. BoK: FA, SE. Credit Level: U. Credit Hrs: 3.00

16MUED481
Contemporary Topics I
Two five-week modules with the first exploring the current K-12 educational landscape and the second focused on learning theories and their application to music education. Perm of Instructor. BoK: FA, SE. Credit Level: U. Credit Hrs: 2.00

16MUED482
Contemporary Topics II
Two five-week modules with the first on curriculum design and the second on assessment and accountability. Perm of Instructor. BoK: FA, SE. Credit Level: U. Credit Hrs: 2.00

16MUED500
Music Teaching Internship
Individually arranged and faculty supervised teaching practice in area schools and community music organizations. Perm of Department. BoK: FA, SE. Credit Level: U, G. Credit Hrs: 0.00-6.00

16MUED521
Literature for School Bands
Review band literature for all grade levels, discuss performance concerns, address specific rehearsal techniques, establish musical concepts for each selection, develop criteria for quality literature, develop comprehensive curriculum units for classroom use. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MUED560
Independent Study in Music Education
Special project in music teaching to be approved in advance by the Music Education faculty. Variable credit. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16MUED571
Advanced Instrumental Music Education Methods
Develop skills for teaching/coaching instrumentalists at all levels. Become familiar with specific playing and teaching techniques on an instrument of choice. Practice error detection and score study techniques. Become familiar with best practices in instrumental music education, and learn about alternative instrumental music education ensembles. Design a 6-week curriculum in instrumental music for the implementation of conceptual teaching. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

16MUED575
Music and the Humanities
A general survey of the fine arts from Hellenic Greece to present day. Emphasis on music and the visual arts. Stress is on relationships among the arts and the convergence/divergence evident period to period. Teaching strategies are discussed. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

16MUED581
Marching Band Techniques
Learn basic skills in marching band drill design and teaching techniques for working with marching bands. Design a suitable marching program for a school-based ensemble using computer-based charting application. Plan for budgetary, operational, parental and administrative concerns associated with a marching band program. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16MUED601
Orff Teacher Certification: Level I
Basic philosophy and pedagogy of the Orff Schulwerk process. Movement, body percussion, speech, rhythmic and melodic ensembles, voice, and soprano recorder are combined to develop the capabilities of class members and to present materials appropriate for the child. Arranging and composition for the Orff instrumentalum are emphasized, along with lesson planning and curriculum development at the elementary level. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 3.00

16MUED602
Orff Teacher Certification: Level II
Continuation of 16MTHC601. Materials and activities appropriate to upper elementary, middle, and junior high school levels, designed to further the personal growth of participants. Alto recorder and expansion of soprano recorder skills. Prereq: 16MUED601. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 3.00

16MUED603
Orff Teacher Certification: Level III
Continuation of 16MTHC602. Materials, techniques, and activities for the advanced Orff-Schulwerk student. Emphasis on student's ability to create, orchestrate, and perform compositions using the entire Orff instrumentalum. Continuation of advanced soprano and alto recorder techniques; study on tenor-bass and soprano recorders. Prereq: 16MUED602. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 3.00

16MUED630
Special Topics in Music Education
Additional courses related to special areas of study offered on an irregular schedule, including the following: Developments and Trends in Elementary Music Education, Developments and Trends in Instrumental Music Education, Developments and Trends in Junior-Senior High School General Music, Developments and Trends in Secondary Vocal Music Education, Marching Band Techniques, Music for the Pre-School Child, Related Arts in the Classroom, Seminar in Music Curriculum. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16MUED660
Special Topics
Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16MUED751
Music in Childhood Education
Rudiments of music, ear-training, sight-reading, and singing. Methods and principles of elementary school music, selection and study of materials for listening, rhythmic activities, and singing. For College of Education students only. Credit Level: G. Credit Hrs: 3.00

16MUED851
Supervision of Music Teaching
Develop systematic observation skills for the music classroom or ensemble rehearsal, become familiar with observational software and traditional forms, learn a variety of strategies for communicating observation results to preservice and inservice teachers, practice self-observation of teaching behaviors along with strategies for improvement. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Music Education

16MUED861
Technology for Music Teaching
Introduction to software packages used by music teachers; notation programs for arranging, databasing for organizing inventory and personnel, computer-assisted instruction for music fundamentals and drill-and-practice software, webpage design for marketing and communication, sequencing instruction, grant-writing exercises to help meet funding needs. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16MUED870
Urban Music Education
Focus on issues affecting music education programs in urban areas. Approaches to managing a music program more effectively through the use of creatively designed methods and pedagogical techniques will be shared as well as discussions about cultural differences that make inner city teaching uniquely challenging. Credit Level: G. Credit Hrs: 3.00

16MUED871
History and Philosophy of Music Education
Historical roots and philosophical foundations of music education in the United States; European background and cultural influences; current philosophical issues in music education. Credit Level: G. Credit Hrs: 3.00

16MUED872
Psychological Foundations of Music Education
Psychological principles of psycho-motor learning and of aural and nonverbal perception; learning theories and their applications to the teaching-learning process in music. Credit Level: G. Credit Hrs: 3.00

16MUED879
Introduction to Research in Music Education
Research techniques appropriate to research in music education; principles of research design; organization of the research report; critical examination of representative research studies in music education. Emphasis on developing knowledgeable and discriminating readers and interpreters of completed research. Credit Level: G. Credit Hrs: 3.00

16MUED881
Contemporary Topics I
Two five-week modules with the first exploring the current K-12 educational landscape and the second focused on learning theories and their application to music education. Credit Level: G. Credit Hrs: 2.00

16MUED882
Contemporary Topics II
Two five-week modules with the first on curriculum design and the second on assessment and accountability. Credit Level: G. Credit Hrs: 2.00

16MUED890
Master’s Project in Music Education
Intensive study and preparation of the final major project for the Master of Music degree in music education. Credit Level: G. Credit Hrs: 3.00

16MUED899
Master’s Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16MUED911
Graduate Colloquium in Music Education
A forum for the investigation of issues and ideas as they relate to graduate study in music education: readings, discussion, guest presentations. Credit Level: G. Credit Hrs: 1.00

16MUED960
Independent Research in Music Education
In-depth study of a specialized research topic in music education, selected by the student in consultation with a member of the faculty. Credit Level: G. Credit Hrs: 1.00-3.00

Music Education

16MUED976
Seminar in Measurement and Evaluation
Roles and processes of evaluation in the music setting. Test and nontest means of assessment. Creating tests and instructional evaluation plans. Credit Level: G. Credit Hrs: 3.00

16MUED980
DME Advanced Research Seminar
Required seminar for all students enrolled in the DME program. Each student's research work will depend upon his/her stage in the completion of the degree. Credit Level: G. Credit Hrs: 3.00

16MUED990
Dissertation Music Education
Research and preparation of the final written project for the DME degree; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Musical Theater

16MUST140
Musical Theater Vocal Coaching
Study and performance of selections from the musical theater repertoire. Examination of musical theater styles. For Musical Theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST175
Freshman Showcase
Performance experience for freshman in musical theater. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16MUST201
Musical Theater Performance Group
Building performance skills and repertoire, through rehearsal and performance of selections from the standard musical theater repertoire, under the guidance of a director, conductor, and choreographer. Musical Theater Majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST202
Musical Theater Performance Group
Building performance skills and repertoire, through rehearsal and performance of selections from the standard musical theater repertoire, under the guidance of a director, conductor, and choreographer. Musical Theater Majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST221
Pilates Mat Class - Beginning
A beginning level exercise class in the Pilates Method of Body Conditioning in mat work. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16MUST240
Musical Theater Vocal Coaching
Study and performance of selections from the musical theater repertoire. Examination of musical theater styles. For Musical Theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST300
Audition Techniques
Selection and preparation of audition materials in various styles, resume preparation, the job market, etc. Materials range from Shakespeare to contemporary drama and musical theater. Musical Theater Majors only. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16MUST301
Advanced Audition Techniques
Continuation of Audition Techniques with emphasis on style, musical theater auditions, and cold readings. BoK: FA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Musical Theater

16MUST310 Musical Theater History and Literature
Survey of the historical evolution of the musical theater from its beginnings in Colonial America to the present. Part One: “The Black Crook” to Rodgers and Hart. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

16MUST311 Musical Theater History and Literature
See 16MUST310. Part Two: Rodgers and Hammerstein to Stephen Sondheim. Prereq: 16MUST310. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

16MUST340 Musical Theater Vocal Coaching
For Musical Theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST440 Musical Theater Vocal Coaching
For Musical Theater majors only. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16MUST521 Musical Theater Dance: Beginning Tap I
Rudiments of tap dancing. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST522 Musical Theater Dance: Beginning Tap II
Continuation of instruction in beginning tap. Prereq: 16MUST521. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST523 Musical Theater Dance: Intermediate Tap
Instruction in tap dancing at the intermediate level. Prereq: 16MUST522. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST524 Musical Theater Dance: Advanced Tap
Instruction in tap dancing at the advanced level. Prereq: 16MUST523. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST525 Choreography for Musical Theater
Develop understanding of choreography for musical theater through the study of prominent Broadway choreographers and their styles. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16MUST560 Independent Study
Prereq.: Perm. of inst. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-6.00

16MUST575 New York Showcase
Creation of a showcase performed for casting agents in New York. BoK: FA., DC. Credit Level: U, G. Credit Hrs: 3.00

16MUST600 Musical Theater Orchestra
By audition or assignment. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16MUST630 Special Topics in Musical Theater
By perm. of division. By audition or assignment. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16MUST660 Rehearsal and Performance
Rehearsal and public performance of a mainstage or workshop production drawn from the standard musical theater repertoire. Assigned by divisional faculty following auditions. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

Musical Theater

16MUST800 Audition Techniques
Selection and preparation of audition materials in various styles; resume preparation and the job market. Credit Level: G. Credit Hrs: 3.00

16MUST801 Advanced Audition Techniques
Continuation of Audition Techniques with emphasis on style, musical theater auditions and cold readings. Prereq: 16MUST800. Credit Level: G. Credit Hrs: 3.00

16MUST805 Characterization and Repertoire
Study of major roles from the standard musical theater repertoire from the viewpoints of vocal demands, physical characterization and creative acting. Credit Level: G. Credit Hrs: 2.00

16MUST807 Cabaret Techniques
Study of techniques used in one-person performances in intimate spaces. Creation of an “act” suited to cabaret performances. Credit Level: G. Credit Hrs: 3.00

16MUST810 Musical Theater History and Literature
Survey of the historical evolution of the musical theater from its beginnings in Colonial America to the present. Part One: “The Black Crook” to Rodgers and Hart. Credit Level: G. Credit Hrs: 3.00

16MUST811 Musical Theater History and Literature
Survey of the historical evolution of the musical theater from its beginnings in Colonial America to the present. Part Two: Rodgers and Hammerstein to Stephen Sondheim. Prereq: 16MUST810. Credit Level: G. Credit Hrs: 3.00

16MUST875 Graduate Workshop
Intensive acting instruction for graduate students in musical theater. Credit Level: G. Credit Hrs: 3.00

Oboe

16OBOE100 Oboe Major Study
Principles of basic musicianship. Technical requirements: proper command of posture, breath support, embouchure, tongue position and movement, resonance, natural vibrato, jaw techniques for dynamics, detache, register change, and phrasing. Basic cane preparation and reed design and construction. Scales, several compositions including a Baroque work and one of contrasting style. Attendance at weekly oboe seminar required. English Horn Sem. by perm. only. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16OBOE110 Oboe Concentration
First-year study for oboe students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16OBOE120 Oboe Secondary
First-year secondary study in oboe as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16OBOE200 Oboe Major Study
Continuation of development of musicianship and techniques, reed-making, Selmer studies, scales and thirds, sonatas such as Saint-Saens, Hindemith, a Baroque concerto, major orchestral solos. Attendance at weekly oboe seminar and chamber music ensemble required: English Horn recital suggested; English Horn Sem. by perm. only. BoK: FA. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
Oboe

16OBOE210
Oboe Concentration
Second-year study for oboe students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16OBOE220
Oboe Secondary
Second-year secondary study in oboe as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16OBOE300
Oboe Major Study
Continuation of musical and technical development, reed-making, Selner studies, scales and thirds, compositions of the Classical and Romantic periods, major orchestral solos. Attendance at weekly oboe seminar and chamber music ensemble required; half to full informal oboe recital suggested; English Horn Sem. by perm. only. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16OBOE310
Oboe Concentration
Third-year study for oboe students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16OBOE320
Oboe Secondary
Third-year secondary study in oboe as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16OBOE400
Oboe Major Study
Continuation of musical and technical development, reed-making, etudes, scales and thirds, addition of works by contemporary composers, larger concerti, major orchestral solos. Preparation of a recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16OBOE410
Oboe Concentration
Fourth-year study for oboe students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16OBOE420
Oboe Secondary
Fourth-year secondary study in oboe as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16OBOE500
Oboe Major
Additional study for undergraduate oboe majors who have completed the basic degree requirements; offered for undergraduate and graduate oboe majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16OBOE510
Oboe Concentration
Additional study in oboe for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration-level oboe students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16OBOE530
Oboe Elective
Nonrequired private study in oboe; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16OBOE560
Independent Study
Projects such as the study of the letters of the Mozart family, cadenza writing, original ornamentation of Baroque works, etc. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

Oboe

16OBOE630
Special Topics
Topics established by the area faculty on an as needed basis. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16OBOE680
Oboe Master Class
A weekly seminar in oboe performance covering oboe and reed making techniques, orchestral excerpts, specific editions of major works, audition techniques, literature and pedagogy. Frequent guest lecturers. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16OBOE800
Oboe Graduate Major Study
Continuation of musical and technical development, reed-making, etudes, scales and thirds, compositions ranging from Baroque to contemporary. Preparation of required recital programs and orchestral audition material. Credit Level: G. Credit Hrs: 4.00

16OBOE810
Oboe Concentration
Master's level study for students accepted for a cognate in oboe performance. Credit Level: G. Credit Hrs: 2.00

16OBOE820
Oboe Secondary
Secondary study in oboe for master's degree students. Credit Level: G. Credit Hrs: 1.00

16OBOE850
Artist Diploma in Oboe
All preprations necessary leading to a career in performance. Credit Level: G. Credit Hrs: 6.00

16OBOE855
Artist Diploma Recital
Public performance by an artist diploma student in oboe of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16OBOE880
Master Recital
Public performance by a master's degree student in oboe of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16OBOE895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16OBOE899
Master's Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16OBOE900
Oboe Doctoral Major Study
All preparations necessary leading to a career combining performance and college/university teaching. Credit Level: G. Credit Hrs: 4.00

16OBOE910
Oboe Concentration
Doctoral level study for students accepted for a cognate in oboe performance. Credit Level: G. Credit Hrs: 2.00

16OBOE920
Oboe Secondary
Secondary study in oboe for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16OBOE930
Oboe Elective
Nonrequired private study in oboe for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00
Oboe

16OBOE950
Artist Diploma in Oboe
All preparations necessary leading to a career in performance. Credit Level: G. Credit Hrs: 6.00

16OBOE960
Oboe Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16OBOE970
Doctoral Recital
Public performance by a doctoral student in oboe of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16OBOE990
Lecture Recital
Combined public lecture and performance of a selected topic in the oboe repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16DMOBE990
DMA Document
Research and preparation of the final written project for the DMA degree in oboe; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Opera

16OPRA560
Independent Study
In-depth study of a topic related to opera, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-6.00

16OPRA585
Lucca: Techniques in Opera Direction
Development and education of the opera stage director. BoK: FA. Credit Level: U, G. Credit Hrs: 7.00

16OPRA600
Opera Orchestra
Participation in the opera orchestra; by audition or assignment. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16OPRA620
Lucca: Techniques in Opera Coaching
Teaching pianists and accompanists skills specific to opera coaching and opera rehearsal playing. Study of recitative, bel canto style, score reduction, and general repertoire, focusing on Italian opera. BoK: FA. Credit Level: U, G. Credit Hrs: 7.00

16OPRA630
Special Topics in Opera
Offering of selected topics on an as needed basis. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16OPRA660
Special Topics
Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16OPRA673
Opera Workshop
Basic techniques of stage movement, operatic style and related aspects of opera production. Comprehensive musical and dramatic study of operatic scenes in classroom and public performance. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16OPRA675
Opera Studio
Advanced techniques of characterization, ensemble, and all other aspects of opera production. Emphasis on practical experience in public performances. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16OPRA677
Opera Theater Coaching
Musical preparation of the CCM mainstage productions. Enrollment by casting. Variable 0-3 ug. or gr., depending on the size of the role to be performed. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16OPRA678
Opera Theater Production
Rehearsal and performance of operas in full productions with orchestra. Enrollment by casting audition. Variable credit depending upon length of role. Prereq: 16OPRA677. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16OPRA750
Professional Development
Student presentation of audition repertoire/ playing in mock auditions for constructive criticism in the areas of presentation, style, dramatic effectiveness, language skills, and other audition techniques. Autumn Quarter only. Credit Level: G. Credit Hrs: 3.00

16OPRA751
Professional Development
Focus on professional tools, legalities, and employment opportunities in the USA and abroad, along with other relevant information for the individual performer. Credit Level: G. Credit Hrs: 3.00

16OPRA780
Opera Characterization: Principles and Techniques
Supervised demonstrations and critical analyses of the fundamental principles and techniques of operatic characterization. Credit Level: G. Credit Hrs: 3.00

16OPRA781
Seminar in Opera Stage Directing
Analytical and communicative techniques of the opera stage director, as illustrated by labwork in class, and opportunity to assist in Opera Workshop, Studio and Theater project. Credit Level: G. Credit Hrs: 3.00

16OPRA782
Seminar in Opera Directing Lab
Work as instructor or director with undergraduate performance projects or special topics project using materials and information gained in Seminar in Opera Stage Directing. Prereq: 16OPRA781. Credit Level: G. Credit Hrs: 2.00

16OPRA790
Opera Laboratory Ensemble
Course will focus on advanced synthesis of singing, acting and movement skills (for singers) and directing and coaching (for directors and coaches) through preparation and performance of scenes from the standard operatic repertoire, contemporary repertoire and straight theater. Prereq: 16OPRA673, 16OPRA780. Credit Level: G. Credit Hrs: 2.00

16OPRA791
Opera Laboratory Ensemble
Course will focus on advanced synthesis of singing, acting and movement skills (for singers) and directing and coaching (for directors and coaches) through preparation and performance of scenes from the standard operatic repertoire, contemporary repertoire and straight theater. Prereq: 16OPRA673, 16OPRA780. Credit Level: G. Credit Hrs: 2.00

16OPRA792
Opera Laboratory Ensemble
Course will focus on advanced synthesis of singing, acting and movement skills (for singers) and directing and coaching (for directors and coaches) through preparation and performance of scenes from the standard operatic repertoire, contemporary repertoire and straight theater. Prereq: 16OPRA673, 16OPRA780. Credit Level: G. Credit Hrs: 2.00

H=University Honors course.
**Organ**

16ORGN200  
Organ Major Study  
Pachelbel, Bach, and Brahms; easier pieces of Franck, Hindemith, Messiaen, etc. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16ORGN210  
Organ Concentration  
Second-year study for organ students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16ORGN220  
Organ Secondary  
Second-year secondary study in organ as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16ORGN300  
Organ Major Study  
Technical requirements: continuation of above, sight-reading and transposition. Baroque compositions equivalent in difficulty to Buxtehude -- Prelude and Fugue in G Minor, a sonata by Mendelssohn, a suite by Langlais or comparable contemporary compositions. Preparation of junior recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16ORGN310  
Organ Concentration  
Third-year study for organ students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16ORGN320  
Organ Secondary  
Third-year secondary study in organ as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16ORGN400  
Organ Major Study  
Technical requirements: continuation of above. Preparation of senior recital. Major works by J.S.Bach and his predecessors, 19th century works; Franck -- Chorales; contemporary composition of advanced difficulty. For the final examination the student will prepare a given piece in fifteen days without the aid of the teacher. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16ORGN410  
Organ Concentration  
Fourth-year study for organ students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16ORGN420  
Organ Secondary  
Fourth-year secondary study in organ as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16ORGN500  
Organ Major  
Additional study for undergraduate organ majors who have completed the basic degree requirements; offered for undergraduate and graduate organ majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16ORGN510  
Organ Concentration  
Additional study in organ for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level organ students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN511  
Keyboard Harmony for Organists  
Emphasis on modulation, transposition, and beginning improvisation. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

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H=University Honors course.
16ORGN512
Keyboard Harmony for Organists
Emphasis on modulation, transposition, and beginning improvisation. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN513
Keyboard Harmony for Organists
Emphasis on modulation, transposition, and beginning improvisation. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN521
Liturgical Organ Playing
Advanced hymn-playing skills, solo and anthem accompaniment, adapting piano and orchestral accompaniments to the organ, improvisation, and conducting from the console. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN522
Liturgical Organ Playing
Advanced hymn-playing skills, solo and anthem accompaniment, adapting piano and orchestral accompaniments to the organ, improvisation, and conducting from the console. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN530
Organ Elective
Nonrequired private study in organ; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16ORGN531
Organ Repertoire
A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN532
Organ Repertoire
A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN533
Organ Repertoire
A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN535
Organ Pedagogy
Teaching materials and studio practice; supervised teaching. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN536
Organ Pedagogy
Teaching materials and studio practice; supervised teaching. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN537
Organ Pedagogy
Teaching materials and studio practice; supervised teaching. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16ORGN541
Organ Repertoire
A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN542
Organ Repertoire
A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. Prereq: 16ORGN541. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN543
Organ Repertoire
A survey of organ literature from the medieval period to the avant-garde of the present, with emphasis on significant works of each period as well as on instruments for which they were intended. Prereq: 16ORGN542. BoK: FA., HP. Credit Level: U, G. Credit Hrs: 2.00

16ORGN550
Independent Study
In-depth study of a topic related to the organ, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16ORGN570
Introduction to the Organ
An introductory course in basic facets of organ playing designed primarily as a basis for further elective study. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16ORGN800
Organ Graduate Major Study
Preparation of two recital programs, one to be performed in public. J.S. Bach -- works such as Prelude and Fugue in E-Flat; extended 19th century works such as Fantasy and Fugue on Ad nos by Liszt or Sonata by Reubke; 20th Century compositions by Dupré, Hindemith, Sowerby, Distler, Messiaen, Albright, and others. Credit Level: G. Credit Hrs: 4.00

16ORGN810
Organ Concentration
Master's level study for students accepted for a cognate in organ performance. Credit Level: G. Credit Hrs: 2.00

16ORGN820
Organ Secondary
Secondary study in organ for master's degree students. Credit Level: G. Credit Hrs: 1.00

16ORGN880
Master Recital
Public performance by a master's degree student in organ of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16ORGN895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16ORGN899
Master's Candidacy
Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16ORGN900
Organ Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00
Percussion Concentration
16PERC200
Percussion Major Study
Development of technical facility on snare drum, mallet percussion instruments, and timpani. Texts by Goldenberg, Albright, Cirone, Payson, Kraus, Bergamo, Friedman, Burton, Green, Stout, Goodman, Firth, Hinger, and Hochrainer. Review of small percussion instrument techniques. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PERC201
Percussion Concentration
First-year study in percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PERC202
Percussion Secondary
First-year secondary study in percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PERC220
Percussion Concentration
Second-year study for percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PERC221
Percussion Secondary
Second-year secondary study in percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PERC300
Percussion Major Study
Continued work on the fundamentals of orchestral, solo, and chamber performance techniques. Development of contemporary techniques. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16PERC310
Percussion Concentration
Third-year study for percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PERC320
Percussion Secondary
Third-year secondary study in percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PERC400
Percussion Major Study
Mastery of concert performance techniques on all percussion instruments. Preparation of Senior Recital including representative works on all major instruments. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16PERC410
Percussion Concentration
Fourth-year study for percussion students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PERC420
Percussion Secondary
Fourth-year secondary study in percussion as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PERC500
Percussion Major
Additional study for undergraduate percussion majors who have completed the basic degree requirements; offered for undergraduate and graduate percussion majors during the Summer Session. BoK: FA. Credit Level: U. G. Credit Hrs: 4.00

16PERC510
Percussion Concentration
Additional study in percussion for undergraduate students at the concentration level who have completed the basic degree requirements; offered for all concentration level percussion students during the Summer Session. BoK: FA. Credit Level: U. G. Credit Hrs: 2.00

16PERC530
Percussion Elective
Nonrequired private study in percussion; requires permission of the department and the college. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-2.00

16PERC560
Independent Study
In-depth study of a topic related to percussion, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-12.00

16PERC581
Improvisation and MIDI for Percussion
Covers improvisation and MIDI technology for percussionists. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00

16PERC582
Improvisation and MIDI for Percussion
Continuation of 16PERC581. Prereq: 16PERC581. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00

16PERC670
Percussion Ensemble
An organization reading and performing works for large percussion ensemble and smaller percussion chamber ensembles drawing upon...
Percussion

16PERC670
Percussion Ensemble
works of the classical and contemporary repertoire. BoK: FA. Credit Level: U. Credit Hrs: 0.00-1.00

16PERC800
Percussion Major Study
Preparation of one recital program to be performed in public. Including major advanced works from the percussion repertoire, or possibly works employing instrument design and construction, percussion with electronics or other experimental percussion projects. Advanced study of the passages from the orchestral repertoire available. Credit Level: G. Credit Hrs: 4.00

16PERC810
Percussion Concentration
Master's level study for students accepted for a cognate in percussion performance. Credit Level: G. Credit Hrs: 2.00

16PERC820
Percussion Secondary
Secondary study in percussion for master's degree students. Credit Level: G. Credit Hrs: 1.00

16PERC850
Artist Diploma in Percussion
First-year major study in percussion for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16PERC855
Artist Diploma Recital
Public performance by an artist diploma student in percussion of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16PERC880
Master Recital
Public performance by a master's degree student in percussion of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16PERC895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16PERC899
Master's Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16PERC900
Percussion Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16PERC910
Percussion Concentration
Doctoral level study for students accepted for a cognate in percussion performance. Credit Level: G. Credit Hrs: 2.00

16PERC920
Percussion Secondary
Secondary study in percussion for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16PERC930
Percussion Elective
Nonrequired private study in percussion for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16PERC950
Artist Diploma in Percussion
Second-year major study in percussion for students accepted into the Artist Diploma in Percussion. Credit Level: G. Credit Hrs: 6.00

H = University Honors course.
Piano

16PIAN200 Piano Major Study

16PIAN210 Piano Concentration
Second-year study for piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN211 Keyboard Skills
Specialized training in keyboard skills that lead to well rounded musicianship. The class includes: Sight-reading, harmonicization of melodies, score reading, transposition, modal and whole tone scales and harmony, score and accompaniment reductions, and pop/jazz realizations. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN212 Keyboard Skills
Specialized training in keyboard skills that lead to well rounded musicianship. The class includes: Sight-reading, harmonicization of melodies, score reading, transposition, modal and whole tone scales and harmony, score and accompaniment reductions, and pop/jazz realizations. Prereq: 16PIAN211. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN213 Keyboard Skills
Specialized training in keyboard skills that lead to well rounded musicianship. The class includes: Sight-reading, harmonicization of melodies, score reading, transposition, modal and whole tone scales and harmony, score and accompaniment reductions, and pop/jazz realizations. Prereq: 16PIAN212. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN220 Piano Secondary
Second-year secondary study in piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN221 Collaborative Piano I
Classes devoted to the pianist's role in both vocal and chamber music repertoire. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN222 Collaborative Piano I
Continuation of 16 PIAN 221. Prereq: 16PIAN221. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN223 Collaborative Piano I
Continuation of 16 PIAN 222. Prereq: 16PIAN222. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN231 Piano Forum II
Continuation of Piano Forum I for second-year piano majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN232 Piano Forum II
Continuation of Piano Forum I for second-year piano majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN233 Piano Forum II
Continuation of Piano Forum I for second-year piano majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN234 Piano Concentration
Fourth-year study for piano students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN240 Piano Secondary
Fourth-year secondary study in piano as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.
Piano

16PIAN421
Collaborative Piano III
Classes devoted to the pianists role in both vocal and chamber music repertoire. Prereq: 16PIAN323. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN422
Collaborative Piano III
Continuation of 16 PIAN 421. Prereq: 16PIAN421. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN423
Collaborative Piano III
Continuation of 16 PIAN 422. Prereq: 16PIAN422. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16PIAN431
Introduction to Piano Pedagogy
Beginning to intermediate teaching, both in private and group situations; children through adult. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN432
Introduction to Piano Pedagogy
Continuation of 16 PIAN 431. Prereq: 16PIAN431. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN433
Introduction to Piano Pedagogy
Continuation of 16 PIAN 432. Prereq: 16PIAN432. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN500
Piano Major
Additional study for undergraduate piano majors who have completed the basic degree requirements; offered for undergraduate and graduate piano majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16PIAN501
Group Piano for Nonmusic Majors
Designed for those with little or no piano experience; teaches the fundamentals of reading music, playing by ear, using chord charts, and improving finger flexibility. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN502
Group Piano for Nonmusic Majors, Level 2
Designed for those with little or no piano experience; teaches the fundamentals of reading music, playing by ear, using chord charts, and improving finger flexibility. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN510
Piano Concentration
Additional study in piano for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level piano students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN520
Secondary Piano
Additional study in secondary piano for undergraduate students who have completed the basic degree requirements. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN521
Piano Pedagogy
Emphasis on materials and techniques used in early piano study. Assignments and lectures include: piano method book evaluations, observations of children, instruction on beginning piano teaching, the business aspect of teaching, review of magazines available to pianists and piano teachers, and review of supplemental music that can correlate with piano method books. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Piano

16PIAN522
Piano Pedagogy
Emphasis on materials and techniques employed when teaching intermediate and advanced students. Assignments and lectures include: evaluation and leveling of intermediate and advanced repertoire, observations of intermediate and advanced students, technique repertoire and famous technicians with their philosophies, master class teaching techniques. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN523
Piano Pedagogy
Emphasis on group teaching repertoire and techniques. Assignments and lectures include: Evaluation of group piano texts, sequencing group piano concepts, observation and teaching of a group piano class, discussions and readings of select topics associated with the field of Piano Pedagogy. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16PIAN530
Piano Elective
Nonrequired private study in piano; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16PIAN531
Master Class in Piano Performance
A weekly master class taught on a rotating basis by the various members of the major piano faculty, with occasional guest presentations. Each student is expected to play in class at least once each quarter. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN532
Master Class in Piano Performance
A weekly master class taught on a rotating basis by the various members of the major piano faculty, with occasional guest presentations. Each student is expected to play in class at least once each quarter. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN560
Independent Study
In-depth study of a topic related to the piano, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16PIAN570
Introduction to Electronic Keyboards
Basic course designed to familiarize pianists with various types and uses of electronic keyboards. Select topics will be presented using technology available to the instructor. Assignments and lectures will include basic information on MIDI, synthesizers, and sequencing. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN581
Collaborative Piano Seminar
Performance seminars devoted to specific areas of voice and keyboard repertoire. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN590
PianoFest Cincinnati
An highly specialized summer workshop/festival for pianists. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

16PIAN611
Two-Piano Four-Hand Repertoire
A study of the repertoire for two pianos and one piano four hands. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

H-University Honors course.
16PIAN832
Two-Piano Four-Hand Repertoire
A study of the repertoire for two pianos and one piano four hands. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN831
Piano Literature for the Intermediate Student
A series of special-topic seminars in piano literature. Prereq: 16PIAN832. Credit Level: G. Credit Hrs: 1.00-2.00

16PIAN865
Recital Coaching
Available to MM accompanying majors and DMA accompanying cognates only. Credit Level: G. Credit Hrs: 1.00

16PIAN860
Master Piano Recital
Public performance by a master's degree student in piano of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16PIAN870
Collaborative Piano Recital
Public performance by a master's degree student in accompanying of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00

16PIAN880
Master Piano Recital
Public performance by a master's degree student in piano of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16PIAN855
Artistic Diploma Recital
Public performance by an artist diploma student in piano of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16PIAN850
Artist Diploma in Piano
First-year major study in piano for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16PIAN842
Survey of Sonatas for Piano and Strings
Specified repertoire; learning how to collaborate from an interpretive and performing view. Credit Level: G. Credit Hrs: 2.00

16PIAN843
Survey of Sonatas for Piano and Winds
Specified repertoire; learning how to collaborate from an interpretive and performing view. Credit Level: G. Credit Hrs: 2.00

16PIAN841
Major Concerti
Class focuses on performance issues related to the playing of orchestral reductions in the standard concerto repertoire. Credit Level: G. Credit Hrs: 2.00

16PIAN885
Piano Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16PIAN830
Special Topics
Topics established every quarter by Department/Division. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-3.00

16PIAN612
Two-Piano Four-Hand Repertoire
A study of the repertoire for two pianos and one piano four hands. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16PIAN895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16PIAN890
Recital Coaching
Available to MM accompanying majors and DMA accompanying cognates only. Credit Level: G. Credit Hrs: 1.00

16PIAN859
Master's Candidacy
Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16PIAN900
Piano Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16PIAN621
Piano Technology for Pianists
Development of the knowledge and skills necessary for the tuning of pianos, including understanding and usage of appropriate technology. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN630
Piano technology for pianists
Development of the knowledge and skills necessary for the tuning of pianos, including understanding and usage of appropriate technology. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16PIAN600
Piano Graduate Major Study
Preparation of two recital programs, both to be performed in public. The selection of compositions should reflect mature musicianship, knowledge of different styles, and advanced keyboard facility. A composition written since 1920 is required. Credit Level: G. Credit Hrs: 4.00

16PIAN610
Piano Concentration
Master's level study for accompanying majors and for other students accepted for a cognate in piano performance. Credit Level: G. Credit Hrs: 2.00

16PIAN620
Secondary (Class) Piano
Basic keyboard skills, elementary and intermediate repertoire and technique for graduate students with limited keyboard facility. Successful completion of course (one year) with an average of B or better satisfies graduate piano proficiency requirement. Credit Level: G. Credit Hrs: 1.00

16PIAN631
Piano Literature for the Intermediate Student
Focus on method books available to traditional intermediate students. Review collected literature for intermediate students, working on leveling of material. Review 20th-century pedagogical composers, and investigate technical materials and methods. Credit Level: G. Credit Hrs: 2.00

16PIAN632
Career Skills for Piano Teachers
Focus on judging, masterclassing, and group teaching. Learn to teach "Clavinoca Connections," adult recreational piano courses, and children's classes. Group teaching techniques. Prereq: 16PIAN831. Credit Level: G. Credit Hrs: 2.00
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
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<td>16PIAN910</td>
<td>Piano Concentration</td>
<td>Doctoral-level study for students accepted for a cognate in piano performance. Credit Level: G. Credit Hrs: 2.00</td>
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<td>16PIAN920</td>
<td>Piano Secondary</td>
<td>Secondary study of piano at the doctoral level. Credit Level: G. Credit Hrs: 1.00</td>
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<td>16PIAN921</td>
<td>Early Keyboard</td>
<td>Seminar in the keyboard literature prior to the classical era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>16PIAN922</td>
<td>Early Keyboard</td>
<td>Seminar in the keyboard literature prior to the classical era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>16PIAN923</td>
<td>Early Keyboard</td>
<td>Seminar in the keyboard literature prior to the classical era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>3.00</td>
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<td>16PIAN924</td>
<td>Classicism</td>
<td>Seminar in piano literature of the era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>16PIAN925</td>
<td>Classicism</td>
<td>Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>16PIAN926</td>
<td>Classicism</td>
<td>Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>16PIAN927</td>
<td>Romanticism</td>
<td>Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>16PIAN928</td>
<td>Romanticism</td>
<td>Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>16PIAN929</td>
<td>Romanticism</td>
<td>Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>3.00</td>
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<td>16PIAN930</td>
<td>Piano Elective</td>
<td>Nonrequired private study in piano for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00</td>
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<td>1.00-2.00</td>
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<td>16PIAN931</td>
<td>20th Century</td>
<td>Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00</td>
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<td>16PIAN932</td>
<td>20th Century</td>
<td>Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>16PIAN933</td>
<td>20th Century</td>
<td>Seminar in the piano literature of the era. Credit Level: G. Credit Hrs: 3.00</td>
<td>G</td>
<td>3.00</td>
</tr>
</tbody>
</table>

**Piano**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>16PIAN941</td>
<td>Seminar in Piano Pedagogy</td>
<td>Proseminar concentrating on learning theory, piano technique, issues concerning piano pedagogy and famous pedagogues. Includes preparation for job interviews and curriculum development. Prereq.: Piano Pedagogy cognates Credit Level: G. Credit Hrs: 3.00</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>16PIAN942</td>
<td>Seminar in Piano Pedagogy</td>
<td>Technology centered, with an in-depth look into MIDI applications, current computer programs available for teaching piano, and sequencing/notation software. Credit Level: G. Credit Hrs: 3.00</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>16PIAN943</td>
<td>Seminar in Piano Pedagogy</td>
<td>Focus on individual research projects designed and executed by participants. Resulting projects will be suitable for publication in journals or for presentation at professional conventions and workshops. Credit Level: G. Credit Hrs: 3.00</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>16PIAN950</td>
<td>Artist Diploma Piano Study</td>
<td>Second-year major study in piano for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00</td>
<td>G</td>
<td>6.00</td>
</tr>
<tr>
<td>16PIAN951</td>
<td>Supervised Piano Teaching</td>
<td>Teach piano lessons under the supervision of one or more teachers, as selected by the cognate advisor in consultation with the Head of the Keyboard Division and Chair of the Piano Department. May be repeated for additional credit with perm. of cognate adviser. Credit Level: G. Credit Hrs: 1.00</td>
<td>G</td>
<td>1.00</td>
</tr>
<tr>
<td>16PIAN952</td>
<td>Supervised Piano Teaching</td>
<td>Teach piano lessons under the supervision of one or more teachers, as selected by the cognate advisor in consultation with the Head of the Keyboard Division and Chair of the Piano Department. May be repeated for additional credit with permission of cognate advisor. Credit Level: G. Credit Hrs: 1.00</td>
<td>G</td>
<td>1.00</td>
</tr>
<tr>
<td>16PIAN953</td>
<td>Supervised Piano Teaching</td>
<td>Teach piano lessons under the supervision of one or more teachers, as selected by the cognate advisor in consultation with the Head of the Keyboard Division and Chair of the Piano Department. May be repeated for additional credit with permission of cognate advisor. Credit Level: G. Credit Hrs: 1.00</td>
<td>G</td>
<td>1.00</td>
</tr>
<tr>
<td>16PIAN960</td>
<td>Doctoral Piano Concerto</td>
<td>Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00</td>
<td>G</td>
<td>2.00</td>
</tr>
<tr>
<td>16PIAN970</td>
<td>Doctoral Solo Recital</td>
<td>Public performance by a doctoral student in piano of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-3.00</td>
<td>G</td>
<td>1.00-3.00</td>
</tr>
<tr>
<td>16PIAN971</td>
<td>Doctoral Chamber Recital</td>
<td>Public performance by a doctoral student in piano of selected works from the chamber music repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00</td>
<td>G</td>
<td>2.00</td>
</tr>
<tr>
<td>16PIAN980</td>
<td>Doctoral Lecture Recital</td>
<td>Combined public lecture and performance of a selected topic in the piano repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00</td>
<td>G</td>
<td>3.00</td>
</tr>
</tbody>
</table>

**BoK (Breadth of Knowledge) Coding.**
- DC: Diversity & Culture.
- EC: English composition.
- FA: Fine Arts.
- HP: Historical Perspectives.
- HU: Humanities.
- LT: Literature.
- NS: Natural Sciences.
- QR: Quantitative Reasoning.
- SE: Social & Ethical Issues.
- SS: Social Sciences.
Piano

16PIAN990
DMA Document
Research and preparation of the final written project for the DMA degree in piano; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Saxophone

16SAX100
Saxophone Major Study
Technical requirements: development of embouchure and fingering; all major and minor scales; proper breath support, articulations and vibrato. Teal -- Saxophonist's Workbook, Salvanti-Lasilli -- Exercises, Mule -- Scales and Arpeggios Book 1, Mule -- Etudes after Berbiguière, Ibert -- Histoires, Bozza -- Aria, Lecail -- Fantaisie Concertante, Bach-Mule -- Fourth Sonata (Flute), Geo -- Ballade or works of comparable difficulty. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16SAX110
Saxophone Concentration
First-year study for saxophone students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16SAX120
Saxophone Secondary
First-year secondary study in saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16SAX200
Saxophone Major Study

16SAX210
Saxophone Concentration
Second-year study for saxophone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16SAX220
Saxophone Secondary
Second-year secondary study in saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16SAX300
Saxophone Major Study

16SAX310
Saxophone Concentration
Third-year study for saxophone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16SAX320
Saxophone Secondary
Third-year secondary study in saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16SAX400
Saxophone Major Study

16SAX400
Saxophone Major Study
Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16SAX410
Saxophone Concentration
Fourth-year study for saxophone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16SAX420
Saxophone Secondary
Fourth-year secondary study in saxophone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16SAX500
Saxophone Major
Additional study for undergraduate saxophone majors who have completed the basic degree requirements; offered for undergraduate and graduate saxophone majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U. G. Credit Hrs: 4.00

16SAX510
Saxophone Concentration
Additional study in saxophone for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level saxophone students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U. G. Credit Hrs: 2.00

16SAX530
Saxophone Elective
Nonrequired private study in saxophone; requires permission of the department and the college. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-2.00

16SAX560
Independent Study
In-depth study of a topic related to the saxophone, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-12.00

16SAX670
Saxophone Ensemble
Rehearsal/coaching of saxophone ensembles. BoK: NA. Credit Level: U. G. Credit Hrs: 0.00-1.00

16SAX680
Saxophone Studio Class
Weekly master class for saxophone students. BoK: NA. Credit Level: U. G. Credit Hrs: 0.00-1.00

16SAX800
Saxophone Graduate Major Study
Preparation of two recital programs, one to be performed in public. Repertoire of a high level of difficulty suited to the needs of the individual student. Credit Level: G. Credit Hrs: 4.00

16SAX810
Saxophone Concentration
Master's level study for students accepted for a cognate in saxophone performance. Credit Level: G. Credit Hrs: 2.00

16SAX820
Saxophone Secondary
Secondary study in saxophone for master's degree students. Credit Level: G. Credit Hrs: 1.00

16SAX850
Artist Diploma in Saxophone
First-year major study in saxophone for students accepted into the artist diploma program. NOTE: The Artist Diploma degree program in saxophone is not currently available. Credit Level: G. Credit Hrs: 6.00

H=University Honors course.
Saxophone

16SAX985
Artist Diploma in Saxophone
First-year major study in saxophone for students accepted into the artist diploma program. NOTE: The Artist Diploma degree program in saxophone is not currently available. Credit Level: G. Credit Hrs: 6.00

16SAX855
Artist Diploma Recital
Public performance by an artist diploma student in saxophone of selected compositions; approved and graded by the faculty. NOTE: The Artist Diploma degree program in saxophone is not currently available. Credit Level: G. Credit Hrs: 2.00

16SAX880
Master Recital
Public performance by a master's degree student in saxophone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16SAX995
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16SAX999
Master's Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16SAX900
Saxophone Major
Doctoral-level study for saxophone performance majors. Credit Level: G. Credit Hrs: 4.00

16SAX910
Saxophone Concentration
Doctoral-level study for students accepted for a cognate in saxophone performance. Credit Level: G. Credit Hrs: 2.00

16SAX920
Saxophone Secondary
Secondary study in saxophone for doctoral-level students. Credit Level: G. Credit Hrs: 1.00

16SAX930
Saxophone Elective
Nonrequired private study in saxophone for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16SAX950
Artist Diploma in Saxophone
Second-year major study in saxophone for students accepted into the artist diploma program. NOTE: The Artist Diploma program in saxophone is not currently available. Credit Level: G. Credit Hrs: 6.00

16SAX960
Saxophone Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16SAX970
Doctoral Recital
Public performance by a doctoral student in saxophone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16SAX980
Lecture Recital
Combined public lecture and performance of a selected topic in the saxophone repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16SAX990
DMA Document
Research and preparation of the final written project for the DMA
### Theater Production

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisite(s)</th>
<th>BoK:</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>16THPR151</td>
<td>Introduction to Stagecraft Lab and Crew</td>
<td>Practicum in construction of stage scenery and assignment to running crews for major productions.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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</tr>
<tr>
<td>16THPR160</td>
<td>Survey of Theatrical Design</td>
<td>Introduction to the principles and goals of set, costume and makeup, lighting, and sound design for the stage. Lecture format with use of slides and other visual aids. Guest lectures from CCM design and directing faculty.</td>
<td>BoK: FA, HP</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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</tr>
<tr>
<td>16THPR201</td>
<td>Introduction to Costume Construction</td>
<td>An introduction to the study and practice of core costume construction skills. Topics include proper machine use and maintenance, basic machine and hand-sewing techniques, seams and seam finishes, zippers, pockets and other foundation skills of costume construction. Pre-Co-requisite for all costume design and technology courses.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR202</td>
<td>Costume Construction</td>
<td>A continuation of costume construction core skill- building. Topics include research and construction of period corsets, 18th century breeches, and 16th to 18th century bodices and skirts.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR204</td>
<td>Makeup I</td>
<td>A full-year course for performers, undergraduate makeup majors, costume designers. Covers: bone structure, corrective makeup, age makeup, three dimensional makeup, facial hair, racial makeup, special effects, nonrealistic makeup. Makeup Lab and Crew required for makeup and costume majors.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR205</td>
<td>Makeup I</td>
<td>A full-year course for performers, undergraduate makeup majors, costume designers. Covers: bone structure, corrective makeup, age makeup, three dimensional makeup, facial hair, racial makeup, special effects, nonrealistic makeup. Makeup Lab and Crew required for makeup and costume majors.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR206</td>
<td>Makeup I</td>
<td>A full-year course for performers, undergraduate makeup majors, costume designers. Covers: bone structure, corrective makeup, age makeup, three dimensional makeup, facial hair, racial makeup, special effects, nonrealistic makeup. Makeup Lab and Crew required for makeup and costume majors.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR207</td>
<td>Stage Lighting I</td>
<td>A study of basic electricity and theatrical lighting equipment. Emphasis on the technical aspects of stage lighting, with an introduction to the principles of lighting design. Classes are accompanied by crew assignments.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR208</td>
<td>Stage Lighting I</td>
<td>A study of basic electricity and theatrical lighting equipment. Emphasis on the technical aspects of stage lighting, with an introduction to the principles of lighting design. Classes are accompanied by crew assignments.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR209</td>
<td>Stage Lighting I</td>
<td>A study of basic electricity and theatrical lighting equipment. Emphasis on the technical aspects of stage lighting, with an introduction to the principles of lighting design. Classes are accompanied by crew assignments.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR210</td>
<td>Introduction to Rendering for Stage Design</td>
<td>Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR211</td>
<td>Technical Production I</td>
<td>Introduction to technical theater, its tools, construction methods, and rigging techniques. Primarily for undergraduate technical production majors. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production.</td>
<td>BoK: FA, QR</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
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</tr>
<tr>
<td>16THPR212</td>
<td>Technical Production I</td>
<td>Introduction to technical theater, its tools, construction methods, and rigging techniques. Primarily for undergraduate technical production majors. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production.</td>
<td>BoK: FA, QR</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16THPR213</td>
<td>Technical Production I</td>
<td>Introduction to technical theater, its tools, construction methods, and rigging techniques. Primarily for undergraduate technical production majors. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production.</td>
<td>BoK: FA, QR</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR214</td>
<td>Rendering for Stage Designers</td>
<td>Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16THPR215</td>
<td>Rendering for Stage Designers</td>
<td>Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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</tr>
<tr>
<td>16THPR216</td>
<td>Rendering for Stage Designers</td>
<td>Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances.</td>
<td>BoK: FA</td>
<td>Credit Level: U. Credit Hrs: 3.00</td>
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</table>

H=University Honors course.  
**Theater Production**

**16THPR218**  
Drafting for the Theater I  
Introduction to basic board drafting techniques: line conventions, orthographic and isometric projections, sectioning, floorplan, elevations, and details. Class demonstrations followed by hands-on studio drafting. Drafting homework projects executed outside of class. BoK: FA., QR.  
Credit Level: U. Credit Hrs: 2.00

**16THPR219**  
Drafting for the Theater I  
Introduction to basic board drafting techniques: line conventions, orthographic and isometric projections, sectioning, floorplan, elevations, and details. Class demonstrations followed by hands-on studio drafting. Drafting homework projects executed outside of class. Prereq: 16THPR218. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

**16THPR221**  
Theater Sound Technology  
Introduction to the technical processes of theater sound production. Acoustics, basic physics of sound equipment use and terminology and TD&amp;P majors must register for Theatre Sound Lab and Crew to complete their requirement (2 credits). BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR222**  
Theater Sound Technology Lab and Crew  
Supervised laboratory and production crew assignment. BoK: FA.  
Credit Level: U. Credit Hrs: 2.00

**16THPR240**  
Assistant Stage Management  
One quarter introductory course in stage management for drama, opera, and musical theater. Emphasis on basic assistant stage management skills, including assembling a prompt book, costume & prop tracking, scenic shift plots, deck crew paperwork, and professional etiquette. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR241**  
Stage Management I  
Emphasis on practical aspects of organizing auditions, scheduling, running rehearsals, tech, and performances, assembling a working prompt script, taking blocking notation, cueing, conducting production meetings and calling the show. Prerequisite: 16 THPR 240; must be taken in sequence. Majors only. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

**16THPR242**  
Stage Management I  
Continuation of 16 THPR 241. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR243**  
Stage Management I  
Continuation of 16 THPR 242. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR254**  
History of Costume and Pattern Development  
A study of the evolution and development of dress (costume) and personal adornment from pre-history to contemporary time including an examination of the development of patterning, cutting and construction techniques throughout. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR255**  
History of Costume and Pattern Development  
Continuation of 16 THPR 254. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR256**  
History of Costume and Pattern Development  
Continuation of 16 THPR 255. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**Theater Production**

**16THPR270**  
Scene Painting I  
A one quarter course in the basic materials, methods, and techniques of the scenic artist. Scenic layout and the rendering of various textures and surfaces is explored through demonstrations and studio practice. Paint clothes required. BoK: FA. Credit Level: U. Credit Hrs: 2.00

**16THPR271**  
Digital Audio Systems  
Overview of digital audio systems as applied to the performing arts. Topics will include script analysis for the designer, developing a concept, music research, translating emotions and visual materials into sound and basic paper. (Prereq: Theatre Sound Technology & Digital Audio or permission). BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR272**  
Introduction to Sound Design  
An introduction to the principles of sound design in live drama production. Topics will include script analysis for the designer, developing a concept, music research, translating emotions and visual materials into sound and basic paper. (Prereq: Theatre Sound Technology & Digital Audio or permission) BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR273**  
Sound Production Practicum  
Continuing production credit for students electively serving as a sound running crew or as sound operator for OMDA production. BoK: FA. Credit Level: U. Credit Hrs: 1.00-4.00

**16THPR280**  
Scene Painting II  
A one quarter course in the painting of intermediate level projects from scaled elevations. Rendering of mouldings, paneling, drapery, three dimensional objects, foliage, and landscapes in studio. Paint clothes required. BoK: FA. Credit Level: U. Credit Hrs: 2.00

**16THPR301**  
Pattern Drafting I  
An introductory level course intended to develop the students' understanding of basic pattern drafting. The core work will include drafting garments for each quadrant of the body, creating mock-ups and testing for fit. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR302**  
Draping I  
Draping I is designed to further the student's understanding of pattern making through the exploration of the three dimensional techniques of draping. The core work will include the elements of scupture through draping, understanding fabrics, creating mock-ups and testing for fit. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR303**  
Tailoring I  
Tailoring I is an introductory course designed to develop the students' skills in the sewing techniques of tailoring. The core work will include a variety of projects that will explore several tailoring techniques both historical and contemporary. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR307**  
Makeup II  
A full year course in practical application of makeup for makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**16THPR308**  
Makeup II  
A full year course in practical application of makeup for makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. Prereq: 16THPR307. BoK: FA. Credit Level: U. Credit Hrs: 3.00

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H=University Honors course.  
Theater Production

16THPR309
Makeup II
A full year course in practical application of makeup for makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. Prereq: 16THPR308. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR314
Stage Lighting II
An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing a design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR315
Stage Lighting II
An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing a design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Prereq: 16THPR314. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR316
Stage Lighting II
An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing a design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Prereq: 16THPR315. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR317
Stage Lighting III
Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Prereq: 16THPR316. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR318
Stage Lighting III
Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Prereq: 16THPR317. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR319
Stage Lighting III
Advanced design course for BFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Prereq: 16THPR318. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR324
Stage Management II
Roundtable discussion of problems facing the lead stage manager on a production. Alternate perspectives to be offered by guest stage managers, directors, designers, and other theatre professionals. Additional study of Actors Equity Association (musicals and dramas) and American Guild of Musical Artists (operas and dance) rulebooks as pertains to running rehearsals and performances. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16THPR325
Stage Management II
Continuation of 16THPR324. Prereq: 16THPR324. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16THPR326
Stage Management II
Continuation of 16THPR325. Prereq: 16THPR325. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16THPR327
Structural Design for the Stage
This course will provide the theater technician with the foundation in structural design allowing an intuitive understanding of "why sets stand up." It introduces the basics of statics and the strength of materials as they apply to typical scenery. Prereq: 16THPR213. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR328
Structural Design for the Stage
Continuation of 16THPR327. Prereq: 16THPR213. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR329
Structural Design for the Stage
Continuation of 16THPR327, 328. Prereq: 16THPR328. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR331
Technical Production II
Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16THPR332
Technical Production II
Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. Prereq: 16THPR331. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16THPR333
Technical Production II
Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. Prereq: 16THPR332. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00

16THPR339
Sound Design Practicum
Supervised sound design and assistant assignments for OMDA productions. BoK: FA. Credit Level: U. Credit Hrs: 1.00-4.00

16THPR341
Stage Design I
Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR342
Stage Design I
Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Prereq:

H=University Honors course.
Theater Production

16THPR342
Stage Design I
16THPR341. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR343
Stage Design I
Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Prereq: 16THPR342. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR347
Drafting for the Theater II
Advanced board drafting projects assigned in accordance with student's prior drafting experience and skill level. Group and individual lessons. Actual production drafting projects assigned where feasible. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16THPR348
Drafting for the Theater II
Advanced board drafting projects assigned in accordance with student's prior drafting experience and skill level. Group and individual lessons. Actual production drafting projects assigned where feasible. BoK: FA, QR. Credit Level: U. Credit Hrs: 2.00

16THPR364
Sound Design I
Sound design course focused on dramatic production including advanced work in script analysis, sound score development, sound effects editing, listening skills, designer documentation and communication skills. Perm of Instructor. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR365
Sound Design I
A continuation of training for the sound designer with a focus on reinforcement, musical theatre and recording. Projects will include paper designs with emphasis on clear communication through paperwork, conceptual development of reinforcement systems and practical recording projects. Operation of wireless mic systems and orchestra micing will also be covered along with continued training in critical listening. Prereq: 16THPR364. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR366
Sound Design I
A continuation of Sound Design Ia with the emphasis on full length works including American classics and Shakespeare. Designs will be more fully developed with complete paperwork required and practical projects. Advanced work in multi-track playback and digital editing will be included along with continued training in critical listening. Prereq: 16THPR365. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR374
Pneumatics and Hydraulics
The study and practical application of mechanical systems for use on stage. This will include the physics behind the designing of stage machinery and the ultimate automation and show control. Prereq: 16THPR213. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16THPR375
Electrics and Electronics
Continuation of 16THPR374. Prereq: 16THPR374. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

16THPR376
Motors and Automation
Continuation of 16THPR374, 375. Prereq: 16THPR375. BoK: FA, QR. Credit Level: U. Credit Hrs: 3.00

Theater Production

16THPR404
Pattern Drafting II
Pattern Drafting II is a course that is intended to further the student's basic patterning skill set by drafting patterns for bias garments, stretch knit garments and historical garments. Both modern drafting and historical drafting techniques will be introduced. The students will create mock-ups and test fit on both the form and a model. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR405
Draping II
Draping II continues exploration of pattern making as sculpture. At this level the student will also be introduced to reading and interpreting renderings, researching historical garments, creating mock-ups and test fit on both the form and a model. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR406
Tailoring II
Tailoring II expands both the students construction and patterning skills. The core work will include and in depth study of men's historical patterns and tailoring historical patterns. Pattern development will include mock-ups, test fitting, cutting and tailoring a minimum of one complete men's historical garment. Prerequisites: Tailoring I, Pattern Drafting I, Draping I. Advanced Costume Construction or Permission of Instructor. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR411
Makeup III
Advanced study in all aspects of makeup. Approach to rendering. Producing foam latex appliances. Assisting for major productions and possible design of major productions. Lab and Crew. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR412
Makeup III
Advanced study in all aspects of makeup. Approach to rendering. Producing foam latex appliances. Assisting for major productions and possible design of major productions. Lab and Crew. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR413
Makeup III
Advanced study in all aspects of makeup. Approach to rendering. Producing foam latex appliances. Assisting for major productions and possible design of major productions. Lab and Crew. Prereq: 16THPR412. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16THPR427
Stage Management III
Emphasis on communication and management functions of the stage manager during production process, and investigation of Production Stage Manager's responsibilities, including scheduling and budget layout. Pre-requisite: 16THPR328; must be taken in sequence. Majors only. BFA by permission only. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16THPR428
Stage Management III
Continuation of 16 THPR 427. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16THPR429
Stage Management III
Continuation of 16 THPR 429. BoK: FA. Credit Level: U. Credit Hrs: 3.00-6.00

16THPR434
Technical Production III
Project oriented class for advanced BFA students in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments or major responsibility on actual productions. All projects to be accompanied with appropriate documentation. BoK: FA, QR. Credit Level: U. Credit Hrs:

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16THPR434</td>
<td>Technical Production III</td>
<td>3.00</td>
<td>Project oriented class for advanced BFA students in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments or major responsibility on actual productions. All projects to be accompanied with appropriate documentation. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR435</td>
<td>Technical Production III</td>
<td>3.00</td>
<td>Project oriented class for advanced BFA students in Technical production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments or major responsibility on actual productions. All projects to be accompanied with appropriate documentation. BoK: FA., QR. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR444</td>
<td>Stage Design II</td>
<td>3.00</td>
<td>Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>16THPR445</td>
<td>Stage Design II</td>
<td>3.00</td>
<td>Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>16THPR446</td>
<td>Stage Design II</td>
<td>3.00</td>
<td>Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR451</td>
<td>Makeup IV</td>
<td>0.00</td>
<td>Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assistanting for major productions. BoK: FA. Credit Level: U. Credit Hrs: 0.00</td>
</tr>
<tr>
<td>16THPR452</td>
<td>Makeup IV</td>
<td>0.00</td>
<td>Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assistanting for major productions. BoK: FA. Credit Level: U. Credit Hrs: 0.00</td>
</tr>
<tr>
<td>16THPR453</td>
<td>Makeup IV</td>
<td>0.00</td>
<td>Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assistanting for major productions. BoK: FA. Credit Level: U. Credit Hrs: 0.00</td>
</tr>
<tr>
<td>16THPR461</td>
<td>Costume Design I</td>
<td>3.00</td>
<td>Emphasis on script and character analysis, research, and production processes as they relate to costume design for contemporary and period plays. Project designing of plays with continued emphasis on figure drawing and rendering techniques. Possible costume design assisting as part of the class. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
</tbody>
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<tr>
<td>16THPR462</td>
<td>Costume Design I</td>
<td>3.00</td>
<td>Continuation of 16 THPR 461. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR463</td>
<td>Costume Design I</td>
<td>3.00</td>
<td>Continuation of 16 THPR 463. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR464</td>
<td>Costume Design II</td>
<td>3.00</td>
<td>Project designing for drama, musical theatre, opera and dance with emphasis on character development through costume. Production processes, intermediate rendering techniques, design assisting. Possible design assignments of studio productions may be apart of course work. Production book development, Portfolio Preparation. Prereq: 16THPR463. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR465</td>
<td>Costume Design II</td>
<td>3.00</td>
<td>Continuation of 16 THPR 464. Prereq: 16THPR464. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR466</td>
<td>Costume Design II</td>
<td>3.00</td>
<td>Continuation of 16 THPR 465. Prereq: 16THPR465. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>16THPR467</td>
<td>Theater Music Production/Composing for the Theater</td>
<td></td>
<td>Intended for Sound Design students with a background in music who wish to compose original scores and produce music. Focus on composing and realizing music for the theater, with an emphasis on MIDI systems. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR468</td>
<td>Sound Design II</td>
<td>3.00</td>
<td>This course provides supervision and weekly roundtable discussions of current OMDA production designers and assistant designers. Required for sound majors, this course will focus on the actual realization of designs. Successful completion of this course requires attendance at all production meetings, effective communication with the design/ production team and leadership, production of an effective show design and proper documentation. Enrollment is coordinated with production assignments. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR474</td>
<td>Costume Design III</td>
<td>3.00</td>
<td>Advanced projects in designing costumes for drama, opera, musical theatre and dance with emphasis on developing and working within production concepts. Advanced rendering techniques. Possible design assisting. Possible design assignments of studio and/or mainstage productions. Production book development. Portfolio Preparation. Prerequisite: Permission of Instructor. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR475</td>
<td>Costume Design III</td>
<td>3.00</td>
<td>Continuation of 16 THPR 475. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>16THPR476</td>
<td>Costume Design III</td>
<td>3.00</td>
<td>Continuation of 16 THPR 475. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>16THPR487</td>
<td>Millinery</td>
<td>3.00</td>
<td>Traditional and non-traditional methods of hat making are explored. Lecture/Demonstration format with individual projects. Production assignments as part of class are possible. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
</tbody>
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H=University Honors course.  
Theater Production

16THPR488
Fabric Modification
The study of fabric modification for the Theatre including painting, dyeing, printing, distressing, color matching, etc. Lecture/Demonstration format with individual projects. Production assignments as part of class are possible. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR489
Masks and Jewelry
Mask and jewelry making for the Theatre including traditional and non-traditional methods. Lecture/Demonstration format with individual projects. Production assignments as part of class are possible. BoK: NA. Credit Level: U. Credit Hrs: 3.00

16THPR500
Workshop Practicum
Practical application of design and technology for workshop productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-4.00

16THPR501
Introduction to Sound Design Lab and Crew
Co-requisite lab and crew for Introduction to Sound Design. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16THPR508
Stage Design Lab and Crew
Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR509
Stage Design Lab and Crew
Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR510
Stage Design Lab and Crew
Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR511
Digital Audio Lab and Crew
Co-requisite lab for Digital Audio. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16THPR518
Stage Lighting Lab and Crew
Practical production crew work in the execution of the lighting design for major opera, musical theatre, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR519
Stage Lighting Lab and Crew
Practical production crew work in the execution of the lighting design for major opera, musical theatre, and dramatic productions. May be repeated for credit. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR520
Stage Lighting Lab and Crew
Practical production crew work in the execution of the lighting design for major opera, musical theatre, and dramatic productions. May be repeated for credit. Prereq: 16THPR519. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR521
Theater Lighting Technology I
In-depth exploration of lighting technology, with emphasis on current static equipment, dimming, power distribution and trouble-shooting in a theatrical environment. Theoretical rigging, special effects, data distribution and low voltage wiring are also presented. Basic theatrical lighting console operation is also offered. Class requires permission of instructor. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00
An introduction to millinery, fabric painting/dyeing, mask and jewelry production. Critiques and discussions of live performances. Lab attendance at live performances. Prereq: 16THPR750. Credit Level: G. Credit Hrs: 4.00

16THPR551
Technical Production Lab and Crew
Practicum in construction of stage scenery and assignment to running crews for OMDA productions. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR552
Technical Production Lab and Crew
Practicum in construction of stage scenery and assignment to running crews for OMDA productions. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR553
Technical Production Lab and Crew
Practicum in construction of stage scenery and assignment to running crews for OMDA productions. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR560
Independent Study
In-depth study of a topic related to one of the areas of theatre production, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16THPR561
Makeup Lab and Crew
Training in building and running productions. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR562
Makeup Lab and Crew
Training in building and running productions. Prereq: 16THPR561. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR563
Makeup Lab and Crew
Training in building and running productions. Prereq: 16THPR562. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16THPR580
Introduction to Stage Design
An elementary introduction to the process of set design. Hands-on, project-oriented class. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

16THPR600
Lucca: Workshop Practicum in Theatrical Production
Technical and artistic creation, preparation, and performance of full-scale productions of two operas from the Italian repertoire. Students will train and execute under an international staff of design, technical, and craft artisans in the areas of scenic, costume, wig/makeup, lighting and production. BoK: FA. Credit Level: U, G. Credit Hrs: 7.00

16THPR660
Special Topics
Topics established by the area faculty on an as-needed basis. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-6.00

16THPR610
Introduction to Rendering for Stage Design
Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Prereq: 16THPR750. Credit Level: G. Credit Hrs: 3.00

16THPR700
Introduction to Costuming
An introduction to the process of costume design from the playscript to the production. Critiques and discussions of live performances. Lab and crew requirements. Credit Level: G. Credit Hrs: 3.00

16THPR701
Costume Technology I
An introduction to millinery, fabric painting/dyeing, mask and jewelry making for the stage. Lecture/demonstration format with use of slides and other visual aids. Individual projects with production assignments possible. Credit Level: G. Credit Hrs: 4.00
Theater Production

16THPR710  
Introduction to Makeup  
dimensional makeup, and facial expressions. Credit Level: G. Credit Hrs: 3.00

16THPR711  
Technical Production I  
Introduction to technical theater, its tools, construction methods, and rigging techniques. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production. Credit Level: G. Credit Hrs: 3.00

16THPR712  
Technical Production I  
Introduction to technical theater, its tools, construction methods, and rigging techniques. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production. Credit Level: G. Credit Hrs: 3.00

16THPR713  
Technical Production I  
Introduction to technical theater, its tools, construction methods, and rigging techniques. Theoretical classwork supplemented by actual construction of scenery and crew work for theater production. Credit Level: G. Credit Hrs: 3.00

16THPR714  
Rendering for Stage Designers  
Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Credit Level: G. Credit Hrs: 3.00

16THPR715  
Rendering for Stage Designers  
Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Credit Level: G. Credit Hrs: 3.00

16THPR716  
Rendering for Stage Designers  
Introduction to basic color, rendering and design techniques culminating in simple explorative set designs for dance, drama, and lyric theater. Demonstrations, discussion, assigned projects, field trips, and attendance at live performances. Credit Level: G. Credit Hrs: 3.00

16THPR718  
Drafting Theater I  
Introduction to basic board drafting techniques: line conventions, orthographic and isometric projections, sectioning, floorplan, elevations, and details. Class demonstrations followed by hands-on studio drafting. Drafting homework projects executed outside of class. Credit Level: G. Credit Hrs: 2.00

16THPR719  
Drafting Theater I  
Introduction to basic board drafting techniques: line conventions, orthographic and isometric projections, sectioning, floorplan, elevations, and details. Class demonstrations followed by hands-on studio drafting. Drafting homework projects executed outside of class. Credit Level: G. Credit Hrs: 2.00

16THPR720  
Introduction to Stage Lighting  
A basic survey of the materials, techniques, and strategies employed in the lighting of a stage production. Practical experience on lighting crews for departmental productions is required. Credit Level: G. Credit Hrs: 3.00

16THPR721  
Theater Sound Technology  
Introduction to the technical processes of theater sound production. Acoustics, basic physics of sound, equipment use and terminology will be discussed. Credit Level: G. Credit Hrs: 3.00

16THPR722  
Theater Sound Technology Lab and Crew  
Supervised laboratory and production crews assignment. Concurrent registration in 16THPR721. Credit Level: G. Credit Hrs: 2.00

16THPR727  
Structural Design for the Stage  
This course will provide the theater technician with the foundation in structural design allowing an intuitive understanding of "why sets stand up." It introduces the basics of statics and the strength of materials as they apply to typical scenery. Prereq: 16THPR713. Credit Level: G. Credit Hrs: 3.00

16THPR728  
Structural Design for the Stage  
Continuation of 16THPR 727. Prereq: 16THPR727. Credit Level: G. Credit Hrs: 3.00

16THPR729  
Structural Design for the Stage  
Continuation of 16THPR727, 728. Prereq: 16THPR728. Credit Level: G. Credit Hrs: 3.00

16THPR730  
Introduction to Theater Sound Technology  
Introduction to the technical processes of theater sound production. Acoustics, basic physics of sound, equipment use and terminology will be discussed. Prereq: 16THPR750. Credit Level: G. Credit Hrs: 3.00

16THPR731  
Basic Score Interpretation  
Intended for sound designers, stage managers and lighting designers, this class will teach fundamental/rudimentary musical skills which will enable the theatre practitioner to follow operatic and musical theatre scores. The course will provide basic skills to support cueing and timing of such shows and in communicating with directors and music directors using musical terms. Credit Level: G. Credit Hrs: 3.00

16THPR740  
Assistant Stage Management  
One quarter introductory course in stage management for drama, opera, and musical theater. Emphasis on basic assistant stage management skills, including assembling a prompt book, costume & prop tracking, scenic shift plots, deck crew paperwork and professional etiquette. Credit Level: G. Credit Hrs: 3.00

16THPR741  
Stage Management I  
Emphasis on practical aspects of organizing auditions, scheduling, running rehearsals, tech, and performances, assembling a working prompt script, taking blocking notation, cueing, conducting production meetings, and calling the show. Prerequisite: 16 THPR 740; must be taken in sequence. Majors only. Credit Level: G. Credit Hrs: 3.00

16THPR742  
Stage Management I  
Continuation of 16 THPR 741. Credit Level: G. Credit Hrs: 3.00

16THPR743  
Stage Management I  
Continuation of 16 THPR 742. Credit Level: G. Credit Hrs: 3.00

16THPR750  
Introduction to Stagecraft  
Introduction to the art and craft of technical theater, its tools, construction methods, and rigging techniques. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Theater Production

16THPR751
Introduction to Stagecraft Lab and Crew
Practicum in construction of stage scenery and assignment to running crews for major productions. Credit Level: G. Credit Hrs: 0.00-3.00

16THPR754
History of Costume and Pattern Development
A study of the evolution and development of dress (costume and personal adornment) from pre-history to contemporary time including an examination of the development of patterning, cutting and construction techniques throughout. Credit Level: G. Credit Hrs: 4.00

16THPR755
History of Costume and Pattern Development
Continuation of 16THPR754. Credit Level: G. Credit Hrs: 4.00

16THPR756
History of Costume and Pattern Development
Continuation of 16THPR755. Credit Level: G. Credit Hrs: 4.00

16THPR764
Sound Design I
Sound design course focused on dramatic production including advanced work in script analysis, sound score development, sound effects editing, listening skills, designers documentation and communication skills. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

16THPR765
Sound Design II
A continuation of training for the sound designer with a focus on reinforcement, musical theatre and recording. Projects will include paper designs with emphasis on clear communication through paperwork, conceptual development of reinforcement systems and practical recording projects. Operation of wireless mic systems and orchestra micing will also be covered along with continued work in critical listening skills. Prereq: 16THPR764. Credit Level: G. Credit Hrs: 3.00

16THPR766
Sound Design III
A continuation of Sound Design II with emphasis on full length works including American classics and Shakespeare. Designs will be more fully developed with complete paperwork required and practical projects. Advanced work in multi-track playback and digital editing will be included along with continued training in critical listening. Prereq: 16THPR765. Credit Level: G. Credit Hrs: 3.00

16THPR767
Theater Music Production/Composing for the Theater
Intended for sound design students with a background in music who wish to compose original scores and produce music. Focus on composing and realizing music for the theater, with an emphasis on MIDI systems. Credit Level: G. Credit Hrs: 3.00

16THPR768
Sound Design IV
This course provides supervision and weekly roundtable discussions of current OMDA production designers and assistant designers. Required for sound majors, the course will focus on the actual realization of designs. Successful completion of this course requires attendance at all production meetings, effective communication with the design/production team and leadership, production of an Credit Level: G. Credit Hrs: 3.00

16THPR770
Scene Painting I
A one quarter course in the basic materials, methods, and techniques of the scenic artist. Scenic layout and the rendering of various textures and surfaces explored through demonstrations and studio practice. Paint clothes required. Credit Level: G. Credit Hrs: 2.00

Theater Production

16THPR771
Digital Audio Systems
Overview of digital audio systems as applied to the performing arts. Topics covered will include: computer workstations, ProTools software, digital multi-tracks recorders, basic MIDI, minidisc, DAT and compact disc operations. Multimedia production and SFX software may be covered if time permits. Credit Level: G. Credit Hrs: 3.00

16THPR772
Introduction to Sound Design
An introduction to the principles of sound design in live drama production. Topics will include script analysis for the designer, developing a concept, music research, translating emotions and visual materials into sound and basic paperwork. Credit Level: G. Credit Hrs: 3.00

16THPR773
Sound Production Practicum
Continuing production credit for students electively serving as sound crew or as sound operator for OMDA productions. Credit Level: G. Credit Hrs: 1.00-4.00

16THPR774
Pneumatics and Hydraulics
This study and practical application of mechnical systems for use on stage. This will include the physics behind the designing of state machinery and the ultimate automation and show control. Prereq: 16THPR713. Credit Level: G. Credit Hrs: 3.00

16THPR775
Electrics and Electronics
Continuation of 16THPR774. Credit Level: G. Credit Hrs: 3.00

16THPR776
Motors and Automation
Continuation of 16THPR774, 775. Prereq: 16THPR775. Credit Level: G. Credit Hrs: 3.00

16THPR780
Survey of Theatrical Design
Introduction to the principles and goals of set, costume and makeup, lighting, and sound design for the stage. Lecture format with use of slides and other visual aids. Guest lectures from CCM design and directing faculty. Credit Level: G. Credit Hrs: 3.00

16THPR781
Advanced Character Figure Drawing
Advanced study of the human body as it relates to characterization, including but not limited to: age, size, proportion, emotion, etc. May be repeated. Permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR782
Advanced Costume Rendering
A further study of media and its application as used in costume rendering. Advanced rendering projects in color texture, fabric/color matching, layout and design of costume plates, etc. May be repeated. Permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR801
Pattern Drafting I
An introductory level course intended to develop the student's understanding of basic pattern drafting. The core work will include drafting garments for each quadrant of the body, creating mock-ups and testing for fit. Prerequisites: Intro to Costume Construction, Costume Construction, Tailoring I or by permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR802
Draping I
Draping I is designed to further the student's understanding of pattern making through the exploration of three-dimensional techniques of draping. The core work will include elements of sculpture through draping, understanding fabrics creating mock-ups and testing for fit. Prereq: Intro to Costume Construction, Costume Construction, Pattern

H=University Honors course.
16THPR802
Draping I
Drafting I or Permission of Instructor. Credit Level: G. Credit Hrs: 4.00

16THPR803
Tailoring I
Tailoring I is an introductory course designed to develop the students skills in the sewing techniques of tailoring. The core work will include a variety of projects that will explore several tailoring techniques both historical and contemporary. Prerequisites: Intro to Costume Design/Research Project: Stage Costume

16THPR804
Pattern Drafting II
Pattern drafting II is a course that is intended to further the students' basic pattern skill set by drafting patterns for bias garments, stretch knit garments and historical garments. Both modern drafting techniques will be introduced. The students will create mock-ups and test fit on both the form and a model. Prerequisites: Pattern Drafting I, Costume Construction, or permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR805
Draping II
Draping II continues exploration of pattern making as sculpture. At this level the student will also be introduced to reading and interpreting rendering, researching historical garments, creating mock-ups and test fit on both the form and a model. Prerequisites: Draping I, Pattern Drafting I or Permission of Instructor. Credit Level: G. Credit Hrs: 4.00

16THPR806
Tailoring II
Tailoring II expands both the students construction and pattern skills. The core work will include an in depth study of men's historical patterns. Pattern development will include mock-ups, test fitting, cutting and tailoring a minimum of one complete men's historical garment. Prerequisites: Tailoring I, Pattern Drafting I, Draping I, Advanced Costume Construction or permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR807
Makeup II
A full year course in practical application of makeup for makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. Credit Level: G. Credit Hrs: 4.00

16THPR808
Makeup II
A full year course in practical application of makeup majors, costume designers, performers. Includes making wigs and facial hair, styling wigs. Makeup assistance for current productions. Lab and Crew also required. Credit Level: G. Credit Hrs: 4.00

16THPR809
Makeup III
A full year course for Makeup majors, stressing advanced practice in all aspects of makeup. Practical experience in the design and execution of makeup and wigs under production circumstances. Credit Level: G. Credit Hrs: 4.00

16THPR810
Design/Research Project: Stage Costume
(MFA Thesis) Culmination of graduate student study resulting in a final major design or technology effort with associated research paper and oral defense of project before a selected faculty committee. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR811
Makeup III
A full year course for Makeup majors, stressing advanced practice in all aspects of makeup. Practical experience in the design and execution of makeup and wigs under production circumstances. Credit Level: G. Credit Hrs: 4.00

16THPR812
Makeup III
A full year course for Makeup majors, stressing advanced practice in all aspects of makeup. Practical experience in the design and execution of makeup and wigs under production circumstances. Credit Level: G. Credit Hrs: 4.00

16THPR813
Makeup III
A full year course for Makeup majors, stressing advanced practice in all aspects of makeup. Practical experience in the design and execution of makeup and wigs under production circumstances. Credit Level: G. Credit Hrs: 4.00

16THPR814
Stage Lighting II
An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Credit Level: G. Credit Hrs: 3.00

16THPR815
Stage Lighting II
An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing a design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Credit Level: G. Credit Hrs: 3.00

16THPR816
Stage Lighting II
An introduction to the principles and techniques of stage lighting design for drama, opera, and musical theater productions. Emphasis on developing a design concept for a show, and on mastering basic design skills, including the choice of lighting angles and equipment, layout of area lighting, and selection of color for a show. Simple theoretical light plots augmented by lab work and design assignments for workshop and black box productions. Credit Level: G. Credit Hrs: 3.00

16THPR817
Technical Production Lab and Crew
Practical production crew work in the execution of designs for opera, musical theater, drama, or dance. May be repeated for credit. Prereq.: Grad. standing. Credit Level: G. Credit Hrs: 3.00

16THPR818
Technical Production Lab and Crew
Practical production crew work in the execution of designs for opera, musical theater, drama, or dance. May be repeated for credit. Credit Level: G. Credit Hrs: 3.00

16THPR819
Technical Production Lab and Crew
Practical production crew work in the execution of designs for opera, musical theater, drama, or dance. May be repeated for credit. Credit Level: G. Credit Hrs: 3.00

16THPR820
Design/Research Project: Makeup
Culmination of student study resulting in makeup design for major production, with associated research paper and sketches, and oral presentation and defense of project before selected faculty committee. Credit Level: G. Credit Hrs: 3.00-6.00

H=University Honors course.
Theater Production

16THPR821
Stage Lighting III
Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Credit Level: G. Credit Hrs: 6.00

16THPR822
Stage Lighting III
Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Credit Level: G. Credit Hrs: 6.00

16THPR823
Stage Lighting III
Advanced design course for MFA students majoring in theatrical lighting design. Concentration on theoretical and practical design projects for complex drama, opera, and musical theater productions. Weekly tutorial sessions and large scale departmental productions. Credit Level: G. Credit Hrs: 6.00

16THPR824
Stage Management II
Roundtable discussion of problems facing the lead stage manager on a production. Alternate perspectives to be offered by guest stage managers, directors, designers and other theatre professionals. Additional study of Actors Equity Association (musicals and dramas) and American Guild of Musical Artists (operas and dance) rulebooks as pertains to running rehearsals and performances. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR825
Stage Management II
Continuation of 16 THPR 824. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR826
Stage Management II
Full year course for MFA students majoring in stage management. Emphasis on practical aspects of organizing auditions, running technical and dress rehearsals, and conducting production meetings, and maintaining a show during a long performance run. Investigation of stage manager’s function in touring a show, working on an original script, or in dealing with other theatrical unions. Assignments throughout year as stage manager for small or medium scale departmental productions. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR827
Stage Management III
Emphasis on communication and management functions of the stage manager during production process, and investigation of Production Stage Manager’s responsibilities, including scheduling and budget layout. Pre-requisite of 16 THPR 826; must be taken in sequence. Majors only. BFA by permission only. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR828
Stage Management III
Continuation of 16 THPR 827. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR829
Stage Management III
Continuation of 16 THPR 828. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR830
Design/Research Project: Stage Lighting
Culmination of MFA study resulting in actual lighting design for major theatrical production, as well as documentation of all research and a portfolio presentation of all associated paperwork, including written script analysis, design concept, cue synopsis, instrument schedules, hook-up and repatch sheets, stage lighting section, and front-of-house presentation and defense of the organizational and administrative techniques used in the production. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR831
Technical Production II
Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. Credit Level: G. Credit Hrs: 3.00

16THPR832
Technical Production II
Problem-solving for the theater technician. Specialized construction and rigging techniques, technical production management, cost and time estimates, inventory control, theater safety. Credit Level: G. Credit Hrs: 3.00

16THPR833
Technical Production III
Project oriented class for second year MFA candidates in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments of major responsibility on actual productions. All projects to be accompanied with appropriate documentation. Credit Level: G. Credit Hrs: 3.00

16THPR834
Technical Production III
Project oriented class for second year MFA candidates in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments of major responsibility on actual productions. All projects to be accompanied with appropriate documentation. Prereq: 16THPR834. Credit Level: G. Credit Hrs: 3.00

16THPR835
Technical Production III
Project oriented class for second year MFA candidates in Technical Production. Projects may be theoretical research in the areas of new materials and technologies or may be assignments of major responsibility on actual productions. All projects to be accompanied with appropriate documentation. Credit Level: G. Credit Hrs: 3.00

16THPR838
Stage Lighting IV
Course designed for the second year MFA lighting design student with an emphasis on large scaled theatrical productions as well as on union exam preparation. Credit Level: G. Credit Hrs: 6.00

16THPR839
Sound Design Practicum
Supervised sound design and assistant assignments for OMDA productions. Credit Level: G. Credit Hrs: 1.00-4.00

16THPR840
Production Research Project: Stage Management
Culmination of study for MFA candidate in Stage Management. Project includes production assignments Stage Manager to large scale opera or musical theater production, along with all associated paperwork, a production journal, a working prompt book during the show, and a finished production book after the fact. Work will culminate with an oral presentation and defense of the organizational and administrative techniques used in the production. Credit Level: G. Credit Hrs: 3.00-6.00

H=University Honors course.
16THPR841  
Stage Design I  
Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Credit Level: G. Credit Hrs: 3.00

16THPR842  
Stage Design I  
Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Credit Level: G. Credit Hrs: 3.00

16THPR843  
Stage Design I  
Beginning projects explore dramatic space, form, image and theme. Intermediate projects script analysis, period research, and dramatic themes working with sketches, renderings, ground plans, and models. Styles range from simple realism to expressive symbolism. Play, opera, and film scripts are assigned. Guest directors participate. Credit Level: G. Credit Hrs: 3.00

16THPR844  
Stage Design II  
Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. Credit Level: G. Credit Hrs: 3.00

16THPR845  
Stage Design II  
Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. Credit Level: G. Credit Hrs: 3.00

16THPR846  
Stage Design II  
Advanced stage design projects for opera, musicals, drama, dance, and special presentations. Design of multiple sets explored. Special design assignments of studio or major productions. Credit Level: G. Credit Hrs: 3.00

16THPR847  
Drafting for the Theater II  
Advanced board drafting projects assigned in accordance with student's prior drafting experience and skill level. Group and individual lessons. Actual production drafting projects assigned where feasible. Credit Level: G. Credit Hrs: 2.00

16THPR848  
Drafting for the Theater II  
Advanced board drafting projects assigned in accordance with student's prior drafting experience and skill level. Group and individual lessons. Actual production drafting projects assigned where feasible. Credit Level: G. Credit Hrs: 2.00

16THPR849  
Drafting for the Theater III  
Advanced drafting projects assigned per individual student needs and current production assignments. Prereq; 16THPR848. Credit Level: G. Credit Hrs: 2.00

16THPR850  
Drafting Theater III  
Advanced drafting projects assigned per individual student needs and current production assignments. Prereq; 16THPR849. Credit Level: G. Credit Hrs: 2.00

16THPR851  
Makeup IV  
Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assisting for major productions. Credit Level: G. Credit Hrs: 4.00

16THPR852  
Makeup IV  
Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assisting for major productions. Credit Level: G. Credit Hrs: 4.00

16THPR853  
Makeup IV  
Continuing advancement in all aspects of makeup. Project on producing foam latex appliances. Design and execution of major productions. Assisting for major productions. Credit Level: G. Credit Hrs: 4.00

16THPR854  
Graduate Sound Seminar I  
Graduate level course involving weekly updates on design/production issues, operation of the sound department and presentation on equipment or special techniques. Designs will be presented and critiqued. Load ins, strikes and troubleshooting of systems for all main stage productions will provide practical experience with sound system operations. Guest artists will be invited to meet with students whenever possible and onsite visits will be arranged to provide professional contacts and experience. Credit Level: G. Credit Hrs: 3.00

16THPR855  
Graduate Sound Seminar I  
A continuation of 16THPR854. Credit Level: G. Credit Hrs: 3.00

16THPR856  
Graduate Sound Seminar II  
A continuation of 16THPR855. Credit Level: G. Credit Hrs: 3.00

16THPR857  
Graduate Sound Seminar II  
A continuation of 16THPR856. Credit Level: G. Credit Hrs: 3.00

16THPR858  
Graduate Sound Seminar II  
A continuation of 16THPR857. Credit Level: G. Credit Hrs: 3.00

16THPR859  
Graduate Sound Seminar II  
A continuation of 16THPR858. Credit Level: G. Credit Hrs: 3.00

16THPR860  
Production/Research Project: Technical Production  
Culmination of student study resulting in technical direction of a major production with associated portfolio of construction drawings and other appropriate documentation. An oral presentation and defense of the methods, techniques, and materials used will be presented to a committee of selected faculty. Credit Level: G. Credit Hrs: 3.00-6.00

16THPR861  
Costume Design I  
History of costume from prehistoric times to contemporary society integrated with selected period costume design projects from dramatic literature. Emphasis on research, design basics, figure drawing, and beginning rendering. Credit Level: G. Credit Hrs: 4.00

16THPR862  
Costume Design I  
Continuation of 16THPR861. Credit Level: G. Credit Hrs: 4.00

16THPR863  
Costume Design I  
Continuation of 16THPR862. Credit Level: G. Credit Hrs: 4.00
**Theater Production**

16THPR864  
Costume Design II  
Project designing for drama, musical theatre, opera and dance with emphasis on character development through costume. Production processes, intermediate rendering techniques, design assisting. Possible design assignments of studio productions may be apart of course work. Production book development. Portfolio Preparation Credit Level: G. Credit Hrs: 4.00

16THPR865  
Costume Design II  
Continuation of 16 THPR 864. Prereq: 16THPR864. Credit Level: G. Credit Hrs: 4.00

16THPR866  
Costume Design II  
Continuation of 16 THPR 865. Credit Level: G. Credit Hrs: 4.00

16THPR867  
Costume Design III  
Advanced projects in designing costumes for drama, opera, musical theater, and dance with emphasis on developing production concepts. Advanced rendering techniques, design assisting. Possible design assignments. Credit Level: G. Credit Hrs: 4.00

16THPR868  
Costume Design III  
Advanced projects in designing costumes for drama, opera, musical theater, and dance with emphasis on developing production concepts. Advanced rendering techniques, design assisting. Possible design assignments. Credit Level: G. Credit Hrs: 4.00

16THPR869  
Costume Design III  
Advanced projects in designing costumes for drama, opera, musical theater, and dance with emphasis on developing production concepts. Advanced rendering techniques, design assisting. Credit Level: G. Credit Hrs: 4.00

16THPR870  
Stage Design for Directors  
Directors will interact from their perspective with advanced design projects created by design majors -- a necessary area of understanding for both. Credit Level: G. Credit Hrs: 3.00

16THPR871  
Stage Design Lab and Crew  
Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. Credit Level: G. Credit Hrs: 2.00

16THPR872  
Stage Design Lab and Crew  
Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical and dramatic productions. May be repeated for credit. Credit Level: G. Credit Hrs: 2.00

16THPR873  
Stage Design Lab and Crew  
Practical production crew work in the layout, painting, set decoration, and dressing of major opera, musical, and dramatic productions. May be repeated for credit. Credit Level: G. Credit Hrs: 2.00

16THPR874  
Design/Research Project in Sound Design  
Design and implementation of a fully realized main stage OMDA production including a monograph detailing the process. Credit Level: G. Credit Hrs: 6.00

16THPR877  
Makeup V  

16THPR878  
Makeup V  

16THPR879  
Makeup V  

16THPR880  
Scene Painting II  
A one quarter course in the painting of intermediate level projects from scaled elevations. Rendering of mouldings, paneling, drapery, three dimensional objects, foliage, and landscapes in studio. Paint clothes required. Credit Level: G. Credit Hrs: 2.00

16THPR881  
Design Research Project: Stage Design  
The culminating research, design, and execution in project form (for actual production assignment) of all necessary sketches, renderings, models, working drawings, and paint elevations, plus property sketches or drawings, fabric and upholstery samples, for an opera, musical, or drama of sufficient aesthetic value and weight as determined by instructor. Project shall be accompanied by a written argument of the conceptualization approach. Project will be Credit Level: G. Credit Hrs: 3.00-6.00

16THPR882  
Advanced Costume Crafts  
Advanced studies and projects in costume crafts. Topics may include millinery, fabric modification, masks, jewelry, fabric manipulation, etc. Non-traditional materials and techniques may be investigated. Production assignments as part of class may be possible. Offered every quarter. May be repeated. Permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR883  
Draping III  
Draping III is an advanced patterning course designed to introduce the student to the leadership skills that are required of a professional draper. The student draper will be assigned an appropriate collection of garments to create patterns for one or more realized productions during that quarter. The student draper will be expected to create patterns, organize and lead an assigned team of assistants through the production of the assigned garments from start to finish. Prerequisites: Draping II, Pattern Draping II. Pre/Co-requisite: Advanced Costume Construction or permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR884  
Pattern Drafting III  
Pattern Drafting III is an advanced patterning course designed to further the student's skills by introducing the element of full realized production deadlines. The advanced student will be assigned an appropriate collection of garments to pattern and construct for one or more realized productions during that quarter. Prerequisites: Pattern Drafting II, Draping II, Tailoring II. Pre/Co-requisite: Advanced Costume Construction or permission of instructor. Credit Level: G. Credit Hrs: 4.00

16THPR885  
Tailoring III  
The core work will include an in depth study of men's historical coats and vest, creating historical patterns and tailoring historical patterns. Pattern development will include mock-ups, test fitting, cutting and tailoring a minimum of one complete men's historical garment. Prerequisites: tailoring II, Pattern Drafting II, Draping II, Advanced Costume Construction or Permission of Instructor. Credit Level: G. Credit Hrs: 4.00

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H=University Honors course.
Trombone

16TRB100 Trombone Major Study

16TRB110 Trombone Concentration
First-year study for trombone students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRB210 Trombone Concentration
Second-year study for trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRB300 Trombone Major Study

16TRB310 Trombone Concentration
Third-year study for trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRB320 Trombone Secondary
Third-year secondary study in trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16TRB400 Trombone Major Study

16TRB410 Trombone Concentration
Fourth-year study for trombone students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16TRB420 Trombone Secondary
Fourth-year secondary study in trombone as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00
Trombone

16TRB500
Trombone Major
Additional study for undergraduate trombone majors who have completed the basic degree requirements; offered for undergraduate and graduate trombone majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16TRB510
Trombone Concentration
Additional study in trombone for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level trombone students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16TRB530
Trombone Elective
Nonrequired private study in trombone; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16TRB531
Trombone Pedagogy
A study of the techniques involved in teaching applied trombone lessons. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16TRB560
Independent Study
In-depth study of a topic related to the trombone, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16TRB570
Trombone Orchestral Repertoire
Survey of prominent excerpts for trombone. Students play excerpts in a section format and discuss issues such as style, articulation, and intonation. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00

16TRB680
Trombone Choir
A homogeneous ensemble of trombones designed to prepare and perform literature for eight or more players. BoK: FA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16TRB800
Trombone Graduate Major Study
Preparation of two recital programs, one to be performed in public. Repertoire of a high level of difficulty suited to the needs of the individual student. Passages from the orchestral repertoire. Credit Level: G. Credit Hrs: 4.00

16TRB810
Trombone Concentration
Master’s level study for students accepted for a cognate in trombone performance. Credit Level: G. Credit Hrs: 2.00

16TRB820
Trombone Secondary
Secondary study in trombone for master’s degree students. Credit Level: G. Credit Hrs: 1.00

16TRB850
Artist Diploma in Trombone
First-year major study in trombone for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16TRB855
Artist Diploma Recital
Public performance by an artist diploma student in trombone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16TRB880
Master Recital
Public performance by a master’s degree student in trombone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16TRB895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16TRB899
Master’s Candidacy
Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16TRB900
Trombone Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16TRB910
Trombone Concentration
Doctoral level study for students accepted for a cognate in trombone performance. Credit Level: G. Credit Hrs: 2.00

16TRB920
Trombone Secondary
Secondary study in trombone for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16TRB930
Trombone Elective
Nonrequired private study in trombone for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16TRB950
Artist Diploma in Trombone
Second-year major study in trombone for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16TRB960
Trombone Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16TRB970
Doctoral Recital
Public performance by a doctoral student in trombone of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TRB990
Lecture Recital
Combined public lecture and performance of a selected topic in the trombone repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TRB990
DMA Document
Research and preparation of the final written project for the DMA degree in trombone; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Trumpet

16TRP100
Trumpet Major Study
Technical material: selected studies from Arban -- Conservatory Method, studies by Clarke, Herbst, Schlossberg; transposition studies by Williams and Sachse. Passages from the orchestral repertoire; solos by Balay, Barat, Goeyens, Ropartz, and others. BoK: FA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
### Trumpet Concentration

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>16TRP110</td>
<td>Trumpet Concentration</td>
<td>First-year study for trumpet students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
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<tr>
<td>16TRP120</td>
<td>Trumpet Secondary</td>
<td>First-year secondary study in trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16TRP200</td>
<td>Trumpet Major Study</td>
<td>Continuation of studies from Arban -- Conservatory Method, studies by Brandt, Balay, Laurent, and Maxime-Alphonse, transposition studies by Williams, Schaze, and Bordogni. Passages from the orchestral repertoire; solos by Bozza, Dallier, Goedicke, HuÖ, and others. BoK: FA. Credit Level: U. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16TRP310</td>
<td>Trumpet Concentration</td>
<td>Second-year study for trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16TRP320</td>
<td>Trumpet Secondary</td>
<td>Second-year secondary study in trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16TRP340</td>
<td>Trumpet Major Study</td>
<td>Continuation of transcription studies and orchestral passages. Etudes by Chalier; solo material by Latham, Kennan, Risager, Hindemith, Stevens and others. BoK: FA. Credit Level: U. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16TRP341</td>
<td>Trumpet Concentration</td>
<td>Third-year study for trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16TRP360</td>
<td>Trumpet Secondary</td>
<td>Third-year secondary study in trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16TRP400</td>
<td>Trumpet Major Study</td>
<td>Continuation of orchestral excerpts. Etudes by Bitsch, Bozza, and Tomasi; solo material by Casterade, Wal-Berg, Bohrstedt, Telemann, Honegger, and others. Preparation of Senior Recital. BoK: FA. Credit Level: U. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16TRP410</td>
<td>Trumpet Concentration</td>
<td>Fourth-year study for trumpet students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16TRP420</td>
<td>Trumpet Secondary</td>
<td>Fourth-year secondary study in trumpet as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
</tr>
<tr>
<td>16TRP500</td>
<td>Trumpet Major</td>
<td>Additional study for undergraduate trumpet majors who have completed the basic degree requirements; offered for undergraduate and graduate trumpet majors during the Summer Session. BoK: FA. Credit Level: U. G. Credit Hrs: 4.00</td>
</tr>
<tr>
<td>16TRP510</td>
<td>Trumpet Concentration</td>
<td>Additional study in trumpet for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level trumpet students during the Summer Session. BoK: FA. Credit Level: U. G. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>16TRP530</td>
<td>Trumpet Elective</td>
<td>Nonrequired private study in trumpet; requires permission of the department and the college. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-2.00</td>
</tr>
<tr>
<td>16TRP560</td>
<td>Trumpet Orchestral Excerpt</td>
<td>Intense study of trumpet chamber music and orchestral repertoire of selected works. BoK: FA. Credit Level: U. G. Credit Hrs: 4.00</td>
</tr>
</tbody>
</table>

### Trumpet

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>16TRP895</td>
<td>Practicum</td>
<td>Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00</td>
<td>G</td>
<td>1.00</td>
</tr>
<tr>
<td>16TRP900</td>
<td>Master's Candidy</td>
<td>Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00</td>
<td>G</td>
<td>1.00</td>
</tr>
<tr>
<td>16TRP910</td>
<td>Trumpet Doctoral Major Study</td>
<td>Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>16TRP920</td>
<td>Trumpet Concentration</td>
<td>Doctoral level study for students accepted for a cognate in trumpet performance. Credit Level: G. Credit Hrs: 2.00</td>
<td>G</td>
<td>2.00</td>
</tr>
<tr>
<td>16TRP930</td>
<td>Trumpet Elective</td>
<td>Nonrequired private study in trumpet for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00</td>
<td>G</td>
<td>1.00-2.00</td>
</tr>
<tr>
<td>16TRP950</td>
<td>Artist Diploma in Trumpet</td>
<td>Second-year major study in trumpet for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00</td>
<td>G</td>
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</tr>
<tr>
<td>16TRP960</td>
<td>Trumpet Concerto</td>
<td>Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00</td>
<td>G</td>
<td>2.00</td>
</tr>
<tr>
<td>16TRP970</td>
<td>Doctoral Recital</td>
<td>Public performance by a doctoral student in trumpet of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>16TRP980</td>
<td>Lecture Recital</td>
<td>Combined public lecture and performance of a selected topic in the trumpet repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>16TRP990</td>
<td>DMA Document</td>
<td>Research and preparation of the final written project for the DMA degree in trumpet; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00</td>
<td>G</td>
<td>1.00-15.00</td>
</tr>
</tbody>
</table>

### Tuba

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>16TUBA100</td>
<td>Tuba Major Study</td>
<td>Technical requirements: study of major and minor scales; selected studies for the refinement of basic techniques. Orchestral and band repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
<td>U</td>
<td>3.00</td>
</tr>
<tr>
<td>16TUBA110</td>
<td>Tuba Concentration</td>
<td>First-year study for tuba students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
<td>U</td>
<td>2.00</td>
</tr>
<tr>
<td>16TUBA120</td>
<td>Tuba Secondary</td>
<td>First-year secondary study in tuba as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
<td>U</td>
<td>1.00</td>
</tr>
<tr>
<td>16TUBA200</td>
<td>Tuba Major Study</td>
<td>Further advanced technical studies and compositions for the instrument covering different styles. Continuation of orchestral and band repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00</td>
<td>U</td>
<td>4.00</td>
</tr>
<tr>
<td>16TUBA210</td>
<td>Tuba Concentration</td>
<td>Second-year study for tuba students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
<td>U</td>
<td>2.00</td>
</tr>
<tr>
<td>16TUBA220</td>
<td>Tuba Secondary</td>
<td>Second-year secondary study in tuba as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
<td>U</td>
<td>1.00</td>
</tr>
<tr>
<td>16TUBA300</td>
<td>Tuba Major Study</td>
<td>Third-year study for tuba students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
<td>U</td>
<td>2.00</td>
</tr>
<tr>
<td>16TUBA310</td>
<td>Tuba Concentration</td>
<td>Fourth-year study for tuba students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
<td>U</td>
<td>2.00</td>
</tr>
<tr>
<td>16TUBA400</td>
<td>Tuba Major Study</td>
<td>Advanced technical studies. Continuation of orchestral and band repertoire. Preparation of Senior Recital including compositions of different styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00</td>
<td>U</td>
<td>4.00</td>
</tr>
<tr>
<td>16TUBA410</td>
<td>Tuba Concentration</td>
<td>Fourth-year study for tuba students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00</td>
<td>U</td>
<td>2.00</td>
</tr>
<tr>
<td>16TUBA420</td>
<td>Tuba Secondary</td>
<td>Fourth-year secondary study in tuba as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00</td>
<td>U</td>
<td>1.00</td>
</tr>
<tr>
<td>16TUBA500</td>
<td>Tuba Major</td>
<td>Additional study for undergraduate tuba majors who have completed the basic degree requirements; offered for undergraduate and graduate tuba majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00</td>
<td>U, G</td>
<td>4.00</td>
</tr>
<tr>
<td>16TUBA510</td>
<td>Tuba Concentration</td>
<td>Additional study in tuba for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level tuba students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00</td>
<td>U, G</td>
<td>2.00</td>
</tr>
<tr>
<td>16TUBA530</td>
<td>Tuba Elective</td>
<td>Nonrequired private study in tuba; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00</td>
<td>U, G</td>
<td>1.00-2.00</td>
</tr>
</tbody>
</table>

### Notes
- H=University Honors course.
- BoK (Breadth of Knowledge) Coding.
- DC: Diversity & Culture.
- EC: English composition.
- FA: Fine Arts.
- HP: Historical Perspectives.
- HU: Humanities.
- LT: Literature.
- NS: Natural Sciences.
- QR: Quantitative Reasoning.
- SE: Social & Ethical Issues.
- SS: Social Sciences.
Tuba

16TUBA560
Independent Study
In-depth study of a topic related to the tuba, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U. G. Credit Hrs: 1.00-15.00

16TUBA800
Tuba Graduate Major Study
Selected studies for continued refinement of previous skills. Preparation of two recital programs including repertoire of a high level of difficulty suited to the needs of the individual student. Orchestral and band repertoire. Credit Level: G. Credit Hrs: 4.00

16TUBA810
Tuba Concentration
Master's level study for students accepted for a cognate in tuba performance. Credit Level: G. Credit Hrs: 2.00

16TUBA820
Tuba Secondary
Secondary study in tuba for master's degree students. Credit Level: G. Credit Hrs: 1.00

16TUBA850
Artist Diploma in Tuba
First-year major study in tuba for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16TUBA855
Artist Diploma Recital
Public performance by an artist diploma student in tuba of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16TUBA880
Master Recital
Public performance by a master's degree student in tuba of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16TUBA895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16TUBA899
Master's Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16TUBA900
Tuba Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16TUBA910
Tuba Concentration
Doctoral level study for students accepted for a cognate in tuba performance. Credit Level: G. Credit Hrs: 2.00

16TUBA920
Tuba Secondary
Secondary study in tuba for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16TUBA930
Tuba Elective
Nonrequired private study in tuba for doctoral students: requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16TUBA950
Artist Diploma in Tuba
Second-year major study in tuba for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16TUBA960
Tuba Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16TUBA970
Doctoral Recital
Public performance by a doctoral student in tuba of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TUBA980
Lecture Recital
Combined public lecture and performance of a selected topic in the tuba repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16TUBA990
DMA Document
Research and preparation of the final written project for the DMA degree in tuba; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Violoncello

16VC100
Violoncello Major Study
Technical facility in scales, arpeggios, and violoncello studies. Sonatas and concerti of the Baroque, Classical or Romantic repertoire. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VC110
Violoncello Concentration
First-year study for cello students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VC120
Violoncello Secondary
First-year study for cello students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VC200
Violoncello Major Study

16VC210
Violoncello Concentration
Second-year study for cello students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VC220
Violoncello Secondary
Second-year study in cello as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VC300
Violoncello Major Study
Violoncello studies. Baroque, Classical, and Romantic concerti and sonatas and other compositions for the instrument. Contemporary music and pieces from the Chamber Music Literature. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VC310
Violoncello Concentration
Third-year study for cello students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VC320
Violoncello Secondary
Third-year secondary study in cello as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

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H=University Honors course.
Violoncello

16VC400
Violoncello Major Study
Advanced technical studies. Preparation of Senior Recital including compositions of all major styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VC410
Violoncello Concentration
Fourth-year study for cello students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VC420
Violoncello Secondary
Fourth-year secondary study in cello as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VC500
Violoncello Major
Additional study for undergraduate cello majors who have completed the basic degree requirements; offered for undergraduate and graduate cello majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16VC510
Violoncello Concentration
Additional study in cello for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level cello students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VC530
Violoncello Elective
Nonrequired private study in cello, requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16VC560
Independent Study
In-depth study of a topic related to the violoncello, selected by the student in consultation with a member of the faculty. Permission of instructor and Division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16VC800
Violoncello Graduate Major Study
Preparation of two recital programs, one to be performed in public. Graduate repertoire includes the major violoncello literature in all styles and some chamber music. Credit Level: G. Credit Hrs: 4.00

16VC810
Violoncello Concentration
Master's level study for students accepted for a cognate in violoncello performance. Credit Level: G. Credit Hrs: 2.00

16VC820
Violoncello Secondary
Secondary study in violoncello for master's degree students. Credit Level: G. Credit Hrs: 1.00

16VC830
Violoncello Elective
Nonrequired private study in violoncello for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16VC850
Artist Diploma in Violoncello
First-year major study in violoncello for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VC855
Artist Diploma Recital
Public performance by an artist diploma student in violoncello of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16VC880
Master Recital
Public performance by a master's degree student in violoncello of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16VC900
Violoncello Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16VC910
Violoncello Concentration
Doctoral level study for students accepted for a cognate in violoncello performance. Credit Level: G. Credit Hrs: 2.00

16VC920
Violoncello Secondary
Second-year study in violoncello for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16VC930
Violoncello Elective
Nonrequired private study in violoncello for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16VC950
Artist Diploma in Violoncello
Second-year major study in violoncello for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VC960
Cello Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16VC970
Doctoral Recital
Public performance by a doctoral student in violoncello of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VC980
Lecture Recital
Combined public lecture and performance of a selected topic in the violoncello repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VC990
DMA Document
Research and preparation of the final written project for the DMA degree in violoncello; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Viola

16VLA100
Viola Major Study
Technical facility in scales, arpeggios, and viola studies. Sonatas and concerti of the Baroque, Classical, or Romantic repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16VLA110
Viola Concentration
First-year study for viola students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

H=University Honors course.
Viola

16VLA110
Viola Concentration
First-year study for viola students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLA120
Viola Secondary
First-year secondary study in viola as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLA200
Viola Major Study
Viola studies. Baroque, Classical, and Romantic concerti, sonatas, and other compositions for the instrument. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLA210
Viola Concentration
Second-year study for viola students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLA220
Viola Secondary
Second-year secondary study in viola as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLA300
Viola Major Study
Third-year study for viola students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLA320
Viola Secondary
Third-year secondary study in viola as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLA400
Viola Major Study
Fourth-year study for viola student in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLA410
Viola Concentration
Fourth-year secondary study in viola as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLA500
Viola Major
Additional study for undergraduate viola majors who have completed the basic degree requirements; offered for undergraduate and graduate viola majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16VLA510
Viola Concentration
Additional study in viola for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level viola students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLA530
Viola Elective
Nonrequired private study in viola; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16VLA560
Independent Study
In-depth study of a topic related to the viola, selected by the student in consultation with a number of the faculty. Permission of instructor and division. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-12.00

16VLA580
Viola Master Class
Master class for all viola students; preparations for recitals, competitions, auditions. BoK: NA. Credit Level: U. Credit Hrs: 1.00

16VLA630
Special Topics in Viola
Varying topics will be addressed. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

16VLA680
Viola Master Class
Weekly master class for Viola students. BoK: NA. Credit Level: U, G. Credit Hrs: 0.00-1.00

16VLA800
Viola Graduate Major Study
Preparation of two recital programs, one to be performed in public. Graduate repertoire includes the major viola literature in all major styles and some chamber music. Credit Level: G. Credit Hrs: 4.00

16VLA810
Viola Concentration
Master's level study for students accepted for a cognate in viola performance. Credit Level: G. Credit Hrs: 2.00

16VLA820
Viola Secondary
Master's level study for students accepted for a cognate in viola performance. Credit Level: G. Credit Hrs: 1.00

16VLA850
Artist Diploma in Viola
First-year major study in viola for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VLA855
Artist Diploma Recital
Public performance by an artist diploma student in viola of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16VLA880
Master Recital
Public performance by a master's degree student in viola of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16VLA895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16VLA899
Master's Candidacy
Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16VLA900
Viola Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
Viola
16VLA910
Viola Concentration
Doctoral level study for students accepted for a cognate in viola performance. Credit Level: G. Credit Hrs: 2.00

16VLA920
Viola Secondary
Secondary study in viola for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16VLA930
Viola Elective
Nonrequired private study in viola for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16VLA950
Artist Diploma in Viola
Second-year major study in viola for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VLA960
Viola Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16VLA970
Doctoral Recital
Public performance by a doctoral student in viola of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VLA980
Lecture Recital
Combined public lecture and performance of a selected topic in the viola repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VLA990
DMA Document
Research and preparation of the final written project for the DMA degree in viola; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Violin
16VLN100
Violin Major Study
Technical facility in scales, arpeggios, and violin studies. Sonatas and concerti of the Baroque, Classical, or Romantic repertoire. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16VLN110
Violin Concentration
First-year study for violin students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLN120
Violin Secondary
First-year secondary study in violin as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLN200
Violin Major Study
Violin studies. Baroque, Classical, and Romantic concerti and sonatas, and other compositions for the instrument. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLN210
Violin Concentration
Second-year study for violin students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLN220
Violin Secondary
Second-year secondary study in violin as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLN300
Violin Major Study
Violin studies. Baroque, Classical, and Romantic concerti, sonatas, and other compositions for the instrument. Contemporary music and pieces from the Chamber Music Literature. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLN310
Violin Concentration
Third-year study for violin students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLN320
Violin Secondary
Third-year secondary study in violin as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLN400
Violin Major Study
Advanced technical studies. Preparation of Senior Recital including compositions of all major styles. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VLN410
Violin Concentration
Fourth-year study for violin students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VLN420
Violin Secondary
Fourth-year secondary study in violin as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VLN500
Violin Major
Additional study for undergraduate violin majors who have completed the basic degree requirements; offered for undergraduate and graduate violin majors during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

16VLN510
Violin Concentration
Additional study in violin for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level violin students during the Summer Session, depending on faculty availability. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLN530
Violin Elective
Nonrequired private study in violin; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

16VLN531
String Pedagogy
Basic principles of string pedagogy, including standard etude literature. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLN532
String Pedagogy
Basic principles of string pedagogy, including standard etude literature. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

16VLN533
String Pedagogy
Basic principles of string pedagogy, including standard etude literature. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

H=University Honors course.
Violin Concentration
16VLN810
Violin Concentration
Master's level study for students accepted for a cognate in violin performance. Credit Level: G. Credit Hrs: 2.00

16VLN820
Violin Secondary
Secondary study in violin for master's degree students. Credit Level: G. Credit Hrs: 1.00

16VLN850
Artist Diploma in Violin
First-year major study in violin for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VLN855
Artist Diploma Recital
Public performance by an artist diploma student in violin of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16VLN880
Master Recital
Public performance by a master's degree student in violin of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16VLN895
Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16VLN899
Master's Candidacy
Retention of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16VLN900
Violin Doctoral Major Study
Selected studies for continued refinement of previous skills. Repertoire to be selected from works of advanced technical difficulty. Preparation of required doctoral recitals. Credit Level: G. Credit Hrs: 4.00

16VLN910
Violin Concentration
Doctoral level study for students accepted for a cognate in violin performance. Credit Level: G. Credit Hrs: 2.00

16VLN920
Violin Secondary
Secondary study in violin for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16VLN930
Violin Elective
Nonrequired private study in violin for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16VLN950
Artist Diploma in Violin
Second-year major study in violin for students accepted into the artist diploma program. Credit Level: G. Credit Hrs: 6.00

16VLN960
Violin Concerto
Public performance of a concerto with one of the major performing ensembles. Credit Level: G. Credit Hrs: 2.00

16VLN970
Doctoral Recital
Public performance by a doctoral student in violin of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VLN980
Lecture Recital
Combined public lecture and performance of a selected topic in the violin repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

Voice
16VOIC100
Voice Major Study
Technical requirements: proper command of posture, carriage, and breathing; improved ability in diction, resonance, and variety of dynamics. Vocalises by Marzo, Spicker, Vaccai, and others. At least ten new songs, five to be sung from memory; at least one song in English and one in Italian. Folk songs, old Italian arie, simple oratorio arias, German Lieder. BoK: FA. Credit Level: U. Credit Hrs: 3.00

16VOIC101
Language Orientation for Singers
The notation of the sounds of Italian, German and French in singing, using the International Phonetic Alphabet. Written and oral presentation. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC102
Language Orientation for Singers
The notation of the sounds of Italian, German, and French in singing, using the International Phonetic Alphabet. Written and oral presentation. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC103
Language Orientation for Singers
The notation of the sounds of Italian, German, and French in singing, using the International Phonetic Alphabet. Written and oral presentation. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC110
Voice Concentration
First-year study for voice students in the B.A. program in music. BoK: FA. Credit Level: U. Credit Hrs: 2.00

H=University Honors course.
Voice

16VOIC120

Voice Secondary
First-year secondary student in voice as required for specific majors.
BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC140

Musical Theater Vocal Study
First-year applied music lessons in voice for musical theater majors.
BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC200

Voice Major Study
Technical requirements: continuation of above, improvement in dynamics and range, studies in colorature. German Lieder and French art songs; simple operatic arias; continued study of English songs. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VOIC201

Sophomore Seminar
A continuation of the skills and information of the International Phonetic Alphabet (IPA) from the freshman-level Language Orientation; application of these tools and concepts to the music along with harmonic and textual analysis. Prereq: 16VOIC103. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC202

Sophomore Seminar
Continuation of 201. Prereq: 16VOIC201. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC203

Sophomore Seminar
Continuation of 16 VOIC 201, 202. Prereq: 16VOIC202. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC210

Voice Concentration
Second-year study for voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC220

Voice Secondary
Second-year secondary study in voice as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC240

Musical Theater Vocal Study
Second-year applied music lessons in voice for musical theater majors. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC300

Voice Major Study
Technical requirements: stability and consistent quality in the upper and lower vocal registers. Continuation of more advanced German Lieder and French art songs; appropriate operatic arias; contemporary songs; preparation of an Italian secco recitative. BoK: FA. Credit Level: U. Credit Hrs: 4.00

16VOIC310

Voice Concentration
Third-year study for voice students in the B.A. program in music or in the music education program. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC320

Voice Secondary
Third-year secondary study in voice as required for specific majors. BoK: FA. Credit Level: U. Credit Hrs: 1.00

16VOIC331

Vocal Repertoire
Solo song repertoire of European countries, Russia, and the United States from the sixteenth century to the present. Interpretation, style, and program building. Emphasis on performance. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC330

Undergraduate Vocal Coaching
Individual vocal coaching for undergraduate voice majors with members of the opera/accompanying faculty. BoK: NA. Credit Level: U. Credit Hrs: 1.00-2.00

16VOIC410

Introduction to Opera: Performance Basics
This class is a prerequisite for 16 VOIC 432 and 433. It is recommended that it be taken in the freshman or sophomore year. The class consists of basic warm-up exercises, movement exercises, gesture, stage basics, master classes, and attention to performance department. The final exam will be an informal class performance. Course can be repeated. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC420

Introduction to Opera: Opera Production
Admission to this class is by audition or invitation only. Students selected will perform, prepare, or coordinate the performance for the undergraduate opera project. This course can be repeated. Prereq: 16VOIC431. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC430

Musical Theater Vocal Study
Third-year applied music lessons in voice for musical theater majors. BoK: FA. Credit Level: U. Credit Hrs: 2.00

16VOIC431

Vocal Repertoire
Solo song repertoire of European countries, Russia, and the United States from the sixteenth century to the present. Interpretation, style, and program building. Emphasis on performance. BoK: FA. Credit Level: U. Credit Hrs: 2.00
Voice Elective
Non-required private study in voice; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00

Voice Pedagogy 16VOIC531

Voice Pedagogy 16VOIC532

Voice Pedagogy 16VOIC533

Music Theater Voice Study 16VOIC540
Additional study in voice for undergraduate musical theater majors. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Oratorio 16VOIC541
A study of style and performance practices of oratorio and cantata. Emphasis on Renaissance and Baroque. Examples from Machaut, Carissimi, Scarlatti, Schütz, Bach, and Handel. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Oratorio 16VOIC542
A study of style and performance practices of oratorio and cantata. Continuation of Baroque, Late Baroque and Romantic. Examples from Haydn, Brahms, Mendelssohn, and Berlioz. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Oratorio 16VOIC543
A study of style and performance practices of oratorio and cantata. Continuation of Romantic and Modern. Examples from Verdi, Honegger, Walton, Orff, and Britten. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Voice Major 16VOIC500
Additional study for undergraduate voice majors who have completed the basic degree requirements; offered for undergraduate and graduate voice majors during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 4.00

Voice Concentration 16VOIC510
Additional study in voice for undergraduate students at the concentration level who have completed the basic degree requirements; offered to all concentration level voice students during the Summer Session. BoK: FA. Credit Level: U, G. Credit Hrs: 2.00

Voice Concentration 16VOIC530
Non-required private study in voice; requires permission of the department and the college. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-2.00
Voice

16VOIC820 Voice Secondary
Secondary study in voice for master’s degree students. Credit Level: G. Credit Hrs: 1.00

16VOIC831 Voice Pedagogy
Advanced study of pedagogical methods and practices. Credit Level: G. Credit Hrs: 2.00

16VOIC832 Voice Pedagogy
Advanced study of pedagogical methods and practices. Credit Level: G. Credit Hrs: 2.00

16VOIC833 Voice Pedagogy
Advanced study of pedagogical methods and practices. Credit Level: G. Credit Hrs: 2.00

16VOIC840 Vocal Coaching
Individualized coaching in repertoire and languages for master’s degree students in voice and artist diploma students in opera. Credit Level: G. Credit Hrs: 1.00-3.00

16VOIC850 Artist Diploma in Voice
First-year major study in voice for students accepted into the artist diploma program in opera or voice. Credit Level: G. Credit Hrs: 4.00

16VOIC855 Artist Diploma Recital
Public performance by an artist diploma student in voice of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 2.00

16VOIC880 Master Recital
Public performance by a master’s degree student in voice of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 1.00-2.00

16VOIC895 Practicum
Practical experience in the professional world. Credit Level: G. Credit Hrs: 1.00

16VOIC899 Master’s Candidacy
Retainment of eligibility for graduation. Credit Level: G. Credit Hrs: 1.00

16VOIC900 Voice Doctoral Major Study
Private study for doctoral students in voice. Preparation of required recitals. Credit Level: G. Credit Hrs: 4.00

16VOIC910 Voice Concentration
Doctoral-level study for students accepted for a cognate in voice performance. Credit Level: G. Credit Hrs: 2.00

16VOIC920 Voice Secondary
Secondary study in voice for doctoral level students. Credit Level: G. Credit Hrs: 1.00

16VOIC930 Voice Elective
Nonrequired private study in voice for doctoral students; requires permission of the department and the college. Credit Level: G. Credit Hrs: 1.00-2.00

16VOIC931 Seminar in Vocal Pedagogy
An extension of Graduate Vocal Pedagogy with in-depth readings from the literature of vocal pedagogy leading to term papers based on the readings. Prereq: 16VOIC831, 16VOIC832, 16VOIC833. Credit Level: G. Credit Hrs: 2.00

16VOIC932 Seminar in Vocal Pedagogy
An extension of Graduate Vocal Pedagogy with in-depth readings from the literature of vocal pedagogy leading to term papers based on the readings. Prereq: 16VOIC831, 16VOIC832, 16VOIC833. Credit Level: G. Credit Hrs: 2.00

16VOIC933 Seminar in Vocal Pedagogy
An extension of Graduate Vocal Pedagogy with in-depth readings from the literature of vocal pedagogy leading to term papers based on the readings. Prereq: 16VOIC831, 16VOIC832, 16VOIC833. Credit Level: G. Credit Hrs: 2.00

16VOIC940 Vocal Coaching
Individualized coaching in repertoire and languages for doctoral students in voice. Credit Level: G. Credit Hrs: 1.00-3.00

16VOIC950 Artist Diploma in Voice
Second-year major study in voice for students accepted into the artist diploma program in opera or voice. Credit Level: G. Credit Hrs: 4.00

16VOIC960 Opera Performance
Public performance of an opera role in a main stage production. Credit Level: G. Credit Hrs: 1.00-3.00

16VOIC970 Doctoral Recital
Public performance by a doctoral student in voice of selected compositions; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VOIC980 Lecture Recital
Combined public lecture and performance of a selected topic in the voice repertoire; approved and graded by the faculty. Credit Level: G. Credit Hrs: 3.00

16VOIC990 DMA Document
Research and preparation of the final written project for the DMA degree in voice; topic to be approved and supervised by the faculty. Credit Level: G. Credit Hrs: 1.00-15.00

H=University Honors course.
Architecture

23ARCH202
Architecture Studio 2
Continuing investigation of a variety of architectural design methodologies through a series of design exercises. Prereq: 23SAID201. BoK: FA, SS. Credit Level: U. Credit Hrs: 6.00

23ARCH217
Social Context of Architecture
Assumptions, principles, and applications of social theory in the analysis of architecture. BoK: DC. Credit Level: U. Credit Hrs: 3.00

23ARCH277
Structures Lecture I
Introduction to statically determinant structural systems, structural materials and loads. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23ARCH301
Architecture Studio 3
This studio exercises fundamental architectural skills and knowledge through the design of a medium-size building. The studio aims to engage students in all aspects of building design, from site reconnaissance and analysis to the formal integration of structural and mechanical considerations. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23ARCH307
Computer Theory
Exploration of the impact of computer technology on architecture, including exposure to various computer programs. Prereq: 23SAID294. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH311
Architecture Theory Studio -- Rhythm
This studio is focused on the exploration of a number of formal variables which are frequently manipulated in architectural expression, particularly rhythm, sequence, and scale. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH312
Architecture Theory Studio -- Symbols
An exploration into the potential for symbolic expression of architectural form. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH313
Architecture Theory Studio -- Geometry
The study of various geometric aspects as they influence architectural form. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH314
Architecture Theory Seminar -- Formalism
The history and theory of formal concepts; exploration of the history of theories, techniques and works of architecture which have as their primary concern the production of visually pleasing and/or significant form. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH315
Theory Lab Seminar: Geometry
The study of various geometric aspects as they influence architectural form. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH316
Architecture Theory Seminar -- Utopia
Exploration of the literature and philosophy of utopian concepts and the development of models for their analysis and comparison. BoK: HU.
23ARCH327
History/Theory/Criticism: Critiques of Modern Architecture
Emphasis is given to individuals, ideas, movements, and works within their cultural, political, and artistic contexts. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARCH327H
History/Theory/Criticism: Critiques of Modern Architecture
Historical analysis of developments in American, European, and Japanese architecture since the cultural upheavals of the 1960s. Emphasis is given to individuals, ideas, movements, and works within their cultural, political, and artistic contexts. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARCH328
Architectural History Seminar: Mannerism
An exploration of the primary themes of sixteenth century Italian architecture and their importance to the contemporary scene. BoK: HU. Credit Level: U. Credit Hrs: 3.00

23ARCH331
Professional Practice Design Lab
The exploration of selected architectural issues through the design of a building. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH332
Professional Role Studio: Client

23ARCH333
Competition Studio: Lyceum
This studio aims to use design to create and sustain a critical dialogue that vigorously questions the premises of one or two competition programs. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH338
Professional Role Seminar
Specific topics on the management of an architectural practice. Emphasis on working with architectural firms and their clients. Prereq: 23ARCH202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH347
Urban and Cultural Landscapes in America
This course surveys and interprets the evolution of America's everyday rural and urban landscapes: settlements, highways, farms, factories, stores, cemeteries, city districts and entertainment areas. It encourages students to read the landscape as a record of planning proposals, a reflection of past and present social needs, and technological interventions, all of which have left their imprint on the site. Prereq: 23ARCH202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH351
Landscape Studio: Site Design
Problems emphasizing ways the natural landscape patterns influence proposed building programs: design, development, and detail in circulation, layout, grading-drainage, lighting, and site furnishing. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH352
Landscape Studio: Ecology
The exploration of issues of site and building ecology and land use through the design of an architectural project. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH354
Landscape Lecture: Site Systems
Study of natural and artificial systems which influence site planning, design, and development: landforms, earthwork, circulation, universal design, and landscape materials including plants, pavement, water, and site furnishings. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23ARCH355
Landscape Seminar: Land Development
An overview of the land development process, including feasibility and site analysis studies, phases of design and development, traditional and regenerative land uses, land use zoning, regulations, and ordinances, public participation, and design team collaboration. BoK: SE. Credit Level: U. Credit Hrs: 3.00

23ARCH356
Landscape Seminar: Sustainable Development
This seminar explores the relationship between global environmental issues and the theory and practice of architecture to provide a better understanding of what is architectural about sustainable development. The emphasis is on establishing a basis for effective decision-making in both the design and construction phases of development that is responsive to an ecologically based value system, is consistent with sustainable development, and generates value. BoK: SE, SS. Credit Level: U. Credit Hrs: 3.00

23ARCH357
Site Systems
An overview of land systems, including stormwater management, vehicular and pedestrian circulation, and sustainable strategies for land development. Prereq: 23ARCH202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH371
Structures Studio: Wood Detailing
Design implications of wood as a structural system. Prereq: 23ARCH301. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH372
Structures Studio: Analysis
Individual design problems involving unusual structural problems and/or systems. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH377
Structures Lecture 3
Indeterminate structures, reinforced concrete structural systems, planar structures, wind and seismic loads. Prereq: 23ARCH278. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23ARCH381
Construction Studio: Digital
This studio uses sophisticated computer-aided design tools to investigate and propose design solutions. Prereq: 23ARCH202. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23ARCH384
Construction Seminar -- Skyscraper
Investigation of specific issues in high-rise construction practice. Prereq: 23SAID268. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH385
Construction Seminar -- Digital Investigations
The development and use of sophisticated computer-aided design tools and the Component-Based Paradigm (a product-level approach) for building design and construction. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARCH387
Environmental Technology 3
Introduction to communication systems, electrical systems, plumbing systems, movement systems, and fire and health safety used to service the built environment. Prereq: 23SAID288. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23ARCH390
Independent Studies
Individual study in collaboration with a faculty member on a subject or in a manner beyond that which is available within the curriculum. Prereq.: 2.5 cumulative GPA; instructor's approval, adviser's approval, and the Department Student Advisory Committee's approval of a written
### Architecture

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>23ARCH390</td>
<td>Independent Studies proposal submitted the quarter before beginning of the</td>
<td>1.00-3.00</td>
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<tr>
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<td>intended quarter of study. BoK: NA. Credit Level: U.</td>
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<tr>
<td>23ARCH406</td>
<td>Computer Seminar -- Computer-Aided Design Development of computer capabilities</td>
<td>3.00</td>
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<td>for use in architecture. BoK: NS. Credit Level: U.</td>
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<td>23ARCH411</td>
<td>Architecture Theory Studio -- Value Concern for the possibility of value in</td>
<td>4.00</td>
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<td>architecture; investigation of cultural traditions, architectural values and</td>
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<td>modes of value evocation.</td>
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<td>23ARCH412</td>
<td>Architecture Theory Studio -- Visiting Professor An investigation of</td>
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<td>architectural design focusing on the unique theoretical perspectives of a</td>
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<td>BoK: FA. Credit Level: U.</td>
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<tr>
<td>23ARCH413</td>
<td>Architecture Design Studio Advanced studies in Basic Design. Prereq:</td>
<td>4.00</td>
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<td>23ARCH202. BoK: FA.</td>
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<td>Credit Level: U.</td>
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<td>23ARCH417</td>
<td>History/Theory/Criticism: Beginnings of Modern Architectural Theory A</td>
<td>3.00</td>
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<tr>
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<td>critical interpretation of the foundations of modern architectural theory</td>
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<td>from a European perspective through direct encounters with primary</td>
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<td></td>
<td>theoretical texts. Prereq: 23ARCH217.</td>
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<td>BoK: HU. Credit Level: U.</td>
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<td>23ARCH417H</td>
<td>History/Theory/Criticism: Beginnings of Modern Architectural Theory A</td>
<td>3.00</td>
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<td>critical interpretation of the foundations of modern architectural theory</td>
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<td>from a European perspective through direct encounters with primary</td>
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<td>theoretical texts. Prereq: 23ARCH217.</td>
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<td>BoK: HU. Credit Level: U.</td>
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<tr>
<td>23ARCH422</td>
<td>Architectural History Studio: Typology The selection of precedents according</td>
<td>4.00</td>
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<td>to type, place, or principle; the role of influence and transformation in the</td>
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<td>design process, and the prospects for a connectional or rooted architecture in</td>
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<tr>
<td>23ARCH427</td>
<td>History of the Skyscraper Historical survey of the evolution of the American</td>
<td>3.00</td>
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<td>skyscraper from the Civil War to the present. BoK: FA., HP. Credit Level: U.</td>
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<td>Credit Level: U.</td>
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<tr>
<td>23ARCH427H</td>
<td>History/Theory/Criticism: Critiques of Modern Architecture Historical</td>
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<tr>
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<td>analysis of developments in American, European, and Japanese architecture</td>
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<td></td>
<td>since the cultural upheavals of the 1960s. Emphasis is given to individuals,</td>
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<td></td>
<td>ideas, movements, and works. within their cultural, political, and artistics</td>
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<tr>
<td></td>
<td>contexts. Prereq: 23SAID229. BoK: HP.</td>
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<td></td>
<td>Credit Level: U.</td>
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<tr>
<td>23ARCH434</td>
<td>Professional Role Seminar: Real Estate The examination of the role of the</td>
<td>3.00</td>
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<tr>
<td></td>
<td>architect and the creation of economic value in an uncertain environment in</td>
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<tr>
<td></td>
<td>the context of real estate development projects. BoK: QR. Credit Level: U.</td>
<td></td>
</tr>
<tr>
<td>23ARCH453</td>
<td>Urban Design Studio Consideration of urban design issues on the development of</td>
<td>4.00</td>
</tr>
</tbody>
</table>

#### College of Design, Architecture, Art and Planning

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>23ARCH516</td>
<td>Architectural Theory Seminar -- Understanding Pueblo Architecture</td>
<td>3.00</td>
</tr>
<tr>
<td>23ARCH534</td>
<td>Professional Role Seminar -- Case Studies</td>
<td>3.00</td>
</tr>
<tr>
<td>23ARCH541</td>
<td>Portsmouth Exchange</td>
<td>1.00</td>
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<tr>
<td>23ARCH542</td>
<td>Portsmouth Exchange</td>
<td>3.00</td>
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<tr>
<td>23ARCH544</td>
<td>Cultural Approaches to Architecture</td>
<td>3.00</td>
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<tr>
<td>23ARCH546</td>
<td>Architecture Theory Seminar: Place and Dwelling</td>
<td>3.00</td>
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<tr>
<td>23ARCH547</td>
<td>Universal Design</td>
<td>3.00</td>
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<tr>
<td>23ARCH548</td>
<td>Building Evaluation</td>
<td>3.00</td>
</tr>
<tr>
<td>23ARCH590</td>
<td>Independent Studies</td>
<td>6.00</td>
</tr>
<tr>
<td>23ARCH601</td>
<td>Structure/Environment/Construction Studio One</td>
<td>6.00</td>
</tr>
<tr>
<td>23ARCH602</td>
<td>Structure/Environment/Construction Studio Two</td>
<td>6.00</td>
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<tr>
<td>23ARCH604</td>
<td>Environmental Studies Seminar -- Senior Mentor</td>
<td>3.00</td>
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<tr>
<td>23ARCH605</td>
<td>Environmental Studies Seminar -- Senior Mentor</td>
<td>3.00</td>
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<tr>
<td>23ARCH614</td>
<td>Senior Seminar I</td>
<td>3.00</td>
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<tr>
<td>23ARCH615</td>
<td>Senior Seminar II</td>
<td>3.00</td>
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<tr>
<td>23ARCH617</td>
<td>History/Theory/Criticism: Beginnings of Modern Architecture Theory</td>
<td>3.00</td>
</tr>
<tr>
<td>23ARCH625</td>
<td>Techniques of Historic Preservation</td>
<td>3.00</td>
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<tr>
<td>23ARCH627</td>
<td>History/Theory/Criticism: Critiques of Modern Architecture History</td>
<td>3.00</td>
</tr>
<tr>
<td>23ARCH628</td>
<td>Historic Preservation Lecture</td>
<td>3.00</td>
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<tr>
<td>23ARCH637</td>
<td>Professional Practice Lecture</td>
<td>3.00</td>
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</tbody>
</table>

H=University Honors course.
Architecture

23ARCH667  
Structure/Environment/Construction Technology 1  
In-depth study of issues pertaining to structures, environmental systems, and construction as they relate to the sequence in SEC Studio 1. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

23ARCH668  
Structure/Environment/Construction Technology 2  
In-depth study of issues pertaining to structures, environmental systems, and construction as they relate to the sequence of SEC Studio 2. Prereq: 23ARCH601, 23ARCH667. Coreq: 23ARCH602. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

23ARCH677  
Structures 4  
Analysis and design of wood, steel, and masonry structural systems. Prereq: 23ARCH377. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

23ARCH690  
Independent Study  
A graduate and/or undergraduate level pass/fail independent study course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

23ARCH701  
Studies in Architecture  
Independent studies in architectural or related research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

23ARCH702  
Studies in Architecture  
Independent studies in architectural or related research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

23ARCH703  
Studies in Architecture  
Independent studies in architectural or related research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

23ARCH705  
Seminar in Theory of Architecture  
Introduction to the theoretical discourse of architecture. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH706  
Seminar in Theory of Architecture  
Consideration of architectural understanding through the investigation of philosophical thinking and processes. Prereq: 23ARCH705. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH710  
Thesis Research  
Introduction to thesis research methods, including literature analysis and the writing of abstracts, research proposals, and reports. Introduction to applied research methods commonly used in studying the interaction between the designed/built environment and the users of that environment to prepare Master of Architecture students for E-coop research projects and case studies. Perm of Department. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH715  
Introduction to Research Methods  
Introduction to various models of research methods with application to architectural and related research. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARCH501  
Pre-Texts for Architecture  
This foundation design lab exposes students to architecture’s pre-texts that include literary narratives, film, ritual and cultural contexts as a bridge between diverse intellectual territories and architecture. This course introduces a selection of seminal modern and contemporary architectural buildings and their intellectual and formal situation/context as pre-texts and design paradigms. This course will cultivate connections between diverse bodies of information, and the ability to posit consequential relationships for the production of architecture. This course seeks to cultivate a vision for architecture that sponsors operative links between the discipline of architecture and disciplines outside of architecture. Lectures, research, are followed with graphic communication to posit and test the efficacy of ideas and information. Credit Level: G. Credit Hrs: 4.00

23ARCH502  
Graduate Studio: Order and Tectonics in Architecture  
This foundation studio marries organizational logics to tectonic culture as the starting point for architectural form vocabulary. The tectonic is proposed as an organizational order that stems directly from construction to include material, structural, and technical principles. This will be addressed on several scales, and in a conceptual manner. Selected texts and discussion accompany and inform the design work. This studio is structured for collaboration with the skills and history courses Prereq: 23ARCH501. Coreq: 23ARCH512, 23ARCH527. Credit Level: G. Credit Hrs: 6.00

23ARCH503  
Graduate Studio: The Civic Realm and the Context of Public Space  
In this discipline-focused studio, students gain experience with the architecture of buildings and the traditional core competencies including the instruments of proportion, organization, programming, structure and tectonics. The complexity of an institution’s program (20-60,000 sf) is tempered and focused by spatial structures (architectural promenades), the development of a good interior public room, technological imperatives, culture and context. Structural and environmental technologies play a significant role. This studio is structured for collaboration with the history and technology classes, thus creating an integrative studio experience. Prereq: 23ARCH502. Coreq: 23ARCH528, 23ARCH626, 23ARCH777. Credit Level: G. Credit Hrs: 6.00

23ARCH504  
Graduate Studio: Housing and Community  
In this discipline-focused studio students gain experience with the architecture of buildings and the traditional core competencies including the instruments of proportion, organization, programming, structure and tectonics. The socio-cultural context is an essential pre-text to housing and has defined the rich and varied history of housing developments in America and Europe. The studio will consider multiple-unit housing on an urban site that responds to a strong cultural context. Research and analysis will form a basis for the studio. This studio is structured for collaboration with the history and technology classes, thus creating an integrative studio experience. Prereq: 23ARCH503. Credit Level: G. Credit Hrs: 6.00

23ARCH511  
Architecture Design Communication  
This foundation design lab introduces two-dimensional and three-dimensional representation skills that facilitate the exploration and generation of design intention. Digital and analog drawings and models are tools for the conception and development of design, and not just an illustration or confirmation of a design conclusion. Students are introduced to the dynamics of, and differences between diagramming, iteration, indexing, and collage as instrumental processes of design intelligence. This course introduces adobe illustrator, and photoshop and other digital applications that support the activities of the summer. This course collaborates with the Pre-texts course and the Technetics course. Credit Level: G. Credit Hrs: 4.00

23ARCH512  
Graduate Representation Skills and Composition  
This course will explore the methods, techniques, tools, and critical principles of graphic representation in architecture and interior design, with special emphasis on drawing, diagramming, modeling, and one- and two-point perspective, developed and applied in the context of varied graphic media and digital software. The course is structured to work in close collaboration with the studio. Prereq: 23ARCH501. Credit Hrs: 3.00-6.00
Architecture

23ARCH512
Graduate Representation Skills and Composition
Level: G. Credit Hrs: 3.00

23ARCH527
History/History/Criticism: Architecture and Its History
An introduction to works of architecture and their role in establishing formal-spatial order and social-cultural meaning, and to the enduring capacity of past works (precedents) to influence later generations, later designers, and the discipline as a whole. Works and places from antiquity and the middle ages, worldwide, are featured, along with a selection of exemplary contemporary designs illustrating current movements. Credit Level: G. Credit Hrs: 3.00

23ARCH528
History/Theory/Criticism: The Classical Tradition and Its Legacies
A review of key, influential architectural movements, works, and texts, from the Renaissance through the nineteenth century. Emphasis is given to the formal, social, and urbanistic implications of design, the understanding of architecture and a disciplined "language" that structures ideas at all levels from the city to the detail. Credit Level: G. Credit Hrs: 3.00

23ARCH529
History/Theory/Criticism: Modern Architecture
A review of key, influential architectural movements, works, and texts from the mid-19th century to the 1960s. Emphasis is given to the mainstream of the Modern movement and its relationship to the changing social, cultural, and political context of the industrializing West. Credit Level: G. Credit Hrs: 3.00

23ARCH567
Introduction to Issues in Technology
A study of issues pertaining to the phenomena of, and potent dependent relationships among, climate, construction, structures and environmental systems in architecture. Case-study research and site visits, along with class lectures characterize this course. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH591
Graduate Accelerated Computer Skills
This lab focuses on digital applications and the skills needed to facilitate the exploration and generation of design intention. Digital applications are tools for the conception and development of design, and not just illustration and confirmation of a design conclusion. Students will use the Adobe suite as well as three-dimensional modeling when appropriate. This course is structured to work in close collaboration with the studio. Coreq: 23ARCH501, 23ARCH511. Credit Level: G. Credit Hrs: 3.00

23ARCH704
Seminar in Theory of Architecture
Introduction to the theoretical discourse of architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH707
Graduate Accelerated Studio
This rigorous, daylong immersion studio introduces students new to the study of architecture to its basic principles, techniques, and critical vocabulary. Students proceed from fundamental two- and three-dimensional composition to complex building design and representation. Credit Level: G. Credit Hrs: 9.00

23ARCH708
Graduate Accelerated Skills
This lab, which supplements to Graduate Accelerated Studio, introduces students new to the study of architecture to principles of graphic representation including, but not limited to, line weight and contour, figure/ground analysis, diagramming, sketch notation, ideation, rendering orthographic drawings, basic principles of light and color, spatial rendering, and perspective delineation. Coreq: 23ARCH707. Credit Level: G. Credit Hrs: 6.00

23ARCH713
Graduate Elective Studio
This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH714
Postmodern Aesthetics
This seminar introduces Heidegger's deconstruction of the aesthetic tradition as a point of departure in the formulation of a non-frivolous account of postmodern culture, with particular regard to art and architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH716
Contemporary Architectural Theory
Advanced, critical review of the basic issues in architectural discourse, with emphasis on the aims, methods, and contexts of theoretical understanding in general and in our disciplines. Such fundamental notions as historicity, analogy, ethics, aesthetics, artistic engagement, urbanism, utility, and the life-world are introduced through critical readings of leading theoretical scholars of the past quarter century. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH717
Pre-thesis Research
Analysis of literary sources as a means to architectural research and interpretation. Credit Level: G. Credit Hrs: 3.00

23ARCH718
Special Topics in Architectural Theory
This elective seminar will offer selected readings related to special topics in architectural theory. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH719
Special Topics in Architectural Representation
This elective seminar will offer selected readings related to architectural representation. Students will undertake the production of writing and research related to the course topic. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH723
Graduate Elective Studio
This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH725
Graduate Topic Seminar
This elective course will offer selected readings related to particular areas of concentration within the graduate curriculum. Students will undertake the production of writing and research related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 3.00

23ARCH727
History/Theory/Criticism: Contemporary Theory and History
A review of the continuation of the modern movement in the last forty years, and of the critiques of the same. The diverse strands of architectural production of the last two generations are examined in light of the prevailing post-modern cultural mindset and challenging social, economic, and environmental conditions. Perm of Department. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
This interdisciplinary course focuses on the complex relationships between the activities and psychological dimensions of dwelling and the architectural and representational images which serve them. Credit Level: G. Credit Hrs: 3.00

23ARCH734
eCoop Seminar 1
This course introduces the case study research method as a form of critical engagement with issues in professional practice. Students use historical examples to develop their own research itineraries in advance of their two-quarter graduate co-op placements. In consultation with academic and professional practice faculty, students formulate projects that situate their research within the general requirements and activities of particular firms and practices. Credit Level: G. Credit Hrs: 3.00

23ARCH735
eCoop Seminar 2
Students returning from their two-quarter graduate co-op experiences present and discuss the results of research projects developed in cooperation with faculty advisors, professional practice faculty, and employers. Students then produce final research documents for inclusion in the case study library of the Center for the Study of Practice. Credit Level: G. Credit Hrs: 3.00

23ARCH736
Special Topics in Professional Practice
This elective seminar will offer selected readings related to professional practice. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH738
Introduction to Programming
Introduction to the methods used for programming as a part of the pre-design process phase of any design project. This course will support the development of thesis projects. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH739
Special Topics in Interior Design
This elective seminar will offer selected readings related to special topics in interior design. Students will undertake the production of writing and research related to the course topic. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH743
Graduate Elective Studio
This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH744
Special Topics in Urban Design
This elective seminar will offer selected readings related to urban design. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH745
Graduate Topic Seminar
This elective course will offer selected readings related to particular areas of concentration within the graduate curriculum. Students will undertake the production of writing and research related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 3.00

23ARCH749
House and Home
This interdisciplinary course focuses on the complex relationships between the activities and psychological dimensions of dwelling and the physical spaces and representational images which serve them. Credit Level: G. Credit Hrs: 3.00

Architectural Design
23ARCH749
House and Home
Level: G. Credit Hrs: 3.00

23ARCH753
Graduate Elective Studio
This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH754
Special Topics in Landscape Architecture
This elective seminar will offer selected readings related to landscape architecture. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH755
Graduate Topic Seminar
This elective seminar will offer selected readings related to particular areas of concentration within the graduate curriculum. Students will undertake the production of writing and research related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 3.00

23ARCH763
Graduate Elective Studio
This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH764
Special Topics in Building Construction
This elective seminar will offer selected readings related to building construction and details. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH767
Contemporary Construction
This lecture course undertakes the comprehensive study of issues related to the design and production of the building enclosure. Students will examine the interdependency among aesthetic, technical, material, and economic aspects of a given design condition. Special attention is given to case study presentations of failures in varieties of building envelope systems and their causes. Credit Level: G. Credit Hrs: 3.00

23ARCH773
Graduate Elective Studio
This elective studio will offer an intense exploration of issues related to particular areas of concentration within the graduate curriculum. Students will undertake projects related to buildings and technology, interior environments, building economics and professional practice, urban environments, preservation, and combinations of these. Credit Level: G. Credit Hrs: 6.00

23ARCH774
Special Topics in Architectural Structures
This elective seminar will offer selected readings related to structural systems and architectural engineering. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH784
Special Topics in Environmental Technology
This elective seminar will offer selected readings related to environmental technology. Students will undertake the production of

H=University Honors course.
Architecture

23ARCH784
Special Topics in Environmental Technology
writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH787
Contemporary Environmental Technologies
This course undertakes the comprehensive study of issues related to the design of buildings in relation to environmental systems. Students will examine the interdependency among the economic, aesthetic, technical, material, and energy aspects of a given design situation. Perm of Department. Credit Level: G. Credit Hrs: 3.00

23ARCH790
Independent Study
Individual study in collaboration with a faculty member on a subject or in a manner beyond that which is available within the curriculum. Perm of Department. Credit Level: G. Credit Hrs: 1.00-5.00

23ARCH791
Accelerated Computer Skills
Introductory course in computer graphics for Master of Architecture students entering with a non-design undergraduate degree. Topics include graphic layout, two- and three-dimensional representation, and web design. Credit Level: G. Credit Hrs: 3.00

23ARCH794
Special Topics in Digital Media
This elective seminar will offer selected readings related to computer applications and advanced digital media. Students will undertake the production of writing and research related to the course topic. Credit Level: G. Credit Hrs: 3.00

23ARCH800
Graduate Option Quarter
A non-credit, pass/fail course used for tracking graduate students who are off campus on during the required Option Quarter. Credit Level: G. Credit Hrs: 0.00

23ARCH805
Design Theory Seminar
Close readings of the major treatises of architectural theory of the modern period. Credit Level: G. Credit Hrs: 3.00

23ARCH806
Design Theory Seminar
Consideration of issues of form, method, technology, and design since 1960. Credit Level: G. Credit Hrs: 3.00

23ARCH814
Thesis Colloquium
The thesis colloquium provides a disciplined setting for the formal presentation and discussion of works in progress by members of the thesis studio, with special emphasis on the theoretical and critical context of the work. Weekly, public presentations, in conformance with criteria for presentation established by the graduate faculty, will be followed by questions and discussion aimed at supporting the development and progress of individual projects. Coreq: 23ARCH801. Credit Level: G. Credit Hrs: 3.00

23ARCH815
Thesis Colloquium
The thesis colloquium provides a disciplined setting for the formal presentation and discussion of works in progress by members of the thesis studio, with special emphasis on the theoretical and critical context of the work. Weekly, public presentations, in conformance with criteria for presentation established by the graduate faculty, will be followed by questions and discussion aimed at supporting the development and progress of individual projects. Coreq: 23ARCH802. Credit Level: G. Credit Hrs: 3.00

23ARCH816
Thesis Colloquium
The Thesis Colloquium provides a disciplined setting for informal presentations and peer discussions of students’ thesis ideas and their development. The colloquium, integrated with thesis studio work, also features presentations by faculty members, group discussions of shared topic areas, field trips, and individual conferences with thesis faculty. Prereq: 23ARCH815. Credit Level: G. Credit Hrs: 3.00

23ARCH888
Master of Science in Architecture Thesis
Thesis research and writing. Credit Level: G. Credit Hrs: 1.00-9.00

23ARCH889
Master of Science in Architecture Thesis
Thesis research and writing. Credit Level: G. Credit Hrs: 1.00-9.00

23ARCH890
Independent Study
Individual study in collaboration with a faculty member on a subject or in a manner beyond that which is available within the curriculum. Credit Level: G. Credit Hrs: 1.00-5.00

23ARCH891
Teaching and Research Colloquium
Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH892
Teaching and Research Colloquium
Further investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH893
Teaching and Research Colloquium
Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH894
Teaching and Research Colloquium
Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH895
Teaching and Research Colloquium
Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH896
Teaching and Research Colloquium
Investigation of methods and topics of research and teaching in architecture. Credit Level: G. Credit Hrs: 3.00

23ARCH901
Thesis Studio
The thesis is a major project of research and/or creative work that extends professional knowledge and awareness surrounding the design and production of cities, buildings, and interior environments. Designed as a three-quarter sequence, students explore historical, theoretical, and technical issues related to a specific area of inquiry, leading to the development and production of a program of research or design, including the presentation of preliminary documents, contextual analyses and findings on which students will base future work. Students document these findings in conformance with criteria established by the graduate faculty, then develop and produce projects in accordance with previously identified topics and themes. Finally, students refine and complete these projects, in conformance with criteria for presentation established by the graduate faculty. Thesis Studio 23ARCH901 is the multi-quarter course name and number; grading is assigned as SP or UP, satisfactory progress or unsatisfactory progress, until the final quarter of completion. Credit Level: G. Credit Hrs: 6.00

H=University Honors course.

Architecture

23ARCH912
Thesis Precedents and Process
This course works in tandem with 23ARCH901 Thesis Studio and focuses on the significant research efforts related to exploring and defining the student's inquiry and process of creative work. Research may include analysis of typology and precedent; programming; site analysis; social, cultural and economic contexts; literature searches; and digital experimentation. Significant to this effort is the documentation, manifestation and representation of the research and the conclusions drawn. Credit Level: G. Credit Hrs: 3.00

23ARCH913
Thesis Presentation
This course works in tandem with 23ARCH901 Thesis Studio and focuses on the significant effort related to the configuring and assembling of the final presentation of the thesis project work. It is well understood that thesis arguments are made through the work itself, and the graphic and verbal manner in which the student presents this content is a significant enterprise. Credit Level: G. Credit Hrs: 3.00

Art Appreciation

23ARTA101
Ascendancy of 20th Century American Paintings
Ascendancy of 20th Century American Paintings Survey of 20th century American paintings in conjunction with basic art vocabulary and a structured guide to art interpretation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARTA105
Family as Represented in Art
Family as Represented in Art Survey of images, 16th - 20th century from Europe, America, and Africa, depicting representation of family in conjunction with basic art vocabulary and a structured guide to art interpretation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARTA109
Women Painters, 12th-20th Centuries
Women Painters, 12th - 20th Centuries Survey of European and American women painters 12th - 20th centuries in conjunction with basic art vocabulary and a structured guide to art interpretation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARTA201
Drawing I
Observation and interpretation of varied subject matter: still life landscape and living forms. Charcoal, pencil, and chalk; other media. Perspective is introduced. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA202
Drawing II
Continuation of 30FAA201. This class is designed to teach students with no prior drawing experience as well as the advanced student. The basic drawing techniques using line, shape, value, perspective, and composition will be explored. Learning "to see" is the objective of this class. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA203
Drawing III
Continuation of 30FAA202. Observation and interpretation of varied subject matter: still life landscape and living forms. Charcoal, pencil, and chalk; other media. Perspective is introduced. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA211
Painting I
Study of various techniques. Structure and color application. Varied subject matter. Oil and/or water soluble media. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA212
Painting II
Continuation of 30FAA211. Study of various techniques. Structure and color application. Varied subject matter. Oil and/or water soluble media. BoK: FA. Credit Level: U. Credit Hrs: 1.00

Art Appreciation

23ARTA212
Painting I
BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA213
Painting II
Continuation of 30FAA212. Designed to provide both aesthetic and practical use of water based techniques and skills to beginners and advanced students as well. The precept that art is an essential tool to the student's emotional growth and stresses the importance of studio courses of art imagery and techniques. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA227
Life Drawing
A study of human anatomy and the figure using a variety of drawing media in the context of fine art. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA228
Life Drawing
Continuation of 30FAA227. A study of human anatomy and the figure using a variety of drawing media in the context of fine art. BoK: FA. Credit Level: U. Credit Hrs: 1.00

23ARTA251
Archival Materials For the Artist
This is an introductory class for the working artist, student or collector who wants to know more about the range of materials used in making artwork and what constitutes archival quality. Pass/Fail. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23ARTA252
Collage as an Art Form
This course will explore a variety of techniques and materials used in collage. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23ARTA286
American Art: 1776-1900
Painting, sculpture, and architecture in the United States from the Revolution to 1890. Transfer Module. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23ARTA287
American Art: 1900-1945
From Ashcan School through abstract expressionism. Transfer Module. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23ARTA288
Contemporary Art
Study of art forms which have emerged since 1945. Transfer Module. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23ARTA289
Symbolist Movement in Art
Themes and theories of Symbolism. Emphasis on leading turn-of-the-century artists such as Gaugin, Hodler, Munch, Ensor, Redon, Moreau, Klimt, and others. Transfer Module. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23ARTA290
Current Art Scene
Fourth Street and beyond. The ideas, issues, and aesthetics behind the arts on view in Cincinnati galleries, museums, and studios. Course will include some visits to galleries or studios, and meeting with practicing artists, curators, and critics. BoK: FA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Art Appreciation

23ARTA348  Myth and Symbolism in Religious Art
A discussion of religious artworks and their meaning from many
religions and time periods. This course will show a commonality
between the visual iconography of various religious groups and
illustrate how art and religion are closely linked both as ceremonial tools
and demonstrations of one's devoutness. Prereq: 30RELG101. BoK:
FA. Credit Level: U. Credit Hrs: 3.00

23ARTA379  Sculpture Foundry
A course dealing with the basic techniques of casting art objects in
aluminum or bronze. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23ARTA497  Independent Study
Please complete and submit an Independent Study Application Form
which is available from the College Registration Office. BoK: NA. Credit
Level: U. Credit Hrs: 1.00-12.00

23ARTA498  Independent Study
Please complete and submit an Independent Study Application Form available
from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23ARTA499  Independent Study
Please complete and submit an Independent Application Form available
from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23ARTA532  Art Interpretation
Literal and metaphorical interpretation of 20th century American
paintings. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23ARTA577  Thinking: Visual Component
Brain research and cognitive studies provide the background for
studying the two different ways the brain processes information and for
studying ways to improve visualizing capability in art-related or in non-
art related endeavors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23ARTA580  Socialization of Values: The Visual Component
The role of beliefs and values in the socialization process as they
relate to the created visual environment. Major characteristics of high
and popular culture, their publics and creators will be explored in light of
social forces politics, economics, and the subliminal power of media.
BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

23ARTA776  Generic Research Methods
Introductory course in thinking about research: purposes,
problems, research questions, hypotheses, and conjectures, kinds of
research methods available, and underlying philosophies. Credit Level:
G. Credit Hrs: 3.00

Art Education

23ARTE287  Independent Studies
Individual project in collaboration with a faculty member on
subject of mutual interest; based on written proposal. BoK: NA. Credit
Level: U. Credit Hrs: 1.00-3.00

23ARTE289  Independent Studies
Individual project in collaboration with a faculty member on
subject of mutual interest; based on written proposal. BoK: NA. Credit
Level: U. Credit Hrs: 1.00-3.00

23ARTE387  Independent Studies
Individual project in collaboration with a faculty member on
subject of mutual interest; based on written proposal. BoK: NA. Credit
Level: U. Credit Hrs: 1.00-3.00

23ARTE389  Independent Studies
Individual project in collaboration with a faculty member on
subject of mutual interest; based on written proposal. BoK: NA. Credit
Level: U. Credit Hrs: 1.00-3.00

23ARTE487  Independent Studies
Individual project in collaboration with a faculty member on
subject of mutual interest; based on written proposal. BoK: NA. Credit
Level: U. Credit Hrs: 1.00-3.00

23ARTE489  Independent Studies
Individual project in collaboration with a faculty member on a
subject of mutual interest; based on written proposal. Prereq: as free
elective: instructor and advisor's perm; as overload: 2.5 cumulative
average and instr and advisor's approval. BoK: NA. Credit Level: U.
Credit Hrs: 1.00-3.00

23ARTE471  Field Experience with Saturday School
First-hand experience teaching children and adolescents that
includes Saturday mornings during the last six weeks of the term. This
course is taught in conjunction with Content I. May include museums
and other educational settings "outside school walls." Coreq: 23ARTE710. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

23ARTE531  Field Experience
First-hand experience teaching children and adolescents in public
and/or private schools. This course is taught in conjunction with Content
II during the winter term. Coreq: 23ARTE711. BoK: NA. Credit Level: U,
G. Credit Hrs: 2.00

23ARTE532  Field Experience
First-hand experience teaching children and adolescents in public
and/or private schools. This course is taught in conjunction with Content
III during the spring term. Coreq: 23ARTE712. BoK: NA. Credit Level:
U, G. Credit Hrs: 2.00

23ARTE541  Student Teaching and Seminar
Weekly seminar supports student teaching through sharing of
experiences related to art curriculum and instruction, classroom
management and student discipline, intra and interpersonal issues with
school personal. Visiting speakers and guidance in writing resumes,
interviewing for jobs, and preparing paperwork for licensure. Prereq:
23ARTE712, 23ARTE532. BoK: DC, SS. Credit Level: U, G. Credit Hrs:
1.00

23ARTE542  Student Teaching and Seminar
Weekly seminar supports student teaching through sharing of
experiences related to art curriculum and instruction, classroom
management and student discipline, intra and interpersonal issues with
school personal. Visiting speakers and guidance in writing resumes,
interviewing for jobs, and preparing paperwork for licensure. Prereq:
23ARTE712, 23ARTE532. BoK: DC, SS. Credit Level: U, G. Credit Hrs:
1.00

23ARTE546  Community-Based Environmental Art
"Service learning," interdisciplinary, lecture- studio course that
integrates fine art, design, urban planning and art education. Students
team with urban/rural youth to design public/ environmental art that
mitigates blight, builds community, and helps improve prospects of the
youth. Optional summer course is offered to implement the works

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Co-requisites</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>23ARTE546</td>
<td>Community-Based Environmental Art</td>
<td>Designed. BoK: FA, SE. Credit Level: U, G. Credit Hrs: 4.00</td>
<td>4.00</td>
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<tr>
<td>23ARTE548</td>
<td>Global Art</td>
<td>Students explore the impact of the system of globalization in art and education with an emphasis on cultural awareness and dialogue. BoK: FA, DC. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>23ARTE550</td>
<td>Museum Internship</td>
<td>Provides students opportunities to experience art education programs offered in the museum first hand. Students work as &quot;interns&quot;, assisting museum educators to implement programs designed specifically to engage children and adolescents with original works of art. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00</td>
<td>1.00-3.00</td>
<td>23ARTE712, 23ARTE532</td>
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<tr>
<td>23ARTE560</td>
<td>Student Teaching</td>
<td>Observation, participation, teaching (internship) under supervision of a cooperating classroom teacher (mentor) and university supervisor. Minimum of 18 clock hour actual teaching required for each hour of credit given. Prereq: 23ARTE712, 23ARTE532. BoK: NA. Credit Level: U, G. Credit Hrs: 7.00-14.00</td>
<td>7.00-14.00</td>
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<tr>
<td>23ARTE600</td>
<td>Teaching Art in an Age of Technology</td>
<td>Explores basic and advanced computer literacy skills applied in teaching art K-12. Students survey current issues in computer technology while learning to use contemporary digital equipment and programs. Students examine Internet resources for art curriculum writing, presentation, and web design BoK: SS. Credit Level: G, U. Credit Hrs: 3.00</td>
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<tr>
<td>23ARTE650</td>
<td>Portfolio Development</td>
<td>Instruction to help students prepare an art education portfolio that synthesizes knowledge, skills, and dispositions in art and pedagogy developed through the art education curriculum. A successful review of the completed portfolio, for which this course provides preparatory instruction, is now required for licensure to be granted. BoK: NA. Credit Level: G, U. Credit Hrs: 2.00</td>
<td>2.00</td>
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<tr>
<td>23ARTE651</td>
<td>Portfolio Presentation</td>
<td>Presentation of art education portfolio that synthesizes knowledge, skills, and dispositions in art and pedagogy developed through the art education curriculum. A successful review of the completed portfolio is required for licensure to be granted. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00</td>
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<tr>
<td>23ARTE74</td>
<td>History of Art Education</td>
<td>The development of art education in American schools, related to changes in culture, education and art. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>23ARTE710</td>
<td>Art Education Content I</td>
<td>Introduction to the dynamics of teaching and learning about pluralistic forms and processes of art making. Students examine how learning about objects and artifacts relates to children and adolescents' perception, cognition, and interpretation processes. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>23ARTE711</td>
<td>Art Education Content II</td>
<td>Critical and historical inquiry into art; relationship to creating and to philosophical inquiry; multi-cultural approaches; contextual criticism; inquiry skills; questioning techniques; historiography; resources; discussions; motivation; integration of other subjects. Prereq: 23ARTE710. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>23ARTE712</td>
<td>Art Education Content III</td>
<td>This course focuses on the nature of philosophical inquiry and cross-cultural aesthetics. Students reflect on their own aesthetic beliefs and values and explore methods for introducing aesthetics in educational settings. Prereq: 23ARTE711. Credit Level: G. Credit Hrs: 4.00</td>
<td>4.00</td>
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<tr>
<td>23ARTE720</td>
<td>Multicultural Art Education</td>
<td>Students will examine theories, goals, and objectives of multicultural, intercultural, intracultural, and pluralistic art education in the United States. Key concepts like race, ethnicity, class, and gender will be examined through and inquiry-based approach. Identity, representation, and relationships between knowledge and power will be explored. Students will look at and analyze curricula and resources for teaching art from a multicultural perspective, and write a paper that focuses on a current, key topic in multicultural art education. Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>23ARTE788</td>
<td>Graduate Seminar in Art Education</td>
<td>Examination of current issues in art education. Study of various philosophies to generate different views on how art education should proceed. Critical analysis of literature advocating the different views. Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>23ARTE789</td>
<td>Curriculum and Program Development in Art Education</td>
<td>Issues, options and techniques for comprehensive curriculum design and development. Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>23ARTE790</td>
<td>Culminating Project</td>
<td>&quot;Capstone experience&quot; of M.A. program. The project takes the form of a paper that demonstrates student's ability to synthesize and apply knowledge and cognitive skills acquired in the program. Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>23ARTE804</td>
<td>Directed Readings</td>
<td>Selected readings related to student's research focus. Written contract required before qtr begins. Credit Level: G. Credit Hrs: 1.00-6.00</td>
<td>1.00-6.00</td>
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<tr>
<td>23ARTE806</td>
<td>Directed Readings</td>
<td>Selected readings related to student's research focus. Written contract required before quarter begins. Credit Level: G. Credit Hrs: 1.00-15.00</td>
<td>1.00-15.00</td>
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<tr>
<td>23ARTE835</td>
<td>Art and Social Responsibility</td>
<td>Graduate seminar that examines art in contemporary societies and its impact on art education. Course focuses on art and culture as affected by, for example, gender, social class, sexual orientation, disability, and ethnicity within a framework of social justice Credit Level: G. Credit Hrs: 3.00</td>
<td>3.00</td>
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<tr>
<td>23ARTE672</td>
<td>Individual Study in Art Education</td>
<td>Individual work on a problem in art education. (Primarily for advanced students.) Credit Level: G. Credit Hrs: 1.00-6.00</td>
<td>1.00-6.00</td>
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<tr>
<td>23ARTE971</td>
<td>Doctoral Dissertation Research</td>
<td>Research directed toward topic development and completion of doctoral dissertation (Ed.D.) as it specifically pertains to art education.</td>
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**Art Education**

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<tr>
<td>23ARTE971</td>
<td>Doctoral Dissertation Research</td>
<td>1.00-15.00</td>
<td>Written contract required before quarter begins. Offered each quarter. Perm of instructor's and adviser's approval.</td>
</tr>
</tbody>
</table>

**Art History**

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<th>Course Code</th>
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<tr>
<td>23ARTH111</td>
<td>History of Art I: Ancient-Early Medieval</td>
<td>3.00</td>
<td>Survey of art and architecture in the ancient world and medieval Europe until about A.D. 1100. Transfer Module. BoK: DC, HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH111H</td>
<td>History of Art I: Ancient-Early Medieval</td>
<td>3.00</td>
<td>Survey of art and architecture in the ancient world and medieval Europe until about A.D. 1100. Transfer Module. BoK: DC, HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH112</td>
<td>History of Art II: Romanesque-Renaissance</td>
<td>3.00</td>
<td>Survey of European art and architecture from about 1100 to 1600. Transfer Module. BoK: DC, HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH112H</td>
<td>History of Art II: Romanesque-Renaissance</td>
<td>3.00</td>
<td>Survey of European art and architecture from about 1100 to 1600. Transfer Module. BoK: DC, HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH113</td>
<td>History of Art III: Seventeenth-Twentieth Centuries</td>
<td>3.00</td>
<td>Survey of European and American art and architecture from 1600 to the present. Transfer Module. BoK: DC, HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH113H</td>
<td>History of Art III: Seventeenth-Twentieth Centuries</td>
<td>3.00</td>
<td>Survey of European and American art and architecture from 1600 to the present. Transfer Module. BoK: DC, HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH140</td>
<td>Survey of East Asian Art</td>
<td>3.00</td>
<td>This introductory course covers the major monuments of Indian, Chinese, and Japanese art from the prehistoric period to the present. It is designed to offer a broad overview of the visual and spiritual traditions of East Asia with special focus on Buddhist art and later developments in secular art. Lectures will be supplemented by videos, demonstrations, and visits to the Cincinnati Art Museum. BoK: HP, DC. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH191</td>
<td>Modern Painting and Sculpture</td>
<td>3.00</td>
<td>Survey of the major artists and monuments from Post-Impressionism to the present, including works by Picasso, Matisse, Kandinsky, Moore, Pollock, De Kooning. Transfer Module. BoK: HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH223</td>
<td>Medieval Art II</td>
<td>3.00</td>
<td>European art and architecture from the beginning of the Romanesque period until the end of the Middle Ages. BoK: HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH224</td>
<td>Early Medieval Architecture</td>
<td>3.00</td>
<td>Churches, places and fortifications in Europe from the beginning of the fourth century to the year 1000. BoK: HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH247</td>
<td>Study Abroad Seminar</td>
<td>1.00</td>
<td>Selected topics and travel experience designed to introduce students to the nature of university life, to globalization issues, and to several disciplines and/or professions through an experience abroad Perm of</td>
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</tbody>
</table>

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<tr>
<td>23ARTH204</td>
<td>Art Education</td>
<td>2.50</td>
<td>One of two courses designed to provide a solid overview of the Baroque period and culture, by introducing and focusing on the principles and characteristics of Baroque art and architecture, and then by exploring in detail how the Baroque took shape in the context of the various countries of Europe. Part one focuses on Baroque art in Italy, France, England, and Germany, while Part two covers Flemish, Dutch, and Spanish Baroque art. Prereq: 23ARTH113. BoK: DC. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH202</td>
<td>Approaches to Art History</td>
<td>3.00</td>
<td>Introduction to the aims, history, and methods of art historical research. Emphasis on analytical techniques, various approaches, key scholars, and the ways Art History is practiced. BoK: HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH201</td>
<td>Nineteenth Century Art to 1850</td>
<td>3.00</td>
<td>Neoclassicism and Romanticism in European and American painting and sculpture, with emphasis on works by David, Ingres, Goya, Delacroix, Gericault, Constable, and Turner. BoK: HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH203</td>
<td>Nineteenth Century Art: 1850 to 1900</td>
<td>3.00</td>
<td>Realism, Impressionism, Post-Impressionism, Symbolism, and Early Expressionism in European and American painting and sculpture, with emphasis on Courbet, Monet, Renoir, Gauguin, Van Gogh, and Munch. BoK: HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH204</td>
<td>Two Hundred Years of American Art: 1776-1976</td>
<td>3.00</td>
<td>Painting, sculpture, and architecture in the United States from the Revolution to the present. BoK: HP. Credit Level: U.</td>
</tr>
<tr>
<td>23ARTH205</td>
<td>Independent Study</td>
<td>2.50</td>
<td>Individual project in collaboration with a faculty member on subjects of mutual interest, based on written proposal. Prereq: As a free elective, instructor's and adviser's approval; as overload, 2.5 cumulative average and instructor's and adviser's approval. Perm of Instructor. BoK: NA.</td>
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</tbody>
</table>

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Art History

23ARTH387
Independent Study
Credit Level: U. Credit Hrs: 1.00-3.00

23ARTH397
Public Art and Funding in the US
To familiarize students with key issues involving public art and public funding in the U.S. by examining selected topics. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23ARTH481
Seminar in Art History
Required course for Art History majors only. Survey of history of field, with emphasis on contemporary method logics. BoK: HP, Credit Level: U. Credit Hrs: 3.00

23ARTH510
Philosophy and Performance
This upper-level undergraduate and graduate course (500-level) explores philosophical thinking about performance, art, politics, and identity from a range of historical and cultural perspectives. Theoretical work is rigorous, and students will engage texts, media presentations, and live performance (as both spectators and performers). In addition to written assignments, projects, and possible field trips, students are required to participate in solo and ensemble performances. BoK: DC., SE. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH533
Northern Painting I
A study of painting in the Netherlands, c. 1400-1600 with emphasis on Rubens, Weyden, Bosch, and Bruegel. Rembrandt, portrait, landscape, and genre painting. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH535
Northern Painting II
A study of 17th century Netherlandish painting with emphasis on Rubens, Rembrandt, portrait, landscape, and genre painting. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH550
History of Japanese Prints I
This dual-level course is the first half of a two-quarter survey of Japanese woodblock prints. Prints from the eighteenth and nineteenth centuries will be the focus of this course. In addition to stylistic development of the prints, special attention will also be paid to the cultural milieu in which woodblock prints arose and flourished -- especially the literary circle, the world of theatre, and the pleasure quarters in the city of Edo. The course will include visits to the Cincinnati Art Museum. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH551
History of Japanese Prints II
This is the second part of the two-quarter course on the history of Japanese prints. It will cover the prints from the second half of the nineteenth century to the present. Modern and contemporary Japanese painting and prints have been increasing in popularity -- especially in Japan -- and the course will focus on the revival of woodblock prints from the nineteenth and early twentieth centuries and the subsequent cross-pollination between Japanese prints and contemporary European woodcuts. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH562
African American Art, 1945-present
African-American painting, sculpture, prints, photography, performances, installations, environments, videos, and street art from 1945 to present. Issues include civil rights, antiwar, and women's movements. BoK: HP., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

Art History

23ARTH564
History of Photography
Traces the development of photography in the Western world from early experiments and inventions in the 18th century to the latest technology in the 1940s. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH567
Video Art
Survey of recent work in Video Art. Each week the class will look at video, interactivity, politics, or responses to broadcast media. Each week the class will screen and discuss original examples of video art, from a variety of decades, all dealing with aspects of that week's topic. In addition to these screenings, each week several students will be tasked to do short presentations on contemporary artists working in other media, whose work connects to the theme. Weekly reading assignments will prepare students for work to be presented and discussed in the following week. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH581
Spatial Politics
This course provides an overview of art and architecture from the 1950s to today in relation to understandings of place and spatiality that have dominated critical debates in recent decades. Focus in this course falls to contemporary cultural works and terminology. BoK: HU., DC. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH584
Elective Studies in Art History
Selected special topics in art historical studies. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH585
Twentieth Century Art I
Development of new forms and ideas in the art of Matisse, Kandinsky, Mondrian, and the Futurists. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH586
Twentieth Century Art II
Dada-Surrealist painting, performance, writings. Abstract expressionist painting in America. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH587
Twentieth Century Art III
Art of the 60s and current trends; varieties of expression and a study of the criticism. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00-4.00

23ARTH588
Contemporary Art and Theory
A survey of art of the past two decades with special attention to key issues informing artistic practice in the visual arts today. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

23ARTH730
Folk/Outsider/Self-Taught Art
The class will consider ways in which modern American identity is formed & maintained, the defining of marginalized social groups as "other" & the collecting of their artifacts as art. We'll examine aesthetic works displayed in galleries, by collectors, & analyzed by art critics & historians. Credit Level: G. Credit Hrs: 4.00

23ARTH750
Historiography
This seminar examines the history of Art History from its inception to the present, highlighting significant methodologies and specific art historians. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
Art History

23ARTH751 Research Seminar
Required of all first-year graduate students. Discussion of art historical methods and use of research tools, followed by a survey of major contemporary schools of art-historical research. Credit Level: G. Credit Hrs: 4.00

23ARTH752 Thesis Colloquium
Thesis Colloquium and Professional Practices Seminar. Designed to guide students through the thesis process by getting the proposal approved and writing the introduction and a chapter, and familiarize them with current practices in the field regarding professional organizations, conferences, and publications. Required of all students. Prereq: 23ARTH751. Credit Level: G. Credit Hrs: 4.00

23ARTH791 Independent Study
An individual project in collaboration with a faculty member on a subject of mutual interest. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-4.00

23ARTH802 Rembrandt
An examination of the life, paintings, and graphic works of Rembrandt, and a study of the place of the artist in 17th-century art. Credit Level: G. Credit Hrs: 4.00

23ARTH804 Collection Management: Registration and Conservation
In depth examination of principles and practices of managing collections in museums. Also includes a section on the study of the treatment and materials used by conservators to protect and restore museum objects. Credit Level: G. Credit Hrs: 4.00

23ARTH805 Colonialism, Postcolonialism, Globalism, and Exhibition
A seminar dealing with contemporary postcolonial theory and criticism in relation to the history of exhibitions of the 19th and 20th Centuries, spanning the spectacular display of so-called primitive arts and peoples to now-contemporary state-sponsored biennials. Credit Level: G. Credit Hrs: 4.00

23ARTH806 Curating Architecture
Addresses the increasing extent to which artists, galleries and museums are exhibiting or are incorporating innovative forms of interior design in installation work as display strategies. Credit Level: G. Credit Hrs: 4.00

23ARTH807 Dissolving The White Cube
A course on the evaluation of contemporary curating from the debates in the 1960s around the concept of the gallery as white cube to the post-studio practices of the present. Credit Level: G. Credit Hrs: 4.00

23ARTH808 Exhibition Planning and Design
Study of the exhibition planning & design process, label writing, design & display methods, lighting, publications, public programming and outreach. Special consideration will be given to the challenges museums face in presenting material from other cultures. Credit Level: G. Credit Hrs: 4.00

23ARTH809 Museum Education
A comprehensive study of developments in museum educational initiatives of the last 30 years with a particular emphasis on recent attempts by museums to expand their reach into more diverse ethnic and economic communities. Evaluation of the effectiveness of technology in applied Museum Ed. Credit Level: G. Credit Hrs: 4.00

23ARTH838 Japanese Aesthetics
This course specifically deals with various aspects of the aesthetic sensibilities that characterized Japanese art from the eleventh century to the seventeenth century. The period between the 1000s and the 1600s was the time when most of the artistic, religious, and literary concepts that characterize Japanese painting came into being. Students will study those major concepts by examining primary and secondary sources by artists, art historians, and authors. Credit Level: G. Credit Hrs: 4.00

23ARTH859 Modern Japanese Art, 1850-1940
This is a seminar on Japanese art of the 19th century and the first half of the 20th century, a time of tremendous cultural turmoil. In this class students will investigate the rise of bipartisan-ship in the world of painting-Japanese style and Western style- with a view to the intellectual and sociopolitical backgrounds. They will also examine recent scholarship on other media, such as wood-block prints, graphic design, and photography, to gain a deeper understanding of the complexity of modern Japanese visual culture. Credit Level: G. Credit Hrs: 4.00

23ARTH865 Modern Japanese Art, 1850-1940
Northern Baroque Painting: Rubens
An in-depth study of Peter Paul Rubens and his place in Flemish art during the seventeenth century. Credit Level: G. Credit Hrs: 4.00

23ARTH848 Dutch History/Genre Painting
A study of 17th century Dutch history and/or genre painting. Credit Level: G. Credit Hrs: 4.00

23ARTH865 Museum Management
Introduction to the theory and practice of museum operations. Topics include: collection care; exhibition and education program development ethics; tax and legal issues; fund raising; budgeting; strategic planning; audience facilities; board and staff roles and responsibilities. Credit Level: G. Credit Hrs: 4.00

23ARTH870 Collection Management
In-depth examination of principles and practices of managing collections in museums, including: accessing, cataloging, documentation, storage, loans, insurance, computerization, etc. Credit Level: G. Credit Hrs: 4.00

23ARTH871 Interpretation of Collections
Comprehensive study of the ways in which museums use their collections to provide educational experiences for visitors. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 4.00

23ARTH872 Problems in Museum Administration
Investigation of current issues in the museum field considered within a comprehensive context; the conceptualization, definition, and development of a museum organization from mission statement to facility. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 4.00

23ARTH873 Conservation Methods
Study of the treatment methods and materials used to restore museum objects, as well as preventative measures used to reduce deterioration. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 4.00

23ARTH874 Technology in Museums
Examination of the role of computers in museum-specific applications, such as collections, exhibitions, fund raising, internet, educational programming, etc. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 4.00
Art History

23ARTH875 Graduate Museum Internship
200-hour placement at a museum in which students gain practical experience in museum operations, geared toward career goals of individual students. Placement is arranged through certificate program director, with supervision and evaluation by student, museum supervisor, and program director. Prereq: 23ARTH865. Credit Level: G. Credit Hrs: 2.00-4.00

23ARTH879 Topical Graduate Seminar
Selected graduate topics in art history studies. Credit Level: G. Credit Hrs: 1.00-12.00

23ARTH890 Directed Research
This course allows graduate students to conduct advanced research for faculty who are working on specific, substantial projects such as books or exhibitions. Students have the unusual opportunity to gain in-depth knowledge about a particular area of study, such as a period in art history, an individual artist, or a style, by conducting research using primary source materials in local and regional archives, libraries, and museums. Credit Level: G. Credit Hrs: 4.00

Digital Design

23DGTL211 Design Ideation I
U. Credit Hrs: 3.00

23DGTL212 Design Ideation I
Studio course. Exploration of interface design concepts. Strategies for the design of interface, development of information architecture, and information design. Prereq: 23DGTL211. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL213 Design Ideation I

23DGTL221 Digital Image Design I
Studio course. Fundamentals of photographic technique, technical considerations of digital photography and scanned images. Exploration of the aesthetics of digital image making and manipulation. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL222 Digital Image Design I
Studio course. Integration of meaning with layered, acquired images. Exploration of degrees of representation and impact on meaning and aesthetics. Prereq: 23DGTL221. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL231 Design Technology I
Survey of the internet, its history, culture, technology and legal issues. Students are introduced to basic web design and techniques through exercises. Prereq: 23FDST131, 23FDST132, 23FDST133. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL232 Design Technology I
Survey and exploration of computers and programming as digital design tools. Students develop a foundational understanding of programming as a formal process through practical exercises. Prereq: 23DGTL231. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL241 Visible Language Design I

23DGTL242 Visible Language Design I
Studio course. Exploration of motion and interaction in typography. Emphasis on aesthetics of motion and interaction and their impact on meaning in typographic systems. Prereq: 23DGTL241. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23DGTL251 Audio Design I
Project based survey of technical considerations of audio recording and digital manipulation and layering. Exploration of audio concepts and theories of meaning. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL270 History of Digital Design
Historical perspectives of the development of digital media and digitally mediated environments. Survey of the history of information processing hardware, communication systems and networks, aesthetics and information pragmatics, information theory, programming and software. Lecture course. Prereq: 23FDST270. BoK: HP. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Digital Design

23DGTL270
History of Digital Design
Historical perspectives of the development of digital media and digitally mediated environments. Survey of the history of information processing hardware, communication systems and networks, aesthetics and information pragmatics, information theory, programming and software. Lecture course. Prereq: 23FDST270. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23DGTL271
Digital Design Seminar I
Research-oriented complement to concurrent studio focusing on consideration of the logical, philosophical, metaphysical, ethical and conceptual underpinnings of design leading toward the formation of a personal design philosophy. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23DGTL272
Digital Design Seminar II
Research-oriented complement to concurrent studio focusing on consideration of communication concepts: semiotics, linguistics, media types, information types and verbal visual characteristics. Prereq: 23DGTL271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL273
Digital Design Seminar III
Research-oriented complement to concurrent studio focusing on theoretical considerations related to media influence on message. Context considerations, content malleability, mass media, individual user experience, broadcast communication, two-way communication. Prereq: 23DGTL272. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL280
Multimedia for E-Media
Principles of interactive multimedia design for Electronic Media majors. Exploration of interactive interface design issues. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL281
Core Topics
Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL282
Core Topics
Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL283
Core Topics
Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL301
Digital Design II
Studio course. Exploration of Design and programming of applications for emerging platforms, including embedded and networked environments. Prereq: 23DGTL203. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL302
Digital Design II
Studio course. Design and programming of interactive real-time 3D. Students examine key technical and aesthetic issues through projects and exercises. Prereq: 23DGTL301. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL311
Design Ideation II
Studio course. Exploration of visual principals in 3D modeling and ideation. Low polygon as well as production level creation. Prereq: 23DGTL213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Digital Design

23DGTL312
Design Ideation II
Studio course. Exploration of 3D animation and ideation. Motion studies and basic character animation. Prereq: 23DGTL311. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL321
Motion Design I
Studio course. Introduction to visual storytelling using the medium of 2D animation. Digital Storytelling and animation. Prereq: 23DGTL222. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL322
Motion Design I
Studio course. Exploration of interactive motion typography with emphasis on dynamic meaning transformation using vector based interactive tools. Prereq: 23DGTL321. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL371
Digital Design Seminar IV
Research-oriented complement to concurrent studio with focus on issues in narrative structure and the process of storytelling. Prereq: 23DGTL272. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL372
Digital Design Seminar V
Research-oriented complement to concurrent studio course, exploring various issues surrounding design for interactive 3D technology and communication. Prereq: 23DGTL371. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL373
User/Learner Centered Design: Seminar
Introduction to cognition, learning theory and usability testing. Time and motion perception. Creation of on-line documentation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DGTL388
Independent Studies
Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23DGTL401
Digital Design III

23DGTL402
Digital Design III
Studio course. Introduction to interactive narrative. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL411
Design Ideation III
Studio course. Investigation of advanced 2D and 3D visualization on collaboration projects. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL412
Design Ideation III
Studio course. Interdisciplinary projects in advanced visualization. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL421
Motion Design II
Integration of meaning with motion imagery/digital video. Study of aesthetics of motion. Exploration of degrees of representation of motion imagery and impact on meaning and aesthetics. Studio course. Prereq: 23DGTL322. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DGTL422
Motion Design II
Integration of meaning with layered motion imagery/digital video. Study
Digital Design

23DSGN100 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN172 Photography
Introductory lectures only, presenting basic principles of camera work in black and white and color photographic techniques. Emphasis on content and composition of photography. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Design

23DSGN172 Photography
Credit Hrs: 3.00

23DSGN173 Photography II
A continuation of aesthetic and technical skills. Course study focuses on use of color film, artificial and existing light, and advanced metering technique. Individual investigation for greater personal expression will be encouraged. Students must have a 35mm SLR camera. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN200 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN201 Visual Literacy
An introduction to the physiology, psychology and dynamics of visual communication. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN204 Principles of Digital Design I
Elements and principles of digital design that underline all spatial arts. A hands-on course in digital design using Adobe Illustrator. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN205 Principles of Digital Design II
Continuation of 23DSGN204. A hands-on course using Adobe Illustrator. Prereq: 23DSGN204. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN219 Digital Video I
An overview of the basic steps involved in video production process: pre-production, production, post-production. This entails a discussion of the principles of conceptualization, planning, scheduling, budgeting, organization and visualization involved in the pre-production stage of creating a video program. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DSGN220 Digital Video II
The course will explore the various theoretical, technical, and aesthetic tasks and decisions involved in digital desktop video editing. Through demonstrations and hands-on sessions, students will become familiar with the processes involved in editing in the digital realm, specifically using the Adobe Premiere. Prereq: 23DSGN219. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DSGN270 History of Visual Communication
Chronological survey of visual communication from prehistoric origins to the present digital era. The course will study those pivotal events, achievements, individuals and pioneers that influenced and contributed towards the discipline's visual communication evolution. Presented in an interdisciplinary context, students will learn how visual communication has always been a vital component of cultural periods and human history. They will discover how it constantly responded to (and affected) the cultural, socioeconomic, scientific, political and technology developments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Design

23DSGN281
International Travel
International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN282
International Travel
International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN283
Digital Illustrating
Offering an expanded knowledge of graphic design using drawing programs this course allows students to enhance their digital publishing skills by becoming proficient in the vector environment. Drawing short-cuts and transformation methods are stressed, along with the building process for object-oriented rendering. Course is part of Applications cluster. Prereq: 23DSGN279. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN288
Digital Painting I
This class will introduce students to a unique computer program that allows the user to generate traditional mediums like charcoal, oil and watercolor paints, crayon, pencil, pen and ink, airbrush and much more. Prereq: 23DSGN283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN289
Digital Painting II
This class will utilize the Painter 5 program in a unique but traditional setting. Students will sketch and develop illustrations and paintings while working from live models and still lifes while learning traditional rendering skills. Prereq: 23DSGN288. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN300
Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN307
Interactive Animation and Design
This program has opened many doors to interactive animation and design. Static web pages become doorways to movies, audio sounds and more. This program has captured 80% of the Web and is growing every day. Students will have an opportunity to participate and play with vector graphic animation that is easily assembled into scenes for Web animations and interactive CDs. Prereq: 23DSGN283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN310
Digital Image Editing
This intensive, hands-on course explores the vast capabilities of Adobe Photoshop, focusing on advanced manipulation techniques for photos and graphics. Participants learn to scan and enhance digital images, use layers, work with channels, and create impressive special effects using filters. Course is part of the Applications cluster. Prereq: 23DSGN283. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN311
Design Visualization
Two-dimensional visual presentation of design concepts for today's technology using mixed media, emphasizing efficient execution and quality of content. Exercises explore techniques appropriate for various levels of design development, from thumbnail sketches to finished renderings; visual dynamics of function and context and organization. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN312
Design Visualization
Continuation of 23DSGN311. Advanced exercises similar to 311. Emphasis is on more complex composition and color visualization skills.

Design

23DSGN312
Design Visualization
BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN313
Design Visualization
Continuation of 23DSGN312. Emphasis on organization of complete professional design presentations. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN314
Digital 3-D and Animation
This class will allow students to create frames and render them in 3-D while allowing them to move freely through space in a very visual manner. Prereq: 23DSGN289, 23DSGN310, 30IT289, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN318
Advanced Digital Illustrating and Photo Editing
Class covers some advanced capabilities of Photoshop and Illustrator not covered in preceding classes. Tips and tricks of both programs help students to understand some step-by-step, hands-on learning that brings the program's more expert functions into a practical, everyday use. Prereq: 23DSGN283, 23DSGN310, 30IT283, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN321
Brand Identity
A graphic design course focusing on Typography and Logo Signature Marks in the corporate and brand identity arena. The background history, hands-on development and deepened understanding will benefit any designer. Prereq: 23DSGN283. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DSGN351
Intermediate Photography I
(Formerly Photography for Designers.) Lectures and exercises in photographic lighting to explore both technical and aesthetic effects. Individuals select personal projects to demonstrate their mastery of the lecture material. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN352
Intermediate Photography II
Continuation of 23DSGN351. Photography in both studio and on-site settings, with emphasis on lighting, staging and composition appropriate to illustrating form and demonstrating features of 3-dimensional objects. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN361
Digital Photography
An introduction to digital photography offering students an opportunity to integrate photography and art. The skills learned in this class can complement many college majors. This course is one of the requirements in the Applied Design Certificate Program. Prereq: 23DSGN283, 23DSGN310, 30IT283, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN381
International Travel
International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN382
International Travel
International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN400
Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

H=University Honors course.
Design

23DSGN400
Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department.
BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN410
Web Graphic Design
Web design from a graphic artist/designer perspective. Students will learn to design web pages with design criteria and to implement their designs in HTML format. Prereq: 23DSGN283, 23DSGN310, 30APDS310, 30IT310. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN419
Programming for Graphic Designers
This course deals with the programming needs of graphic designers as they work on the WWW. Prereq: 23DSGN205, 23DSGN307, 30IT307. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23DSGN421
Senior Digital Design Project
This course allows students to integrate all of their course work into one final project. This is intended as a culmination of the program. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN481
International Travel
International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN482
International Travel
International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN499
Independent Study in Design
Please complete and submit an Independent Study Application form available from the college office. BoK: FA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN500
Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23DSGN581
International Travel
International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN582
International Travel
International travel to observe universal trends, fashion trends, universal and cultural symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23DSGN701
Studio: Visual Studies I Color Systems
Introduction to advanced visual studies. Students will examine color systems as parameters and variables leading to an understanding of principles governing the making and use of color as an essential component of visual language used for the embodiment of content. Credit Level: G. Credit Hrs: 3.00

23DSGN702
Studio: Visual Studies II Form Systems
Students will explore form systems as parameters and variables leading to an understanding of principles governing the making and use of form: dot, line, shape, an essential component of visual language used for the embodiment of content. Credit Level: G. Credit Hrs: 3.00

23DSGN703
Studio: Visual Studies III Multiples Systems
Students will explore computer encoded form generating systems of parameters and variables that generate multiples leading to an understanding of principles governing the making and use of multiples and the implications for the embodiment of content. Credit Level: G. Credit Hrs: 3.00

23DSGN711
Design Strategy, Theory & Practice
Introduction to Design as a Strategic problem solving process. Students will explore methods of design thinking that apply to all design disciplines including design thinking, integrated product development, strategy development, translational research and other methods of design practice that apply across disciplines.

23DSGN712
Interaction Design Theory & Practice
Introduction to Interaction Design. Students will explore the principles of Interaction as a means to embody processes, often with physical products, and measure the effectiveness of the result. Exploration will occur in the context of cross-disciplinary collaboration. Principles of collaboration: importance of cross-functional teams, methods for making group decisions and the role of the individual in the design process will be experienced and discussed. Credit Level: G. Credit Hrs: 3.00

23DSGN713
Visualization Design Theory & Practice
Introduction to Visualization Design. Students will explore the principles of Visualization as a means to embody data and measure the effectiveness of the result. Exploration will occur in the context of cross-disciplinary collaboration. Principles of collaboration: importance of relationship, dealing with differences in vocabulary, proper governance styles and shared purpose will be experienced and discussed. Credit Level: G. Credit Hrs: 3.00

23DSGN717
Teaching Practicum
Supervised experience in curriculum development and classroom teaching, in lecture, seminar, lab, or studio courses. Credit Level: G. Credit Hrs: 1.00-9.00

23DSGN721
CDRI/Consortium Projects
Exploration of Translational Design Research. Students will explore professional Design Research in the context of a sponsored project related to government or industry. Credit Level: G. Credit Hrs: 3.00

23DSGN722
CDRI/Consortium Projects
Exploration of Translational Design Research. Students will explore professional Design Research in the context of a sponsored project related to government or industry. Credit Level: G. Credit Hrs: 3.00
Design
23DSGN723 CDRI/Consortium Projects
Exploration of Translational Design Research. Students will explore professional Design Research in the context of a sponsored project related to government or industry. Credit Level: G. Credit Hrs: 3.00

23DSGN724 Summer CDRI/Consortium/Professional Projects
Exploration of Translational Design Research. Students will explore professional Design Research in the context of a Summer-long sponsored project with a client or for government or industry. Credit Level: G. Credit Hrs: 3.00

23DSGN731 Technique Workshop: 3D Modeling & Prototyping
Introduction to techniques for computationally based 3D modeling. Learning will occur in the context of the Rapid Prototyping Lab. Credit Level: G. Credit Hrs: 1.00

23DSGN732 Technique Workshop: Programming
Introduction to the basic principles and techniques of Computer Programming. Learning will occur in Processing software environment. Credit Level: G. Credit Hrs: 1.00

23DSGN733 Design Graduate Studies
Independent study, advanced studio/lab, or thesis-related research in interdisciplinary design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN734 Design Graduate Studies
Independent study, advanced studio/lab, or thesis-related research in interdisciplinary design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN741 Digital Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Digital Design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN742 Digital Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Digital Design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN743 Digital Design Graduate Studies
Graduate Studies in advanced studio/lab, or thesis-related research in Digital Design. Credit Level: G. Credit Hrs: 1.00-5.00

23DSGN751 Research Methods 1: Exploratory & Constructive
Introduction to the subject matter of design research: form and people, followed by an overview of Exploratory Research approaches designed to identify new problems and structure a domain. Students will explore qualitative and quantitative research methods including: Interviews, Surveys, Needs Analysis, Card Sorting, Task Analysis, Focus Groups, Ethnographic Field Studies and Action Research. Credit Level: G. Credit Hrs: 3.00

23DSGN752 Research Methods 2: Empirical & Analysis
Overview of Empirical Research methods designed to test feasibility and measure effectiveness of proposed design solutions. Students will explore principles of experiment design, statistical analysis, probability and hypothesis testing. Credit Level: G. Credit Hrs: 3.00

Introduction to the requirements and expectations of the graduate Design thesis project. Credit Level: G. Credit Hrs: 3.00

23DSGN754 Seminar: Design Business
Introduction to the role of design in business. Students will explore
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Credits Hrs:</th>
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<tbody>
<tr>
<td>23DSGN803</td>
<td>Graduate Design Seminar II</td>
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<td></td>
<td>Advanced seminar topics on design, technology, society, and</td>
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<td>environment. Credit Level: G. Credit Hrs: 4.00</td>
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<td>23DSGN811</td>
<td>Design Thesis I</td>
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<td>Guidance on individual thesis projects. Credit Level: G.</td>
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<td>23DSGN812</td>
<td>Design Thesis 2</td>
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<td>Guidance on individual thesis projects. Credit Level: G.</td>
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<td>Credit Hrs: 1.00-6.00</td>
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<td>23DSGN813</td>
<td>Design Thesis 3</td>
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<td></td>
<td>Guidance on individual thesis projects. Credit Level: G.</td>
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<td>Credit Hrs: 1.00-6.00</td>
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<tr>
<td>23DSGN817</td>
<td>Teaching Practicum</td>
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<td></td>
<td>Supervised experience in classroom teaching, in lecture,</td>
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<td></td>
<td>seminar, lab, or studio courses. Credit Level: G. Credit</td>
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<td>Hrs: 1.00-9.00</td>
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<td>23DSGN821</td>
<td>CDRI/Consortium Projects</td>
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<td>Exploration of Translational Design Research. Students will</td>
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<td>explore professional Design Research, in the context of a</td>
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<td>sponsored project related government or industry. Credit</td>
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<td>Level: G. Credit Hrs: 3.00</td>
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<td>23DSGN822</td>
<td>CDRI/Consortium Projects</td>
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<td>Exploration of Translational Design Research. Students will</td>
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<td>Level: G. Credit Hrs: 3.00</td>
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<td>23DSGN831</td>
<td>Design Graduate Studies</td>
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<td>Independent study, advanced studio/lab, or thesis-related</td>
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<td>research in interdisciplinary design. Credit Level: G.</td>
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<td>Credit Hrs: 1.00-5.00</td>
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<td>23DSGN832</td>
<td>Design Graduate Studies</td>
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<td>Independent study, advanced studio/lab, or thesis-related</td>
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<td>research in interdisciplinary design. Credit Level: G.</td>
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<td>23DSGN833</td>
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<td>research in interdisciplinary design. Credit Level: G.</td>
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<td>23DSGN841</td>
<td>Digital Design Graduate Studies</td>
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<td>research in Digital Design. Credit Level: G. Credit Hrs:</td>
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<td>research in Digital Design. Credit Level: G. Credit Hrs:</td>
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H=University Honors course.
Introduction of basic properties and techniques of clay. Course
Level: U. Credit Hrs: 4.00

Varied subject matter and media. Prereq: 23FAA242. BoK: FA. Credit Level: U. Credit Hrs: 2.00

Digital Foundations I
A three-quarter sequence of two credit courses that will focus on the
theoretical and practical application of computers while building general
skills and exposing the student to a wide array of software. The course
will progress from general computing concepts to 2-D graphical
representation then culminating in a 3-D animation and video
production. Students will learn general concepts during a lecture
portion of the class then apply these concepts utilizing specific software
in a lab component of the class. BoK: NA. Credit Level: U. Credit Hrs: 2.00

Digital Foundations II
A three-quarter sequence of two credit courses that will focus on the
theoretical and practical application of computers while building general
skills and exposing the student to a wide array of software. The course
will progress from general computing concepts to 2-D graphical
representation then culminating in a 3-D animation and video
production. Students will learn general concepts during a lecture
portion of the class then apply these concepts utilizing specific software
in a lab component of the class. BoK: NA. Credit Level: U. Credit Hrs: 2.00

Digital Foundations III
A three-quarter sequence of two credit courses that will focus on the
theoretical and practical application of computers while building general
skills and exposing the student to a wide array of software. The course
will progress from general computing concepts to 2-D graphical
representation then culminating in a 3-D animation and video
production. Students will learn general concepts during a lecture
portion of the class then apply these concepts utilizing specific software
in a lab component of the class. BoK: NA. Credit Level: U. Credit Hrs: 2.00

Current Arts Forum
Discussion and analysis of artists' work and ideas to assist in
understanding the nature of art and art making. BoK: FA. Credit Level:
U. Credit Hrs: 2.00

Basic Drawing I
An intensive drawing course. Basic problems in the observation and
interpretation of form with concern for space, line, volume, shape, and
composition. Varied subject matter and media. BoK: FA. Credit Level:
U. Credit Hrs: 4.00

Basic Drawing II
Continuation of Basic Drawing I. Basic problems in the observation and
interpretation of form, with the added study of basic color principles.
Varied subject matter and media. Prereq: 23FAA241. BoK: FA. Credit Level:
U. Credit Hrs: 4.00

Basic Drawing III
Continuation of Basic Drawing II. Basic problems in the observation and
interpretation of form, with added emphasis on stylistic approaches.
Varied subject matter and media. Prereq: 23FAA242. BoK: FA. Credit Level:
U. Credit Hrs: 4.00

Introductory Ceramics: Handbuilding
Introduction of basic properties and techniques of clay. Course
includes all basic handbuilding techniques as well as glaze application.

Intermediate Drawing
Introductory work in the use of sound as a medium for artistic
expression. Studio course in which students create works of art and
study the practice of professional artists working in this field. BoK: FA.
Credit Level: U. Credit Hrs: 4.00

Intermediate Drawing II
Continuing study of the human anatomy. The human figure as a vehicle for
drawn images. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level:
U. Credit Hrs: 4.00

Intermediate Drawing III
Continuing study of the human anatomy. The human figure as a vehicle for
drawn images. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level:
U. Credit Hrs: 4.00

Introduction to Programming for Artists
Introductory work in the use of computer programming as a medium for
artistic expression. Studio course in which students create works of art and
study the practice of professional artists working in this field. BoK: FA.
Credit Level: U. Credit Hrs: 4.00

Introduction to Sound Art
Introductory work in the use of sound as a medium for artistic
expression. Studio course in which students create works of art and
study the practice of professional artists working in this field. BoK: FA.
Credit Level: U. Credit Hrs: 4.00

Introduction to Video for Artists
Introductory work in the use of video as a medium of artistic expression.
Studio course in which students create works of art and study the
practice of professional artists working in this field. BoK: FA. Credit Level:
U. Credit Hrs: 4.00

Intermediate Drawing
Exploration in drawing through a broad range of media, processes, and
individualized problem solving. Prereq: 23FAA243, 23FAA103. BoK:
FA. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
**Fine Arts - Art**

23FAA331  
*Introduction to Interactive Art*  
Introductory work in the design of interactive artwork and the use of the interface as a medium of artistic expression. Studio course in which students create works of art and study the practices of professional artists working in this field. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA334  
*Introduction to New Media*  
Introductory work in the use of new media as a medium of artistic expression. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA335  
*Computer Animation I*  
Introduction to 2D and 3D computer animation techniques. Prereq: 23FAA243, 23FAA103. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA336  
*Computer Animation II*  

23FAA341  
*Introductory Painting*  

23FAA342  
*Introductory Painting*  

23FAA343  
*Introductory Relief Printmaking*  

23FAA352  
*Introductory Relief Printmaking*  

23FAA354  
*Introductory Litho Printmaking*  
Introduction to the art and technique of hand lithography in a variety of media on stones and metal plates. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA355  
*Introductory Litho Printmaking*  
Introduction to the art and techniques of hand lithography in a variety of media on stones and metal plates. Prereq: 23FAA103, 23FAA243, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA357  
*Introductory Intaglio Printmaking*  
Beginning experiences in etching, engraving and drypoint on metal plates. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA358  
*Introductory Intaglio Printmaking*  
Beginning experiences in etching, engraving and drypoint on metal plates. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

**Fine Arts - Art**

23FAA361  
*Introductory Sculpture*  
A beginning studio course which explores the concepts, techniques, and tools involved in the creation of sculpture. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA362  
*Introductory Sculpture*  
A beginning studio course which explores the concepts, techniques, and tools involved in the creation of sculpture. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA371  
*Introductory Photography*  
Lectures and exercises in basic photographic technology and aesthetics. Prereq: 23FAA103, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA372  
*Introductory Photography*  
Lectures and exercises in basic digital photographic technology and aesthetics. A digital single lens reflex camera with manual control capability is a requirement for this class. Prereq: 23FAA101, 23FAA102, 23FAA243, 23FAA243. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA376  
*Intermediate Photography I*  

23FAA377  
*Intermediate Photography II*  

23FAA378  
*Digital Still Photography*  

23FAA381  
*Video for Artists I*  
Introduction to basic tools and concepts of video art including camewrork, lighting, sound record- ing, non-linear editing, and DVD authoring. Students complete several short video projects. Prereq: 23FAA107. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA382  
*Video for Artists II*  
Intermediate level course in techniques and concepts of video art. The class focuses on building image-sound relationships, developing camera and editing skills, and DVD authoring. Prereq: 23FAA381. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA384  
*Introduction to Media Art*  
Students are exposed to the possibilities of art making in a range of new media forms including digital stills, interactive art and web design. Prereq: 23FAA107. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA385  
*Introduction to Media Art II*  
Students are exposed to the possibilities of art making in a range of new media forms including digital stills, interactive art and web design. Prereq: 23FAA384. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA411  
*Independent Study*  
Special art projects for advanced Fine Arts majors only. Subject to acceptance of written proposal, prior to registration, by both instructor and department chair. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

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H=University Honors course.
Advanced coursework in electronic media with an emphasis on concept development, the effective expression of ideas, and refining technical skills. BoK: FA. Credit Hrs: 4.00

Advanced Electronic Arts
Advanced coursework in electronic media with an emphasis on concept development, the effective expression of ideas, and refining technical skills. BoK: FA. Credit Hrs: 4.00

Advanced Painting
In-depth studio course for exploring the creation of sculpture form for students with prior experience in sculpture. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Sculpture
In-depth studio course for exploring the creation of sculpture form for students with prior experience in sculpture. Prereq: 23FAA431, 23FAA432. BoK: FA. Credit Hrs: 4.00

Advanced Photography
Intensive studio course in specialized areas of the photo processes, with increased emphasis on conceptualization. Prereq: 23FAA431, 23FAA432. BoK: FA. Credit Hrs: 4.00

Advanced Electronic Arts
Advanced coursework in electronic media with an emphasis on concept development, the effective expression of ideas, and refining technical skills. BoK: FA. Credit Hrs: 4.00

Advanced Electronic Arts
Advanced coursework in electronic media with an emphasis on concept development, the effective expression of ideas, and refining technical skills. BoK: FA. Credit Hrs: 4.00

Advanced Electronic Arts
Advanced coursework in electronic media with an emphasis on concept development, the effective expression of ideas, and refining technical skills. BoK: FA. Credit Hrs: 4.00

Advanced Printmaking
Personal development and experimentation using various print media with an increased emphasis on concept. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Printmaking
Personal development and experimentation using various print media with an increased emphasis on concept. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Printmaking
Personal development and experimentation using various print media with an increased emphasis on concept. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Printmaking
Personal development and experimentation using various print media with an increased emphasis on concept. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Sculpture
In-depth studio course for exploring the creation of sculpture form for students with prior experience in painting. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Sculpture
In-depth studio course for exploring the creation of sculpture form for students with prior experience in painting. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Sculpture
In-depth studio course for exploring the creation of sculpture form for students with prior experience in painting. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Sculpture
In-depth studio course for exploring the creation of sculpture form for students with prior experience in painting. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Sculpture
In-depth studio course for exploring the creation of sculpture form for students with prior experience in painting. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

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In-depth studio course for exploring the creation of sculpture form for students with prior experience in painting. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Sculpture
In-depth studio course for exploring the creation of sculpture form for students with prior experience in painting. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00

Advanced Sculpture
In-depth studio course for exploring the creation of sculpture form for students with prior experience in painting. Prereq: 23FAA431, 23FAA432, 23FAA433. BoK: FA. Credit Hrs: 4.00


**Fine Arts - Art**

23FAA472  
**Advanced Photography**  
23FAA377, 23FAA378. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA473  
**Advanced Photography**  
Intensive study in specialized areas of the photo processes, with increased emphasis on conceptualization. Prereq: 23FAA376, 23FAA377, 23FAA378. BoK: FA. Credit Level: U. Credit Hrs: 4.00

23FAA520  
**Senior Thesis Project**  
This course is for the development of a "Thesis Project" in the visual arts, which culminates in exhibition for DAAPWorks. An IP (In Progress) grade will be given at the end of the autumn with a final grade to be determined at the end of the spring quarter. BoK: FA. Credit Level: U. Credit Hrs: 2.00

23FAA521  
**Senior Thesis Colloquy**  
Review and study of contemporary artistic theory combined with intense analysis of student's creative research, resulting in original thesis statement. Restricted to seniors in Fine Arts who, during the academic year the course is taken, are planning to participate in DAAPWorks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FAA524  
**Advanced Animation Art**  
Advanced work in the use of animation as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA324. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA525  
**Advanced Game Art**  
Advanced work in the use of computer games as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA325. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA526  
**Advanced Internet Art**  
Advanced work in the use of the Internet as a platform for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA326. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA527  
**Advanced Programming for Artists**  
Advanced work in the use of computer programming as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA327. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA528  
**Advanced Sound Art**  
Advanced work in the use of sound as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists in this field. Prereq: 23FAA328. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA529  
**Advanced Video for Artists**  
Advanced work in the use of video as a medium of artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA329. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

23FAA531  
**Advanced Interactive Art**  
Advanced work in the design of interactive artwork and the use of the interface as a medium of artistic expression. Studio course in which students create works of art and study the practices of professional artists working in this field. Prereq: 23FAA331. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

Senior Thesis Colloquy  
Review and study of contemporary artistic theory combined with intense analysis of student's creative research, resulting in original thesis statement. Restricted to seniors in Fine Arts who, during the academic year the course is taken, are planning to participate in DAAPWorks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**Advanced Animation Art**  
Advanced work in the use of animation as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA324. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Game Art**  
Advanced work in the use of computer games as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA325. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Internet Art**  
Advanced work in the use of the Internet as a platform for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA326. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Programming for Artists**  
Advanced work in the use of computer programming as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA327. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Sound Art**  
Advanced work in the use of sound as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists in this field. Prereq: 23FAA328. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Video for Artists**  
Advanced work in the use of video as a medium of artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA329. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Interactive Art**  
Advanced work in the design of interactive artwork and the use of the interface as a medium of artistic expression. Studio course in which students create works of art and study the practices of professional artists working in this field. Prereq: 23FAA331. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Senior Thesis Colloquy**  
Review and study of contemporary artistic theory combined with intense analysis of student's creative research, resulting in original thesis statement. Restricted to seniors in Fine Arts who, during the academic year the course is taken, are planning to participate in DAAPWorks. BoK: FA. Credit Level: U. Credit Hrs: 3.00

**Advanced Animation Art**  
Advanced work in the use of animation as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA324. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Game Art**  
Advanced work in the use of computer games as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA325. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Internet Art**  
Advanced work in the use of the Internet as a platform for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA326. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Programming for Artists**  
Advanced work in the use of computer programming as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA327. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Sound Art**  
Advanced work in the use of sound as a medium for artistic expression. Studio course in which students create works of art and study the practice of professional artists in this field. Prereq: 23FAA328. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Video for Artists**  
Advanced work in the use of video as a medium of artistic expression. Studio course in which students create works of art and study the practice of professional artists working in this field. Prereq: 23FAA329. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

**Advanced Interactive Art**  
Advanced work in the design of interactive artwork and the use of the interface as a medium of artistic expression. Studio course in which students create works of art and study the practices of professional artists working in this field. Prereq: 23FAA331. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-10.00

H—University Honors course.  
Since the start of the Great Exhibitions & the founding of the visual arts through supervised activity within the studio of a professional artist-related organization such as a gallery, museum, studio, or production facility. If working with a professional artist, students will have the opportunity to gain in depth knowledge about the work that goes into a long term project, the business aspects of being a working artist, exhibition preparation, and marketing and promotion of art work. If working for an organization, students will gain experience in practices and requirements and how they interface either with other departments or with other businesses. The student will gain an understanding of day to day operations and the interactions of colleagues within the organization. **students must pick up the guidelines for this internship in the School of Art office prior to registration of the class.**

Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

**Professional Internship**

This course provides constructive learning experiences in support of the visual arts through supervised activity within the studio of a professional artist-related organization such as a gallery, museum, studio, or production facility. If working with a professional artist, students will have the opportunity to gain in depth knowledge about the work that goes into a long term project, the business aspects of being a working artist, exhibition preparation, and marketing and promotion of art work. If working for an organization, students will gain experience in practices and requirements and how they interface either with other departments or with other businesses. The student will gain an understanding of day to day operations and the interactions of colleagues within the organization. **students must pick up the guidelines for this internship in the School of Art office prior to registration of the class.**

Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-4.00

**23FAA683 Gallery Internship**

Supervised work in professional gallery. 9 hours each week to assist in gallery preparation, installation, lighting, packing, openings, etc. Perm of Instructor. BoK: FA. Credit Level: U, G. Credit Hrs: 1.00-4.00

**23FAA717 Post-Baccalaureate Advanced Ceramics**

Handbuilding, glaze calculation and firing techniques. Increased emphasis on conceptualization. Credit Level: G. Credit Hrs: 1.00-8.00

**23FAA727 Post-Baccalaureate Advanced Drawing**

Problems in drawing as a medium of expression with an increased emphasis on conceptualization. Credit Level: G. Credit Hrs: 1.00-8.00

**23FAA737 Post-Baccalaureate Advanced Electronic Media**

Development and preparation of a film or video project, live action, computer, or drawn animation, including script writing and budgeting. Credit Level: G. Credit Hrs: 1.00-8.00

**23FAA747 Post-Baccalaureate Advanced Painting**

Personal development, invention, freedom of expression in all painting media. Credit Level: G. Credit Hrs: 1.00-8.00

**23FAA757 Post-Baccalaureate Advanced Printmaking**

Personal development and experimentation using various print media with an increased emphasis on conceptualization. Credit Level: G. Credit Hrs: 1.00-8.00

**23FAA767 Post-Baccalaureate Advanced Sculpture**

In-depth exploration in an area of stylistic and philosophical interest in sculpture. Credit Level: G. Credit Hrs: 1.00-8.00

**23FAA804 Critical History of Museums and Curating**

This course considers the changes in museum and collecting practices since the start of the Great Exhibitions & the founding of the national museums in the 19th century. Also addresses the growth in the last 30 years of artists’ curating practices & impact on exhibition content & design. Credit Level: G. Credit Hrs: 4.00

**23FAA805 Curating New Media**

Reviews the challenges faced by museums and galleries when exhibiting new media like video & digital art, as well as applications of technology in museum display. Credit Level: G. Credit Hrs: 4.00

**23FAA806 Graduate Installation Art**

Students from all disciplines develop & mount installation art works. Projects are often site-specific, collaborative, temporal, or multidisciplinary. In addition to studio work, students view & discuss works by established artists & materials relevant to the subject. Credit Level: G. Credit Hrs: 4.00

**23FAA821 Graduate Drawing**

Individual research and experimentation through projects employing a variety of drawing media. Credit Level: G. Credit Hrs: 1.00-10.00

**23FAA822 Graduate Drawing**

Individual research and experimentation through projects employing a variety of drawing media. Credit Level: G. Credit Hrs: 1.00-10.00

**23FAA823 Graduate Drawing**

Individual research and experimentation through projects employing a variety of drawing media. Credit Level: G. Credit Hrs: 1.00-10.00

**23FAA828 Graduate 3D Studio**

An interdisciplinary graduate critique and independent studio experience. Credit Level: G. Credit Hrs: 1.00-10.00

**23FAA829 Graduate 3D Studio**

An interdisciplinary graduate critique and independent studio experience. Credit Level: G. Credit Hrs: 1.00-10.00

**23FAA830 Graduate 3D Studio**

An interdisciplinary graduate critique and independent studio experience. Credit Level: G. Credit Hrs: 1.00-10.00

**23FAA831 Graduate Electronic Arts**

Graduate level work in electronic media, with an emphasis on concept development, the effective expression of ideas, and refining technical skills Credit Level: G. Credit Hrs: 1.00-10.00

**23FAA832 Graduate Electronic Arts**

Graduate level work in electronic media, with an emphasis on concept development, the effective expression of ideas, and refining technical skills Credit Level: G. Credit Hrs: 1.00-10.00

**23FAA833 Graduate Electronic Arts**

Graduate level work in electronic media, with an emphasis on concept development, the effective expression of ideas, and refining technical skills Credit Level: G. Credit Hrs: 1.00-10.00

**23FAA834 Graduate New Media**

Graduate level work in advanced production, emphasizing electronic media as an art form, developing and directing projects, and creative uses of new media. Students may explore work in a wide range of new media, including digital stills computer animation, video, installation, sound art interactive art, and other forms. Credit Level: G. Credit Hrs:
Fine Arts - Art

23FAA834
Graduate New Media
1.00-10.00

23FAA841
Graduate Painting
Individual research and experimentation through projects employing a variety of painting media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA842
Graduate Painting
Individual research and experimentation through projects employing a variety of painting media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA843
Graduate Printmaking
Individual research and experimentation through projects employing a variety of printmaking media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA851
Graduate Printmaking
Individual research and experimentation through projects employing a variety of printmaking media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA852
Graduate Printmaking
Individual research and experimentation through projects employing a variety of printmaking media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA853
Graduate Printmaking
Individual research and experimentation through projects employing a variety of printmaking media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA871
Graduate Photography
Individual research and experimentation through projects employing a variety of photographic media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA872
Graduate Photography
Individual research and experimentation through projects employing a variety of photographic media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA873
Graduate Photography
Individual research and experimentation through projects employing a variety of photographic media. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA875
Graduate Fine Arts Thesis
Work towards thesis exhibition, thesis paper, and oral defense. Credit Level: G. Credit Hrs: 4.00

23FAA888
Special Topic Graduate Seminar
Seminar in a specific topic of current relevance to graduate students in Fine Arts. Credit Level: G. Credit Hrs: 3.00

23FAA891
Independent Graduate Study
Independent study for Fine Arts graduate students. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA892
Independent Graduate Study
Independent study for Fine Arts graduate students. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-10.00

23FAA893
Independent Graduate Study
Independent study for Fine Arts graduate students. Credit Level: G. Credit Hrs: 1.00-10.00

Fine Arts - Art

23FAA894
Independent Graduate Study
Independent study for Fine Arts graduate students. Credit Level: G. Credit Hrs: 1.00-18.00

23FAA895
Teaching Workshop
Discussion of teaching methodologies and approaches to the presentation of subjects in studio, seminar, and lecture Credit Level: G. Credit Hrs: 3.00

Fashion Design

23FASH191
Fashion Show Production
Aspects of fashion show production such as fitting professional models, selection of music, themes, staging, audio-visual preparation, lineup. Final product is professional show. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH204
Design Construction
Principles in processes, methods, materials of clothing construction. Coreq: 23FASH221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH205
Design Construction
Principles in processes, methods, materials of clothing construction. Prereq: 23FASH204. Coreq: 23FASH222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH206
Fashion Design I
Introduction course in exploration of apparel design and construction process. Prereq: 23FASH205, 23FASH222, 23FASH223. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH211
Design Communication I
Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH212
Design Communication I
Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. Prereq: 23FASH211. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH213
Design Communication I
Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. Prereq: 23FASH212. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH221
Design Technology I
Fundamental principles of pattern-making. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH222
Design Technology I
Fundamental principles of pattern-making. Prereq: 23FASH221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH223
Design Technology I
Fundamental principles of pattern making. Prereq: 23FASH222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH232
History of Fashion I
History of costume from primitive ornamentation to present. Evaluation of style, role of the designer, sociological, psychological aspect of clothing in society. Open to all majors. BoK: HP., SE. Credit Level: U.
Fashion Design

23FASH232  History of Fashion I  Credit Hrs: 3.00

23FASH233  History of Fashion II  
History of costume from primitive ornamentation to present. Evaluation of style, role of the designer, sociological, psychological aspect of clothing in society. Open to all majors. Prereq: 23FASH232. BoK: HP, SE. Credit Level: U. Credit Hrs: 3.00

23FASH234  Textiles  
The history, development, marketing, uses of natural and man-made fibers. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23FASH235  Textiles  
Comprehensive study of fibers, yarn, fabrics and finishes, their development, use and serviceability. Prereq: 23FASH234. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23FASH261  Introduction to CAD  
Computer Aided Design development for the Fashion Industry. Presentation skill development. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23FASH291  Fashion Show Production  
Aspects of fashion show production such as: fitting professional models, selection of music, themes, staging, audio-visual preparation, lineup. Final product is professional show. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH350  Fashion Design II  
Exploration of apparel design and construction process. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH351  Fashion Design II  
Exploration of apparel design and construction process. Prereq: 23FASH350. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH354  Introduction to Fashion Design  
Design principles and theory as they apply to fashion design. Concentrates on the design process in use of various 2D media in design presentation. Prereq: 23FASH213. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23FASH355  Design Communication II  
Design principles and theory as they apply to fashion design in visual communication. Concentrates on croquis and on use of various media in design presentation. Prereq: 23FASH213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23FASH364  Introduction to Portfolio  
Introduction to 2-dimensional design methods. Concentration is on developing co-op portfolio and typographies for resume. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23FASH365  Design Technology II  
Fundamental techniques of draping three- dimensional pattern making. Prereq: 23FASH223, 23FASH206. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23FASH366  Design Technology II  
A continuation of draping three-dimensional pattern making. Develops a higher degree of skill in handling more complex draping projects.
Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

Graduate studies in advanced studio/lab, or thesis-related research in BoK: NA. Credit Level: U. Credit Hrs: 6.00

Concept, design, sketches, presentation boards, prototype development and presentation of a minicollection of garments. Prereq: 23FASH761. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

Product Development II
Concept design, sketches, presentation boards, prototype development and presentation of a product line for retail sales. BoK: SS. Credit Level: U. Credit Hrs: 6.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

Product Development I
Study of the process of product development as it pertains to retail. Researching, planning, developing, and presenting a product line for an identified target market with regard to styling, timing, and prices. Production options are studied and evaluated with regard to specification and quality development. Credit Level: G. Credit Hrs: 6.00

Seminar in Merchandising
Current trends and issues are researched and discussed as they relate to manufacturing and merchandising. Case study analysis in buying and merchandising. Credit Level: G. Credit Hrs: 3.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Fashion Design. Credit Level: G. Credit Hrs: 1.00-5.00

Product Construction
Principles in processes, methods, and execution of soft goods for the fashion marketplace. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Product Construction
Principles in processes, methods, and execution of soft goods for the fashion marketplace. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Design Communication I
Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Design Communication I
Fundamental principles of drawing the figure and apparel. Experimentation with variety of media and techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Design Communication I
Fundamental principles of drawing the figure and apparel. Experimentation with variety of media techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>23FDPD221</td>
<td>Product Technology I</td>
<td>3.00</td>
<td></td>
<td>Fundamental principles of pattern-making. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD222</td>
<td>Product Technology I</td>
<td>3.00</td>
<td></td>
<td>Fundamental principles of pattern-making. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD261</td>
<td>Introduction to CAD</td>
<td>3.00</td>
<td></td>
<td>Computer-aided design development for the Fashion Industry with emphasis on computer and presentation skills. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD271</td>
<td>Industry Theory and Practice</td>
<td>3.00</td>
<td></td>
<td>Comprehensive study of fashion as a business; from design theory and process, to manufacturing, to retailer and ultimately the consumer. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD272</td>
<td>Industry Theory and Practice</td>
<td>3.00</td>
<td></td>
<td>Comprehensive study of fashion as a business; from design theory and process, to manufacturing, to the retailer and ultimately the consumer. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD352</td>
<td>Fashion Buying</td>
<td>3.00</td>
<td></td>
<td>A study of retail store buying, planning, merchandising and promotion. Merchandising mathematics are emphasized in relation to profit. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD353</td>
<td>Introduction to Product Development</td>
<td>3.00</td>
<td></td>
<td>Fundamental principles of the product development process and introduction to marketing and product research, concept fashion development, trends research and design-driven product development. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD356</td>
<td>CAD Communication</td>
<td>3.00</td>
<td></td>
<td>Introductory course in computer-aided fabric design, color and pattern development and digital printing for fabric development. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD352</td>
<td>Product Development I</td>
<td>3.00</td>
<td></td>
<td>Study of the process of product development including trend analysis, brand analysis, design, merchandising and marketing. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD354</td>
<td>Product Development II</td>
<td>3.00</td>
<td></td>
<td>Study of the process of product development including product design, prototype development and technical specifications for developing a product. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD355</td>
<td>Trend Forecasting</td>
<td>3.00</td>
<td></td>
<td>Study of the theories and methodology in the field of trend forecasting and its impact on product development. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD465</td>
<td>Portfolio</td>
<td>3.00</td>
<td></td>
<td>Developing and branding a fashion product development portfolio. BoK: NA. Credit Level: U.</td>
</tr>
<tr>
<td>23FDPD552</td>
<td>Merchandising Seminar</td>
<td>3.00</td>
<td></td>
<td>Current trends and issues are researched and discussed as they relate to fashion product development. Emphasis on the line selection process, line merchandising and visual merchandising. BoK: NA. Credit Level: U.</td>
</tr>
</tbody>
</table>

BoK (Breadth of Knowledge) Coding:
- DC: Diversity & Culture
- EC: English Composition
- FA: Fine Arts
- HP: Historical Perspectives
- HU: Humanities
- LT: Literature
- NS: Natural Sciences
- QR: Quantitative Reasoning
- SE: Social & Ethical Issues
- SS: Social Sciences
The course will focus on the relationship between design and society during the past two-and-a-half centuries. The industrial and political revolutions of the eighteenth century will serve as a pivotal historic reference for the ways in which design has responded to the fundamental ideas of the modern era. Credit Level: G. Credit Hrs: 3.00

Sources of Modern Design: University Honors Scholars
Section Design, technology and society in the 19th and 20th centuries. BoK: HP., SE. Credit Level: U. Credit Hrs: 4.00

Core Topics
Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Technical Instruction Practicum
The intent of this course is to provide technical assistance and support for first year students in Design. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

Technical Instruction Practicum
The intent of this course is to provide technical assistance and support for first year students in Design. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

Technical Instruction Practicum
The intent of this course is to provide technical assistance and support for first year students in Design. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

Design Topics
Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Basic Design and Drawing. Credit Level: G. Credit Hrs: 3.00-5.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Basic Design and Drawing. Credit Level: G. Credit Hrs: 3.00-5.00

Design Graduate Studies
Graduate studies in advanced studio/lab, or thesis-related research in Basic Design and Drawing. Credit Level: G. Credit Hrs: 3.00-5.00

Graphic Design Seminar I: Skills
Explanation of printing, paper, typesetting, pre-press, and production methods. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Basic Design and Drawing. Credit Level: G. Credit Hrs: 1.00-5.00

Issues in various design topics as determined by faculty. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Disciplined free hand drawing. Representational and aesthetic concern. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Introduction to history and process of calligraphic and typographic symbology. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Text Design
Electronic manipulation of text exploring the potential for variations. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Type/Text Design I
Study of letterforms and designing with type. Aesthetics of typography. BoK: FA., SS. Credit Level: U. Credit Hrs: 3.00

Type/Text Design I
Study of letterforms and designing with type. Aesthetics of typography. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Type/Text Design I
Study of letterforms and designing with type. Aesthetics of typography. BoK: FA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Graphic Design

23GRPH272
Graphic Design Seminar II: Form
Seminar addresses issues and information related to the curricular level, social context, and form investigations. Prereq: 23GRPH271. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH301
Design Aesthetics III
Explores understanding, development, and communication of visual form. Prereq: 23GRPH202. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH311
Photo Design IV
Integration of photodesign techniques with typography, symbology, and dimension. Prereq: 23GRPH213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH321
Type/Text Design II
Legibility, multiple and sequential experiences. Interrelationships of text, heading, format, grids, and design elements. Prereq: 23GRPH223. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH272
Design Aesthetics II
Explores understanding, development, and communication of visual form. Prereq: 23GRPH202. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH341
Communication Design I
Consideration of levels of communication, symbology, development of concept, environment, and audience. Prereq: 23GRPH202. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH342
Communication Design II
Consideration of levels of communication, symbology, development of concept, environment, and audience. Prereq: 23GRPH341. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH371
Graphic Design Seminar III
Seminar addresses issues and information related to the curricular level, social context, and content investigations. Prereq: 23GRPH272. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH372
Graphic Design Seminar IV
Seminar addresses issues and information related to the level, social context, and content investigations. Prereq: 23GRPH371. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH388
Independent Studies
Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23GRPH389
Independent Studies
Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

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Graphic Design

23GRPH441
Communication Design III
Special attention to the problem-solving process and inclusive methods of visual communication. Prereq: 23GRPH342. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH442
Communication Design IV
Special attention to the problem-solving process and inclusive methods of visual communication. Prereq: 23GRPH441. BoK: FA, SS. Credit Level: U. Credit Hrs: 3.00

23GRPH451
Design Systems I
Development of visual programs for sequential viewing. Experimentation with slide presentation, video tape, film, and multimedia systems. Prereq: 23GRPH301. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH452
Design Systems II
Development of visual programs for sequential viewing. Experimentation with slide presentation, video tape, film, and multimedia systems. Prereq: 23GRPH451. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH471
Graphic Design Seminar V: Concept
Seminar addresses issues and information related to curricular level, social context, and concept investigations. Prereq: 23GRPH372. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH472
Graphic Design Seminar VI: Concept
Seminar addresses issues and information related to curricular level, social context, and concept investigation. Prereq: 23GRPH471. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH488
Independent Studies
Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23GRPH489
Independent Studies
Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23GRPH551
Design Systems III
Communication design problems requiring research, analysis, execution, and evaluation. Prereq: 23GRPH452. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH552
Design Systems IV
Communication design problems requiring research, analysis, execution, and evaluation. Prereq: 23GRPH551. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23GRPH561
Design Methodology: Studio
Research, procedure and social analysis in relationship to communication theory and practice. Prereq: 23GRPH452. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23GRPH562
Design Methodology: Studio
Research, procedure and social analysis in relationship to communication theory and practice. Prereq: 23GRPH561. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H—University Honors course.
Transportation Design Communications

23IDTR311
Transportation Design Communications
Studio exploring advanced visual communications in sketching and rendering techniques and the introduction of two-dimensional computer rendering techniques. Prereq: 23IDTR213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR312
Transportation Design Communications
This course continues to explore advanced visual communications in sketching and rendering techniques and the introduction of two-dimensional computer rendering techniques. Prereq: 23IDTR311. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR321
Design Technology Transportation
Advanced use of computer based three-dimensional design techniques in the vehicle design process. Prereq: 23IDTR223. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR331
Seminar: Theory of Transportation Design I
Lecture-seminar introducing principles and theories of design, transportation design, systematic design process, problem solving and creativity. Perm of Instructor. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23IDTR332
Seminar: Theory of Transportation Design II
Lecture-seminar in systematic design process, design research methods, and design issues in social responsibility. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23IDTR341
Topical Studio III
Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Figure Drawing ID

23IDTR300
Figure Drawing ID
Students learn traditional and contemporary figure drawing techniques. Prereq: 23IDTR213. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Independent Studies

23GRPH588
Independent Studies
Individual project in collaboration with a faculty member on subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

History of Graphic Design

23GRPH751
History of Graphic Design
Review of Graphic Design history from the 1890s to 1990s. Credit Level: G. Credit Hrs: 4.00

23GRPH752
History of Graphic Design 2
Review of Graphic Design history from the 1890s to 1990s. Credit Level: G. Credit Hrs: 4.00

Industrial Design: Transportation

23IDTR223
Design Technology Transportation
This studio includes computer based three-dimensional design techniques used in the vehicle design process. Prereq: 23INDL222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR263
Seminar: The Making of Things III
Introduction to materials, production, fabrication, and assembly methods for modeling and prototyping of proposed designs with transportation focus. Course content includes lecture, discussion, demonstrations, field trips, hands-on shop experience and certification in the use of specific shop tools. Prereq: 23INDL262. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR300
Figure Drawing ID
Students learn traditional and contemporary figure drawing techniques. Prereq: 23IDTR213. BoK: FA. Credit Level: U. Credit Hrs: 3.00
Industrial Design: Transportation

23IDTR342 Topical Studio III
Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR401 Transportation Design Studio
Transportation design students develop solutions to problems that are varied in scope and nature. Emphasis is placed on contextual analysis, design process, and systems. Prereq: 23IDTR302. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR402 Transportation Design Studio
Advanced transportation design students continue to research and develop solutions to problems that are varied in scope and nature. Emphasis is placed on contextual analysis, design process, technology, systems and marketing Prereq: 23IDTR401. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR411 Design Communications for Transportation
Advanced exploration of sketching and rendering techniques in various media. Prereq: 23IDTR312. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR412 Design Communications for Transportation
Continued advanced exploration of sketching and rendering techniques in various media. Prereq: 23IDTR411. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23IDTR441 Topical Studio IV
Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR442 Topical Design IV
Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23IDTR461 Materials and Processes for Transportation
Vehicle packaging introduces students to requirements that must be incorporated and adhered to in transportation design. Prereq: 23INDL461. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23IDTR462 Materials and Processes for Transportation
Lecture course exploring materials and manufacturing processes used in the transportation industry. Prereq: 23INDL461. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23IDTR471 Human Factors in Transportation Design
Human physical, psychological, and sociological properties, as the basis for transportation design. BoK: HP, SE. Credit Level: U. Credit Hrs: 3.00

23IDTR472 Human Factors for Transportation
Human physical, psychological, and sociological properties as the basis for transportation design. Prereq: 23INDL471. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

23IDTR501 Transportation Capstone Studio
Senior capstone thesis research and ideation development. Prereq: 23IDTR402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Industrial Design Capstone Studio
Conceptual and design development of senior capstone thesis. Prereq: 23IDTR501. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Industrial Design Capstone Studio
Advanced conceptual design development of senior capstone thesis. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Transportation Design Communications
Studio of advanced techniques in visual communications meeting professional standards, to include portfolio compilation and presentation and use of computer techniques and applications. Prereq: 23IDTR412. BoK: FA. Credit Level: U. Credit Hrs: 3.00

Transportation Design Communications
Studio of advanced techniques in visual communications meeting professional standards, with emphasis on portfolio compilation and presentation and the use of computer techniques and applications. Prereq: 23IDTR511. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Seminar: Social Issues in Design
An elective lecture/seminar or studio based on special topics related to social, economic, and environmental issues in transportation design. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Topical Studio V
Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Topical Studio V
Transportation Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Career Design and Professional Development
Information about career planning and job-seeking, including the development of cover letters, resumes, portfolios and the interview process. Practicing design professionals may serve as guest speakers to address topics relevant to the practice of Transportation Design and Industrial Design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Professional Mentorship
This course is a series of lectures and presentations from a broad range of professional experts within the field of transportation design. These professionals expose students to different areas of expertise within the field including career planning, job seeking and portfolio packaging. Prereq: 23IDTR501. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Industrial Design
Industrial Design
Problems establishing relationships among aesthetic fundamentals, including considerations of structure, function, materials, process. Prereq: 23FDST101, 23FDST102, 23FDST103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Industrial Design

23INDL202
Industrial Design
Problems establishing relationships among aesthetic fundamentals, including considerations of structure, function, materials, process. Prereq: 23INDL201, 23FDST103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL203
Industrial Design
Problems establishing relationships among aesthetic fundamentals, including considerations of structure, function, materials, process. Prereq: 23INDL202, 23FDST103. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL211
Design Communications
In Design Communications students learn to express their design ideas in a concise, compelling and efficient way. Emphasis is on dry media such as pastels, marker and colored pencils. Some of the papers used include vellum, bond paper and half- tone paper. Students are also instructed to complete assignments digitally, the importance of accurate perspective and clear rendering of form is stressed. This course covers industrial design 2D visualization techniques for sophomore-level students. Prereq: 23FDST123. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL212
Design Communications
This Design Communication course covers many traditional industrial design visualization techniques. Emphasis is on developing the ability to efficiently communicate design ideas in a convincing manner using perspective, color, value and lighting to define form. Students are introduced to the importance of research, advanced technologies and benchmarking. Prereq: 23INDL211, 23FDST103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL213
Design Communications
Advanced Sophomore Design Communication courses are designed to strengthen the product design student's electronic drawing and rendering skills to a professional level while at the same time fostering conceptual thinking. Projects of two or four week durations are undertaken covering a wide range of subjects from components to a complete product. Prereq: 23INDL212. BoK: FA. Credit Level: U. Credit Hrs: 3.00

23INDL221
Design Technology
Introduction to computer based three dimensional graphics techniques. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL222
Design Technology
This course covers many traditional industrial design visualization techniques. Emphasis is on developing the ability to efficiently communicate design ideas in a convincing manner using perspective, color, value and lighting to define form. Students are introduced to the importance of research, advanced technologies and benchmarking. Prereq: 23INDL221. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL223
Design Technology
This course covers many traditional industrial design visualization techniques. Emphasis is on developing the ability to efficiently communicate design ideas in a convincing manner using perspective, color, value and lighting to define form. Students are introduced to the importance of research, advanced technologies and benchmarking. Prereq: 23INDL222. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INDL251
History of Industrial Design
Factors influencing the form and technology of man-made objects from pre-industrial revolution period to twentieth century with emphasis on
### Industrial Design

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>23INDL332</td>
<td>Seminar: Theory of Industrial Design II</td>
<td>Lecture-seminar in systematic design process, design research methods, and design issues in social responsibility. Prereq: 23INDL331. BoK: SS. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL341</td>
<td>Topical Studio III</td>
<td>Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL342</td>
<td>Topical Studio III</td>
<td>Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL351</td>
<td>History of Industrial Design</td>
<td>Factors influencing the form and technology of man-made objects from pre-industrial revolution period to twenty-first century with emphasis on evolution of the practice of industrial design. Perm of Instructor. BoK: HP, SE. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL352</td>
<td>Theory of Industrial Design</td>
<td>Lecture-seminar in systematic design process, problem solving and creativity. Prereq: 23INDL351. BoK: SS. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL362</td>
<td>Materials and Processes</td>
<td>Survey of materials, production, and assembly methods utilized in the mass production of plastic parts. Design considerations used to select appropriate technology. Lecture, discussion, shop experience, inspection trips. Prereq: 23INDL361. BoK: NS. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL391</td>
<td>Independent Studies</td>
<td>Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
</tr>
<tr>
<td>23INDL392</td>
<td>Independent Studies</td>
<td>Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>23INDL401</td>
<td>Industrial Design</td>
<td>Complex problems in industrial design, varied in scope and nature, emphasizing contextual analysis, design process, systems, and professional competence. Prereq: 23INDL302. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL402</td>
<td>Industrial Design</td>
<td>Complex problems in industrial design, varied in scope and nature, emphasizing contextual analysis, design process, systems, and professional competence. Prereq: 23INDL401. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL411</td>
<td>Design Communications</td>
<td>Continued exploration of sketching and rendering techniques and media. Prereq: 23INDL312. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL412</td>
<td>Design Communications</td>
<td>Continued exploration of sketching and rendering techniques and media. Prereq: 23INDL312. BoK: FA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL431</td>
<td>Design Seminar</td>
<td>An elective lecture or studio based on special topics developed by faculty or students. Prereq: 23INDL203. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>23INDL432</td>
<td>Design Seminar</td>
<td>An elective lecture or studio based on special topics developed by faculty or students. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>23INDL441</td>
<td>Topical Studio IV</td>
<td>Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL442</td>
<td>Topical Studio IV</td>
<td>Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL461</td>
<td>Materials and Processes</td>
<td>Survey of materials, production, and assembly methods utilized in the mass production of metal parts. Design considerations used to select appropriate technology. Lecture, discussion, shop experience, inspection trips. Prereq: 23INDL361, 23INDL362. BoK: NS. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL462</td>
<td>Materials and Processes</td>
<td>Survey of materials, production, and assembly methods utilized in the mass production of metal parts. Design considerations used to select appropriate technology. Lecture, discussion, shop experience, inspection trips. Prereq: 23INDL461. BoK: NS. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL471</td>
<td>Human Factors in Industrial Design</td>
<td>Problem oriented course covering concepts of human factors, science, systems and analysis as applied to consumer products. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL472</td>
<td>Human Factors in Design</td>
<td>Human physical, psychological, and sociological properties as the basis for design. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00</td>
</tr>
<tr>
<td>23INDL473</td>
<td>Theory of Industrial Design II</td>
<td>Lecture-Seminar exploring methods and procedures pertaining to current studio work. Prereq: 23INDL352. BoK: SS. Credit Level: U. Credit Hrs: 2.00</td>
</tr>
<tr>
<td>23INDL474</td>
<td>Theory of Industrial Design II</td>
<td>Lecture-Seminar exploring methods and procedures pertaining to current studio work. Prereq: 23INDL352. BoK: SS. Credit Level: U. Credit Hrs: 2.00</td>
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<tr>
<td>23INDL484</td>
<td>Design Technology III</td>
<td>Basic computer graphics and problem solving techniques using departmental and college computer facilities. Prereq: 23INDL383. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL491</td>
<td>Independent Studies</td>
<td>Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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</tbody>
</table>

H=University Honors course.
### Industrial Design

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<thead>
<tr>
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<th>Description</th>
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<th>Credit Level</th>
<th>Notes</th>
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<tbody>
<tr>
<td>23INDL492</td>
<td>Independent Studies</td>
<td>Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>23INDL501</td>
<td>Industrial Design</td>
<td>Undergraduate design thesis supplemented by a variety of short problems. Prereq: 23INDL402. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL502</td>
<td>Industrial Design</td>
<td>Undergraduate design thesis supplemented by a variety of short problems. Prereq: 23INDL501. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL511</td>
<td>Design Communications</td>
<td>Projects combining advanced techniques in visual communication, advanced portfolio compilation and presentation. Prereq: 23INDL412. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL512</td>
<td>Design Communications</td>
<td>Projects combining advanced techniques in visual communication, advanced portfolio compilation and presentation. Prereq: 23INDL511. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL531</td>
<td>Design Seminar</td>
<td>An elective lecture or studio based on special topics developed by faculty or students. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL532</td>
<td>Design Seminar</td>
<td>An elective lecture or studio based on special topics developed by faculty or students. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>23INDL541</td>
<td>Topical Studio V</td>
<td>Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL542</td>
<td>Topical Studio V</td>
<td>Industrial Design Studio focused on specific topic in a collaborative, multi-disciplinary format, most frequently with a corporate partner. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL581</td>
<td>Career Design and Professional Development</td>
<td>Information about career planning and job- seeking, including the development of cover letters, resumes, portfolios and the interview process. Practicing design professionals serve as guest speakers to address topics relevant to the practice of Industrial Design. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL582</td>
<td>Career Design and Professional Development</td>
<td>Information about career planning and job- seeking, including the development of cover letters, resumes, portfolios and the interview process. Practicing design professionals serve as guest speakers to address topics relevant to the practice of Industrial Design. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
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<tr>
<td>23INDL591</td>
<td>Independent Studies</td>
<td>Individual project in collaboration with a faculty member on a subject of mutual interest; based on written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00</td>
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### Human Factors in Design

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Hrs.</th>
<th>Prereq</th>
<th>BoK</th>
<th>Credit Level</th>
<th>Notes</th>
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<tbody>
<tr>
<td>23INDL675</td>
<td>Human Factors in Design</td>
<td>Human physical, psychological, and sociological properties as the basis for design. BoK: NS., SE. Credit Level: U, G. Credit Hrs: 3.00</td>
<td></td>
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<td>U</td>
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</tr>
<tr>
<td>23INDL682</td>
<td>Design Technology</td>
<td>Experimental projects including computer simulation, intermediate computer graphics, and approaches to automated design. Credit Level: G. Credit Hrs: 1.00-3.00</td>
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</tbody>
</table>

### Design Graduate Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Hrs.</th>
<th>Prereq</th>
<th>BoK</th>
<th>Credit Level</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>23INDL731</td>
<td>Design Graduate Studies</td>
<td>Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00</td>
<td></td>
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<tr>
<td>23INDL732</td>
<td>Design Graduate Studies</td>
<td>Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00</td>
<td></td>
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<tr>
<td>23INDL733</td>
<td>Design Graduate Studies</td>
<td>Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00</td>
<td></td>
<td></td>
<td>NA</td>
<td>G</td>
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<tr>
<td>23INDL751</td>
<td>Advanced History of Industrial Design</td>
<td>Factors influencing the form and technology of man-made objects from pre-industrial revolution period to twentieth century with emphasis on evolution of practice of industrial design. Credit Level: G. Credit Hrs: 1.00-4.00</td>
<td></td>
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<tr>
<td>23INDL752</td>
<td>Advanced History of Industrial Design</td>
<td>Factors influencing the form and technology of man-made objects from pre-industrial revolution period to twentieth century with emphasis on evolution of practice of industrial design. Credit Level: G. Credit Hrs: 1.00-4.00</td>
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<tr>
<td>23INDL775</td>
<td>Human Factors in Design</td>
<td>Human physical, psychological, and sociological properties as the basis for design. Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>23INDL831</td>
<td>Design Graduate Studies</td>
<td>Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00</td>
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<tr>
<td>23INDL832</td>
<td>Design Graduate Studies</td>
<td>Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00</td>
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<tr>
<td>23INDL833</td>
<td>Design Graduate Studies</td>
<td>Graduate studies in advanced studio/lab, or thesis-related research in Industrial Design. Credit Level: G. Credit Hrs: 1.00-5.00</td>
<td></td>
<td></td>
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### Interior Design

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Hrs.</th>
<th>Prereq</th>
<th>BoK</th>
<th>Credit Level</th>
<th>Notes</th>
</tr>
</thead>
</table>

H=University Honors course.

BoK (Breadth of Knowledge) Coding:
Interior Design

23INTD203  
Interior Content Studio  
Creative problems of medium scale space planning and design, stressing programming as well as space planning techniques. Prereq: 23INTD202. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

23INTD205  
Communication Skills  
Fundamentals of accurate delineation through exercises in mechanical perspective and freehand sketching in limited media. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD217  
Place and Dwelling  
This interdisciplinary course focuses on the complex relationships between the activities and psychological dimensions of home place and the physical spaces and representational images which serve them. Prereq: 23SAID201. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

23INTD223  
Communication Skills II  

23INTD225  
Introduction to Computer Graphics  
Continuation of computer graphics 23SAID193. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23INTD269  
Interior Design Materials and Construction  
Specific applications related to interior construction, materials, and detailing. Prereq: 23SAID201. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD301  
Interior Design Studio 3: Hospitality Design  
Design problems involving hospitality design in restaurants and hotels, and other public interiors such as resorts, convention centers, and other facilities for entertainment. Emphasis is placed on space planning, sequencing of spaces, fixture design and details, signage and logo design, materials and texture, and furnishings and equipment within nonresidential, public interiors oriented to the establishment of comfort, pleasure and entertaining. Project design assignments include a broad range of spatial and theme types from hotels, restaurants, and spas, to historic interiors for specialized clientele. Prereq: 23INTD203. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

23INTD304  
Graphic Representation 3  
Advanced projects combining several rendering techniques in a variety of media applied to delineating interior space. Prereq: 23INTD202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD327  
History of Interior Design 1  
Beginnings of a comparative analysis of history and architecture as related to interior environments. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23INTD328  
History of Interior Design 2  
Continuation of comparative analysis of history and architecture as related to interior environments. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23INTD342  
Interior Design Content Studio  
Creative problems of a larger scope with special emphasis on architectural considerations. Prereq: 23INTD301. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

23INTD364  
Millwork  
Studies related to the joining of dissimilar materials; exercises to develop proficiency in casework and millwork design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD366  
Interior Design Fiber Base Materials  
The uses of natural and man-made fiber base materials. Analysis, construction, usage, and specifications related to textiles and fabric materials applied to interior design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD388  
Independent Studies  
Individual project in collaboration with a faculty member on a subject of mutual interest based on fully detailed written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INTD389  
Independent Studies  
Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INTD401  
Interior Design Studio 4: Retail Design  
Design problems involving commercial retail design and issues of store planning in commercial retail environments. Particular emphasis is placed on space planning, sequencing of spaces, fixture design and details, lighting, signage and logo design, materials and texture, and furnishings and equipment within nonresidential, public interiors devoted to the retailing of commercial products. Project design assignments of retail spaces where a range of appeal and service may be utilized as a subject type for commercial contract design services and solutions are required. A broad range of commercial retail, from specialty to large chain retail and showrooms are offered. Prereq: 23INTD301. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

23INTD414  
Furniture Design Seminar  
World views into the marketing and production of furniture with focus on the technologies and material processes employed throughout world markets, formulating cross-cultural connections between design products and economic forces and resources in the production of contemporary furniture using the case-study format. BoK: SE. Credit Level: U. Credit Hrs: 3.00

23INTD439  
Interior Design Programming and Research  
Programming: Introduction to planning procedures and program development for interior design. Design Research: Individual study and research directed toward development of a program for the terminal senior design project. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD442  
Interior Design Content Studio  
Problems involving design of commercial and institutional interiors with emphasis on space analysis and planning and coordination of furnishings and equipment. Prereq: 23INTD401. BoK: FA, QR. Credit Level: U. Credit Hrs: 6.00

23INTD455  
Interior Design Theory IV  
Directed elective from university, college and department offerings. Examines interior design and design theories; intellectual contributions as well as cultural, social, and historical events which contribute to the development and definition of interior design and interior space. BoK: HU, QR. Credit Level: U. Credit Hrs: 3.00

23INTD487  
Lighting  
Principles and techniques of power distribution, lighting, and luminaire design with emphasis on lighting effects and methods. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.  
Interior Design

23INTD487
Lighting
Level: U. Credit Hrs: 3.00

23INTD488
Independent Studies
Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INTD489
Independent Studies
Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23INTD501
Interior Design Senior Project Studio 1
Comprehensive project summarizing principles and techniques of design applied to the student's chosen project developed from design research. Prereq: 23INTD401. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23INTD502
Interior Design Senior Project Studio 2
Summarization of principles and techniques of design applied to a major problem of the student's own choosing. Prereq: 23INTD501. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23INTD523
Communication Skills V
Study of exhibition systems and environmental graphics as applied to the exhibit of senior project studio work. BoK: FA. Credit Level: U. Credit Hrs: 2.00

23INTD537
Professional Practice 2
Professional aspects of interior design practice, including business law, trade relations, office procedures and estimating. Prereq: 23INTD401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD555
Interior Specifications
Introduction to the principles and methods of interior design specifications and their relationship to contract documents. Prereq: 23INTD202. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23INTD588
Independent Studies
Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

23INTD589
Independent Studies
Individual project in collaboration with a faculty member on a subject of mutual interest based on a fully detailed written proposal or for use by senior students participating in mentoring program with first-year students. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

Planning

23PLAN111
Principles of Planning Design Graphic Communication I
Skills development in the use of drafting equipment, letter forms, basic photography, color conceptual diagrams, and report graphics. BoK: NA. Credit Level: U. Credit Hrs: 5.00

23PLAN112
Principles of Planning Design Graphic Communication II
Skills development in flowcharts, axonometric, and perspective drawings, freehand sketching, model making, audio, film, video, and multimedia techniques. BoK: NA. Credit Level: U. Credit Hrs: 5.00

23PLAN113
Principles of Planning Design Graphic Communication III
Skills development in preparation of a series of analytical planning drawings, and maps including base maps, land use, building conditions, movement systems, community facilities, figure ground, image, redesign, and development BoK: NA. Credit Level: U. Credit Hrs: 5.00

23PLAN115
Introduction to Urban Planning
Survey of factors influencing development of cities. Introduction to planning goals, philosophy, concepts, processes, administration, literature, and history. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

23PLAN203
Principles of Planning Design III/Lecture
Lecture portion of man-environment relationships, emphasis on environmental structure, social structure, decision process. Coreq: 23PLAN213. Prereq.: 23PLAN112. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23PLAN207
Land Use Controls
The theory, practice and impacts of zoning, growth management, and other techniques of land use control. Methods and legal constraints to developing land use plans and land use development ordinances. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23PLAN211
Site Analysis, Site Planning and Design
Investigation of two- and three-dimensional basic design principles; color; human physiological constraints, basic man-environment relationships. Studio/Seminar. Prereq: 23PLAN111. BoK: FA, SS. Credit Level: U. Credit Hrs: 5.00

23PLAN212
Planning Design Studio: Neighborhood/District
Consideration of function requirements; emphasis on a problem solving and analytical procedures. Prereq: 23PLAN112. BoK: FA, SS. Credit Level: U. Credit Hrs: 5.00

23PLAN213
Principles of Planning Design III
Man-environment relationships, emphasis on environmental structure, social structure, decision process. Studio/Seminar. Prereq: 23PLAN203. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN247
Planning Study Abroad Seminar
Selected topics and travel experience designed to introduce students to the nature of university life to globalization issues, and to several disciplines and/or professions through an abroad experience. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 4.00

23PLAN251
Site Planning
Factors influencing site development and site analysis. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN254
Introduction to GIS Applications in Planning
An introduction to geographic information systems and applications in planning. A hands-on laboratory is included (priority given to planning students. Any slots left available will be filled on a first come first served basis) BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN255
Computer Graphics in Planning
This course uses CAD to create three-dimensional models and a presentation graphics program to prepare for professional setting presentations of CAD models. Prereq: 23PLAN254. BoK: NA. Credit Level: U. Credit Hrs: 3.00
23PLAN301
Local Planning Resources I
Mentor program to familiarize new urban planning students with planning resources in the region. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-2.00

23PLAN302
Local Planning Resources II
Mentor program to familiarize new urban planning students with planning resources in the region. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-2.00

23PLAN303
Planning Applications of Economic Concepts
Provide an overview of basic economic concepts and their application to selected urban and regional planning issues. Students will have a basic knowledge of macro and micro economic concepts and will be able to apply them to important urban issues. Prereq: 15ECON101, 15ECON102. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23PLAN331
Planning Design Studio: Comprehensive/Region
Variable content associated with studio problems Prereq: 23PLAN111. BoK: FA, SS. Credit Level: U. Credit Hrs: 5.00

23PLAN341
Planning IIa/Studio
Student team activity on a particular planning problem. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN345
Planning Statistics I
A computer-based course that covers basic research methods related to statistics, measurement principles, descriptive statistics, and elementary inductive statistics. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23PLAN346
Planning Statistics II
A continuation of Statistics I that covers basic tests of significance for multiple samples using nominal, ordinal, and ratio scale data. Coreq: 23PLAN345. BoK: QR. Credit Level: U. Credit Hrs: 3.00

23PLAN351
Understanding the Urban Environment
Lecture and field trips using the Cincinnati region to demonstrate and explain how cities are designed. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23PLAN352
Understanding the Urban Environment
Lecture and field trips using the Cincinnati region to explain the organizational aspects of the city. BoK: SS. Credit Level: U. Credit Hrs: 3.00

23PLAN375
Organization Theory
Introduction to the structures and dynamics of formal organizations; organizational theories and contexts in which organizations operate. A service learning course BoK: SS, SE. Credit

23PLAN397
Film and the Global Village: Studies of Development in Africa, Asia, and Latin America
Introduction to urban problems in the Third World, which uses documentary videos to provide students with a vivid image of the places and issues of urban Africa, Asia and Latin America BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

23PLAN431
Planning IVa/Seminar
Variable content associated with studio problem. BoK: NA. Credit Level: U. Credit Hrs: 2.00

Planning
23PLAN441
Planning Design Studio: Topical
Student team activity on a particular planning problem Prereq: 23PLAN331. BoK: FA, SS. Credit Level: U. Credit Hrs: 5.00

23PLAN511
Independent Study in Community Planning
Subject outlined by student and accepted for guidance by a member of the planning faculty BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23PLAN512
Independent Study in Community Planning
Subject outlined by student and accepted for guidance by a member of the planning faculty. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23PLAN513
Independent Study in Community Planning
Subject outlined by student and accepted for guidance by a member of the planning faculty BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23PLAN514
Independent Study in Community Planning
Subject outlined by student and accepted for guidance by a member of the planning faculty BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

23PLAN545
Methods of Research I for Planners
Logic of social research methods, survey research, ethics of research and methods of evaluation research Prereq: 23PLAN345, 23PLAN346. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN546
Methods of Research II for Planners
Research methods related to planning and human services delivery, including demographic analysis, economic analysis and use analysis, and transportation analysis Prereq: 23PLAN545. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN549
Planning Abroad Studio
Individual and group studio project to address a planning issues in a foreign setting BoK: NA. Credit Level: U. Credit Hrs: 0.00-18.00

23PLAN550
Exchange Study
Special program of study abroad. Open only on selected students. Requires approval of School Director BoK: NA. Credit Level: U. Credit Hrs: 1.00-18.00

23PLAN553
Urban Planning Law
Survey of the legal, constitutional, legislative, and administrative concepts, controls, regulations, and procedures basic to urban planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN563
Theory of Planning
Survey of planning theory; examines planning theory and intellectual contributions to planning principles and implementation; studies the generic nature of planning BoK: SS. Credit Level: U. Credit Hrs: 3.00

23PLAN577
Ethical Issues in Planning
This applied ethics course provides a set of gener al ethical tools that can be used to analyze ethical issues faced by citizens and by planners. Case studies and ethic codes of the American Institute of Certified Planners will be discussed BoK: SE. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Planning

23PLAN578
Senior Problem Proposal
Guidance in the preparation of acceptable proposal for the Senior Problem. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00

23PLAN579
Social Justice and the City
Nature of city life. Examination of different perspectives on the meaning and value of the city; living good life, responsibilities of political leadership, poverty, and social and economic equality. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

23PLAN580
Introduction to Geographic Information Systems.
Fundamental understanding of GIS, software availability, hardware configurations, database management, GIS project implementation, and a wide variety of issues associated with application of GIS. Included is a hands-on laboratory. Prereq: 23PLAN255. BoK: NA. Credit Level: U. Credit Hrs: 4.00

23PLAN581
GSI Planning Applications
Advanced GIS concepts and skills and their applications to planning issues that require geographic data analysis. Student projects will be produced using advanced GIS analytical function Prereq: 23PLAN254, 23PLAN580. BoK: NA. Credit Level: U. Credit Hrs: 4.00

23PLAN584
Finance and Budgeting for Planners
Public budgeting and finance for the urban planner. Prereq: 15ECON101, 15ECON102, 23PLAN303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN588
Senior Problem Research/Lecture
Problem verification and goal setting leading to solution alternative selection Prereq: 23PLAN578. Coreq: 23PLAN598. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23PLAN589
Senior Planning Problem Synthesis/Lecture
Development of implementation plan for the selected alternative of the research phase. Prereq: 23PLAN578. Coreq: 23PLAN599. BoK: NA. Credit Level: U. Credit Hrs: 2.00

23PLAN591
Independent Study in Urban Planning
Subject outlined by student and accepted for guidance by a member of the planning faculty BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

23PLAN592
Mediation Skills
Introduction to the theories and practice of conflict intervention. Focus on mediation of different kinds of disputes. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

23PLAN598
Senior Planning Problem Research/Studio
Problem verification and goal setting leading to solution alternative selection Prereq: 23PLAN578, 23PLAN598. Coreq: 23PLAN599. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN599
Senior Planning Problem Synthesis/Studio
Development of implementation plan for the selected alternative of the research phase. Prereq: 23PLAN578, 23PLAN598. Coreq: 23PLAN599. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN603
Environmental Resource Analysis
Concepts, issues, and processes within the context of policy development for land use planning and resource management at federal, state, and local levels. BoK: NS., SS. Credit Level: U. G. Credit Hrs: 3.00

Planning

23PLAN604
Principles of Urban Design
Concepts, methods, analytical techniques, and processes fundamental to the practice of urban design. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN605
Workshop in Land Use/Urban Design/Environmental Planning
Application of generic and physical planning methods to a physical planning problem, based on real clients BoK: NA. Credit Level: U, G. Credit Hrs: 3.00-5.00

23PLAN606
Environmental Processes and Programs
Analysis of environmental processes and various local, regional, state, national, and international programs to address environmental problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23PLAN608
Seminar:
Review and discussion of literature from ancient through contemporary periods, dealing with issues critical to modern practice. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

23PLAN609
Environmental Planning and Policy
Public decision-making framework for environmental problems and major land, air and water management programs in the United States. Emphasis on planning strategies and management techniques. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN610
Comprehensive Planning
A thorough review of the major steps involved in the production of a municipal comprehensive plan. Also intended to give students a better understanding of the practical and political dimensions involved in the master planning process BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN612
Planning and Implementation of Planned Communities
The course presents the history, social characteristics, economic foundations and physical forms of planned communities, especially in the Midwest. It starts with 18th and 19th century religious and utopian communities established by European communities and then concentrates on planned town experiments by benevolent capitalists, the federal government, and private developers. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

23PLAN620
Special Topics in Planning
A study of priority issues in planning, processes, planning administration, implementation, or evaluation BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN621
Special Topics in Planning
Study of priority issues in planning processes, planning administration, implementation or evaluation BoK: SS. Credit Level: U, G. Credit Hrs: 2.00-4.00

23PLAN622
Special Topics in Planning
Study of priority issues in planning processes, planning administration, implementation or evaluation BoK: SS. Credit Level: U, G. Credit Hrs: 2.00-4.00

23PLAN623
Special Topics in Planning
Study of priority issues in planning processes, planning administration, implementation or evaluation BoK: SS. Credit Level: U, G. Credit Hrs: 2.00-4.00

H=University Honors course.
Housing Systems
Housing viewed as social and economic, as market commodity and public provision, to be planned in relation to land use and public facilities. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Urban Lobbying I: Issues
Guest seminars; lobbying for community and human services needs, influencing legislation, allocation of resources, media techniques. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00

Urban Lobbying II: Communications
Communicating community problems and human services needs; field experiences, public media critiques, teaching, consulting. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00

Urban Lobbying III: Advocacy
Student-led presentations, projects on urban issues, community communication techniques. BoK: SS., DC. Credit Level: U, G. Credit Hrs: 3.00

Urban Spatial Structure
Investigation of political, social and economic determinants of the use of urban land. Different theories are discussed and the contributions of various disciplines to a variety of general themes on spatial structure are explored. Prereq: 23PLAN303. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

Politics of Implementation
Examination of problems for implementation of urban plans. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

Land Use and Environmental Dispute Resolution
Examination of the relationship among land use, planning, public policy, and the environmental agenda. Focus on environmental justice and the ways in which environmental dispute can be lessened or resolved. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

Transportation Planning
Course presents the significance that transportation plays in the development of urban areas, its historical context, its constituent and necessary interconnected parts, its current problems, its future as mandated by U.S. federal regulations and the role the urban planner should play in the future of transportation planning. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Transportation Demand Forecasting I
Fundamental concepts and theories of travel demand forecasting process; aggregate travel demand models; trip generation, trip distribution, model split network assignment. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Transportation Demand Forecasting II
Fundamental concepts and theories of travel demand forecasting process; aggregate travel demand models; trip generation, trip distribution, model split network assignment. Prereq: 23PLAN659. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

History of Urban Spatial Environment
Examines the history of urban spaces/places as results of cultural patterning. Utilizes cross-sectional analysis. BoK: HP. Credit Level: U, G. Credit Hrs: 3.00

History of Urban Form
Examines specific examples of urban form through history. Uses developmental analysis. BoK: FA. Credit Level: U, G. Credit Hrs: 3.00

Highway Engineering
Overview from programming through design to construction. Coverage of design controls and standards alignment and grade line, typical sections, geometric design, design with COGO, surveying, and mapping intersections and channelization, cross sections, and earthwork, drainage, and right of way, safety criteria maintenance of traffic, contract documents, legal, and environmental considerations. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Traffic Engineering
Operation of transportation systems; traffic surveys, and studies; laws and ordinances; traffic control devices, including signs, pavement marking and traffic signals; speed capacity analysis. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Computer Methods in Transportation
Use of computers to analyze traffic data and interpret models, use of current microcomputer software for capacity analysis and signal timing and traffic signals; signal systems, speed, and capacity analysis. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Planning Issues in Developing Nations
Overview of issues of urban and regional development in developing nations, with readings from various disciplines topics include theories of development, processes of urbanization, immigration, housing, urban services, environment, regional development, and planning and policy repositions. BoK: DC., SE. Credit Level: U, G. Credit Hrs: 3.00

Methods in International Development Planning II
Issues and techniques relevant to conducting field research in a foreign setting. Emphasis on the collection of primary data. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Historic Preservation in Planning
The course focuses on historical preservation through the planning and design process. Topical subjects include: historical district delineation, zoning and historical preservation, legal and economic issues of historical preservation, and historical preservation guidelines for design. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

International Development Planning Policy
Survey of plans and policies used in urban and regional planning in developing nations. Covers the post-WWII era and focuses on different agencies and actors involved policy and plan development and implementation. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
Planning

23PLAN679  
International Development Planning Policy
Survey of plans and policies used in urban and regional planning in developing nations. Covers the post-WWII era and focuses on different agencies and actors involved in planning and implementation. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

23PLAN681  
GIS Planning Applications
Advanced GIS concepts and skills and their applications to planning issues that require geographic data analysis. Student projects will be produced using advanced GIS analytical functions Prereq: 23PLAN254. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

23PLAN700  
Introduction to Graduate Research
Preparation of the proposal for graduate project which demonstrates the ability to conduct independent research Credit Level: G. Credit Hrs: 4.00

23PLAN701  
Concepts and Issues in Planning Practice
Comprehensive introduction to societal, metropolitan, and community issues and to the main ideas and approaches utilized in the practice of planning. Credit Level: G. Credit Hrs: 4.00

23PLAN702  
Social Science Research for Planners
Introduction to the research process and selected qualitative and quantitative research methods commonly used in planning. Credit Level: G. Credit Hrs: 4.00

23PLAN703  
Planning Theory
Systematic presentation and analysis of theoretical foundations and specific theories of planning. Credit Level: G. Credit Hrs: 4.00

23PLAN704  
Economic Analysis for Planners
From the perspective of economic theory and reasoning, this course covers such basic planning related issues as the role of planning in markets, the relationship between efficiency and equity, and the use and limits of cost-benefit analysis to plans and policies. This course also prepares students for other planning courses that require a basic knowledge of the scope and limits of economic theory. Credit Level: G. Credit Hrs: 4.00

23PLAN705  
Methods of Physical Analysis
Introduction to planning graphics and mapping, physical data selection and recording, physical analysis including the mapping and analysis of environmental data, typography, land use, zoning, social and political characteristics, transportation, infrastructure and buildings. Introduction to photography, report graphics and presentation methods used in urban planning. Credit Level: G. Credit Hrs: 4.00

23PLAN706  
Organizational Theory and Behavior in Planning
Examination of the structure, functioning, and change within organizations in relation to planning and its professional practice. Credit Level: G. Credit Hrs: 4.00

23PLAN707  
Workshop in Urban Design II
Advanced urban design studio. Credit Level: G. Credit Hrs: 4.00

23PLAN709  
Comprehensive Planning Workshop
Planning and policy implications of one significant urban or metropolitan issue, one section emphasizing primarily quantitative analysis and modeling, the other qualitative social and aesthetic issues. Credit Level: G. Credit Hrs: 5.00

23PLAN710  
Issues in Economic Development Planning
Review and analysis of the causes of economic decline in inner cities, the ways in which urban poverty is perceived, the structural problems of local economics, and strategies for their mitigation. Introduction to the process and techniques of economic development and planning for communities and urban areas. Credit Level: G. Credit Hrs: 4.00

23PLAN711  
Planning Law and Administration
Exploration of the legal foundation of planning practice and organizational environments and administrative practices characterizing planning practice. Credit Level: G. Credit Hrs: 4.00

23PLAN712  
Planning Methods and Techniques
Introduction to quantitative methods commonly employed by planners, including linear regression, population, and employment projections, cohort survival, time series, and index numbers, economic base, and others. Extensive use of US Census. Credit Level: G. Credit Hrs: 4.00

23PLAN713  
Economic Development Planning Methods I
Survey and implementation of basic techniques used for economic development. The course covers economic base and employment multipliers, shift-share analysis, input-output analysis, and structural multipliers, gravity models and retail location analysis and real estate development analysis. Credit Level: G. Credit Hrs: 4.00

23PLAN714  
Finance and Budgeting for Planners
Fiscal and budgetary issues and methods in local and state governments, especially as related to urban and regional planning issues shaped by broader economic economic policies and ingovernmental transfer. Credit Level: G. Credit Hrs: 4.00

23PLAN715  
Economic Development Planning Methods II
Micro-level techniques used to plan, implement, and evaluate specific economic development proposals and actions. Credit Level: G. Credit Hrs: 4.00

23PLAN716  
Structure and Dynamics of Human Settlements
Survey of the economic, social, political, and environmental forces shaping cities and metropolitan regions influencing their spatial structure and internal functions. The course reviews the evolution of urbanization in the U.S., especially after WWII, analyzes market and social/political forces affecting the patterns of growth and decline, and examines the political economy of urban systems, their land use regimes, their infrastructure and their efforts at reinventing and revitalizing their old cores and the structure of their economies. Credit Level: G. Credit Hrs: 4.00

23PLAN717  
Land Use Control
The theory, practice and impacts of zoning, growth management, and other techniques of land use control. Methods and legal constraints to developing land use plans and land use development ordinances. Credit Level: G. Credit Hrs: 4.00

23PLAN718  
Community Planning Practicum - HUD Students
Seminar sessions on the problems facing participating planners in various settings, organizations and communities. Studies of professional role relationships to clients, public officials, private sector and community groups. Credit Level: G. Credit Hrs: 1.00

23PLAN719  
Policy Planning for Economic Development
This seminar course explores the role of the state in economic development, examines the history and evolution of economic development policy and its institutions after the Second World War, and evaluates policies and strategies employed by federal, states, and local
### College of Design, Architecture, Art and Planning

#### Planning

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Level:</th>
<th>Credit Hrs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>23PLAN719</td>
<td>Policy Planning for Economic Development</td>
<td>Governments to position them competitively as entrepreneurial entities in an increasingly globalized world economy.</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>23PLAN720</td>
<td>Site Planning</td>
<td>Advanced discussion of factors influencing site analysis and development.</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>23PLAN721</td>
<td>Graduate Project Preparation</td>
<td>This is the first of the four courses offered to support MCP students completing the required thesis research or project</td>
<td>G</td>
<td>2.00</td>
</tr>
<tr>
<td>23PLAN723</td>
<td>Graduate Project in Planning I</td>
<td>Graduate project focusing on problem articulation research, analysis and presentation of alternative solutions.</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>23PLAN724</td>
<td>Graduate Project in Planning II</td>
<td>Graduate project focusing on the evaluation of alternatives, selection, evaluation of solution construction of the manner of the implementation including specifications of human, material and institutional resources required.</td>
<td>G</td>
<td>2.00</td>
</tr>
<tr>
<td>23PLAN725</td>
<td>Special Planning Topics</td>
<td>Overview of selected planning/policy topics.</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>23PLAN726</td>
<td>Summer Planning Internship Seminar I</td>
<td>Introduction to the selection of performance standards and evaluation of the required summer professional internship.</td>
<td>G</td>
<td>1.00</td>
</tr>
<tr>
<td>23PLAN727</td>
<td>Summer Planning Internship II</td>
<td>Assessment and evaluation of required full time summer internship for all graduate students in the school of planning.</td>
<td>G</td>
<td>2.00</td>
</tr>
<tr>
<td>23PLAN728</td>
<td>American Political Institutions</td>
<td>An introduction for international planning students to the governmental institutions and political processes that shape the profession of urban planning.</td>
<td>G</td>
<td>1.00</td>
</tr>
<tr>
<td>23PLAN731</td>
<td>Political and Ethical Issues in Planning</td>
<td>Examination of political and ethical issues in planning practice linking current and projected large-scale national and urban problems and professional, knowledge, and growth.</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>23PLAN736</td>
<td>Environmental Processes and Issues</td>
<td>Provides context of environmental processes and issues related to urban systems and urban growth. The introduction to actors in environmental planning.</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>23PLAN740</td>
<td>Independent Research in Community Planning</td>
<td>According to the amount of research elected each quarter. Perm of Instructor.</td>
<td>G</td>
<td>4.00-15.00</td>
</tr>
<tr>
<td>23PLAN741</td>
<td>Independent Research in Community Planning</td>
<td>According to the amount of research elected each quarter. Perm of Instructor.</td>
<td>G</td>
<td>1.00-15.00</td>
</tr>
</tbody>
</table>

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H=University Honors course.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>23PLAN776</td>
<td>Peace Corps Practicum I</td>
<td>Seminar sessions and independent study based on experience gained on assignment through the SOP Peace Corps program. Addresses issues of community development work as a professional planner; including reflection on how returned volunteers use the knowledge and skills they developed during their overseas service to improve people's lives here at home. Credit Level: G. Credit Hrs: 0.00-4.00</td>
<td></td>
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</tr>
<tr>
<td>23PLAN777</td>
<td>Peace Corps Practicum II</td>
<td>Seminar sessions and independent study based on experience gained on assignment through the SOP Peace Corps program. Addresses issues of community development work as a professional planner; including reflection on how returned volunteers use the knowledge and skills they developed during their overseas service to improve people's lives here at home. Credit Level: G. Credit Hrs: 0.00-4.00</td>
<td></td>
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</tr>
<tr>
<td>23PLAN778</td>
<td>Peace Corp Master's International Guided Study</td>
<td>Independent study based on hands-on experience while on assignment through the Peace Corps Master's International program. Covers issues of international development work as a professional, including methods of research and planning; cross-cultural relations; local, regional, or national planning efforts; and specific technical areas related to the student's assignment. Perm of Department. Credit Level: G. Credit Hrs: 0.00-15.00</td>
<td></td>
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</tr>
<tr>
<td>23PLAN779</td>
<td>International Development Planning Policy</td>
<td>Study of specific policies and programs their impacts, and policy evaluation. Credit Level: G. Credit Hrs: 4.00</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>23PLAN780</td>
<td>Introduction to Geographic Information Systems for Planners</td>
<td>Provides an overview of theories and approaches to planning. Examines and evaluates the analytical tools used in regional development planning and policy issues. This course examines major social science paradigms for analyzing relations among state, economy, and society. Provides a broad understanding of the structure and functions of subnational governments, nature of urban and regional economies and their relationship. Perm of Department. Credit Level: G. Credit Hrs: 4.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23PLAN781</td>
<td>GIS Planning Applications</td>
<td>Advanced GIS concepts and skills and their application to planning issue that require geographic data analysis. Student projects will be produced using advanced GIS analytical functions Credit Level: G. Credit Hrs: 4.00</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>23PLAN782</td>
<td>GIS Project Formulation and Management</td>
<td>This is the third in a three course sequence of GIS courses. Students will design and carry out a GIS project that requires spatial analysis in analyzing a real world urban and/or regional issue such as land use, housing, environment, transportation and economic development. Credit Level: G. Credit Hrs: 4.00</td>
<td></td>
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<tr>
<td>23PLAN791</td>
<td>Independent Study in Urban Design</td>
<td>Study proposal prepared by student and accepted for guidance by a member of the urban planning faculty. Credit Level: G. Credit Hrs: 1.00-6.00</td>
<td>G</td>
<td>1.00-6.00</td>
</tr>
<tr>
<td>23PLAN792</td>
<td>Mediation Skills in Urban Settings</td>
<td>A systematic examination of concepts and processes related to the resolution of disputes within urban settings. Credit Level: G. Credit Hrs: 4.00</td>
<td>G</td>
<td>4.00</td>
</tr>
<tr>
<td>23PLAN793</td>
<td>Independent Study in Urban Design</td>
<td>Study proposal prepared by student and accepted for guidance by a member of the urban planning faculty. Credit Level: G. Credit Hrs: 1.00-6.00</td>
<td>G</td>
<td>1.00-6.00</td>
</tr>
</tbody>
</table>

Planning

23PLAN904
Summer Planning Internship Seminar I
Introduction to the selection, performance standards, and evaluation of the required summer professional internship. Credit Level: G. Credit Hrs: 1.00

23PLAN905
Summer Planning Seminar II
Assessment and evaluation of required full-time summer internship for all graduate students in the School of Planning. Credit Level: G. Credit Hrs: 2.00

23PLAN910
Graduate Project in Planning I
Graduate Project focusing upon problem articulation research, analysis and presentation of alternative solution. Credit Level: G. Credit Hrs: 4.00

23PLAN911
Individual Research in Planning
According to amount of research elected. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN912
Individual Research in Planning
According to amount of research elected. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN913
Individual Research in Planning
According to amount of research elected. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN914
Individual Research in Planning
According to amount of research elected. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

23PLAN920
Graduate Project in Planning II
Graduate project focusing upon evaluation of alternatives, selection and evaluation of solutions, construction of the manner of implementation including specification of human, material, and institutional resources required. Credit Level: G. Credit Hrs: 4.00

23PLAN931
Theory Construction and Research Design for Planners
Study of grounding principles/processes for theory construction and research design; formulation of full research proposals. Credit Level: G. Credit Hrs: 4.00

23PLAN932
Research Execution and Evaluation for Planners
Administration for research projects; evaluation of research effort for rigor, precision, validity, reliability, and relevance. Credit Level: G. Credit Hrs: 5.00-15.00

23PLAN933
Policy Formation and Evaluation for Planners
Study of theory and research to form policy for applications to specific contexts; comparative examinations of consequences. Credit Level: G. Credit Hrs: 4.00

23PLAN950
Doctoral Seminar in Research Design and Proposal
Enables students to develop comprehensive dissertation proposal prior to the comprehensive examinations for admission to candidacy at the end of the second year of doctoral study. Credit Level: G. Credit Hrs: 4.00

23PLAN951
Directed Readings in Planning
Systematic and thorough examination of a specific substantive topic, functional area, or process in planning. May be repeated but not to exceed 12 gr. cr. Credit Level: G. Credit Hrs: 4.00-6.00

23PLAN952
Seminar On Doctoral Dissertation Research
Requires doctoral students in the dissertation writing phase to present their work in progress to their peers and the faculty for comment and criticism Credit Level: G. Credit Hrs: 4.00-6.00

23PLAN953
Directed Readings in Health Planning
Systematic and thorough examination of specific planning processes and/or management models within health care settings. Credit Level: G. Credit Hrs: 4.00-6.00

23PLAN960
Doctoral Colloquium
Colloquium for doctoral students and faculty to discuss and critique their current research. Perm of Department. Credit Level: G. Credit Hrs: 0.00-2.00

23PLAN997
Doctoral Research in Planning
Research of an advanced theoretical or empirical nature which advances the theory and method of planning and/or gives support to development of professional practice. Credit Level: G. Credit Hrs: 1.00-15.00

Architecture and Interior Design

23SAID001
Design Studio I-Trailer
Accelerated version of 23SAID101,2,3 combined. BoK: FA. Credit Level: U. Credit Hrs: 9.00

23SAID002
Skills I-Trailer
Intensified studio exercises introducing architectural drafting, including orthographic and paraline perspective; shade and shadow; freehand drawing; observation of form in the man-made environment and natural surroundings; graphics and ideation drawing. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23SAID100
Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID101
Design Lab 1: Inquiry and Disassembly
This studio provides an introduction to design fundamentals through inquiry, by the examination of complex relationships between form, space, perception, culture, conduct, and social activity; and disassembly, by the critical analysis and dismantling, both physically and graphically, of a complex object into its essential components and by the design and fabrication of an object that reuses these components for a different purpose. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23SAID102
Design Lab 2: Body and Composition
This studio explores the analogical relationship between the human body and the built environment, and the concepts of order and proportion in two- and three-dimensional composition. These explorations serve as a basis for a series of exercises that strengthen both design vocabulary and basic compositional skills. BoK: FA. Credit Level: U. Credit Hrs: 6.00

23SAID103
Design Lab 3: Transformation
This studio focuses on design development achieved through transformation of various items including the generating idea, the spatial configuration, and especially spatial treatment in terms of light, color, texture, and materials. The studio applies principles and techniques of transformation through three-dimensional computer modeling programs, drawing, and physical models. Students undertake a series of exercises...
Introduction to Environmental Design I: Theory and Practice

This course is designed to reinforce and complement the content in 23SAID103 and 104 with discussion and field trips. Group discussions and field trips are in the company of a graduate student, who functions as a mentor for a small group of first-year students. Prereq: 23SAID114. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Environmental Studies Seminar

This course is designed to reinforce and complement the content in 23SAID103 and 104 with discussion and field trips. Group discussions and field trips are in the company of a graduate student, who functions as a mentor for a small group of first-year students. Prereq: 23SAID114. BoK: NA. Credit Level: U. Credit Hrs: 1.00

Arts and Society: Monumental Expression

Introduction to an understanding and appreciation of architecture as a part of a broad continuum of cultural expression; a reflective engagement with artifacts ranging in scale and media, as situated in their cultural worlds, as also reflected in literature, music, or broad social and intellectual themes. General focus on methods of production, the place of the artist in society, relation to power and money, cultural world view, political and philosophical contexts, and aesthetics. Includes student projects of prescriptive analysis of images (paintings, artifacts) from local museums, and Web-posted presentation/discussion venues. BoK: FA, DC. Credit Level: U. Credit Hrs: 3.00

Arts and Society: Cities, Streets, and Dwellings

Introduction to an understanding and appreciation of cultural expression through cities and their unique personalities; how that character is manifested in the forms, materials, and life-ways of streets and public spaces; how social and political life take place; dwellings and institutions as expressions of social structures and geographic conditions. Includes student projects and prescriptive analysis of settings (building, locations) in Cincinnati and the SW Ohio region, and Web-posted presentation/discussion venues. BoK: FA, DC. Credit Level: U. Credit Hrs: 3.00

Arts and Society: Arts, Crafts, and Design

Introduction to an understanding and appreciation of architecture as part of a broad continuum of cultural expression; a reflective engagement with artifacts ranging in scale and media, as situated in their cultural worlds, as also reflected in literature, music, or broad social and intellectual themes. General focus on methods of production, the place of the artist in society, relation to power and money, cultural world view, political and philosophical contexts, and aesthetics. Includes student projects of prescriptive analysis of images (paintings, artifacts) from local museums, and Web-posted presentation/discussion venues. BoK: FA, DC. Credit Level: U. Credit Hrs: 3.00

Arts and Society: Cities, Streets, and Dwellings

Introduction to an understanding and appreciation of cultural expression through cities and their unique personalities; how that character is manifested in the forms, materials, and life-ways of streets and public spaces; how social and political life take place; dwellings and institutions as expressions of social structures and geographic conditions. Includes student projects and prescriptive analysis of settings (building, locations) in Cincinnati and the SW Ohio region, and Web-posted presentation/discussion venues. BoK: FA, DC. Credit Level: U. Credit Hrs: 3.00

Arts and Society: Monumental Expression

Introduction to common and divergent formal themes with different cultural meanings around the world; monuments and their relationship to the natural order, such as life cycles, geographic settings, astronomical awareness, and religious or philosophical descriptions of the cosmos. Teaches familiarity with Western classical and medieval monuments, as well as sites from Asia, Africa, and Native America.

H=University Honors course.
Architecture and Interior Design

23SAID129
Arts and Society: Monumental Expression
Emphasis on beginnings, archetypes, and architecture as a mode of socio-cultural understanding. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

23SAID129H
Arts and Society: Monumental Expression
Introduction to common and divergent formal themes with different cultural meanings around the world; monuments and their relationship to the natural order, such as life cycles, geographic settings, astronomical awareness, and religious or philosophical descriptions of the cosmos. Teaches familiarity with Western classical and medieval monuments, as well as sites from Asia, Africa, and Native America. Emphasis on beginnings, archetypes, and architecture as a mode of socio-cultural understanding. BoK: FA., DC. Credit Level: U. Credit Hrs: 3.00

23SAID167
Introduction to Building I
Introduction to construction materials, physical systems, and processes and their effect on the making of architectural form. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID168
Introduction to Building II
 Continuation of Introduction to Building I with a deeper focus on structure and surfaces for building. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID191
Computer Skills 1
This is the first of three courses that introduce students to electronic media and presentation. Students are also introduced to theoretical as well as practical applications of the computer. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID192
Computer Skills 2
This is the second of three courses that introduce students to electronic media and presentation. Students are also introduced to theoretical as well as practical applications of the computer. Prereq: 23SAID191. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID193
Computer Skills 3
This is the third of three courses that introduce students to electronic media and presentation. Students are also introduced to theoretical as well as practical applications of the computer. Prereq: 23SAID192. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID199
Accelerated Computer Skills
Introductory course in computer graphics for Master of Architecture students entering with a non-design undergraduate degree. Topics include graphic layout, two- and three-dimensional representation, and web design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23SAID200
Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID201
Immersion Studio
This comprehensive, multidisciplinary studio introduces students of architecture and interior design to the methods and techniques of problem solving in building production at multiple scales of design intervention, emphasizing site considerations, building systems, structures, and interior environments. For one quarter, this studio serves as the hub for all academic work in the School’s two undergraduate programs, including Skills, Construction 1, ET 1, History, and Professional Practice. A single syllabus and program

H–University Honors course.
Architecture and Interior Design

23SAID229  
**History/Theory/Criticism: The Rise of Modern Architecture**  
Introduction to ideological developments, major technical innovations, social and political circumstances through which European and American architecture and urbanism in the 20th century can be interpreted. Prereq: 23SAID228. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23SAID229H  
**History/Theory/Criticism: The Rise of Modern Architecture**  
Introduction to ideological developments, major technical innovations, social and political circumstances through with ropean and American architecture and urbanism in the 20th century can be interpreted. Prereq: 23SAID228. BoK: HP. Credit Level: U. Credit Hrs: 3.00

23SAID237  
**Interior Technology**  
Introduction to interior design issues, materials, systems, and processes and their effect on the design of buildings. Coreq: 23SAID201. BoK: NS. Credit Level: U. Credit Hrs: 2.00

23SAID267  
**Construction 1**  
Introduction to construction materials, physical systems and processes and their effect on the making of architectural form. Coreq: 23SAID201. BoK: NS. Credit Level: U. Credit Hrs: 2.00

23SAID268  
**Construction 2**  
Continuation of Construction 1 with a deeper focus on structure and surfaces for building. Perm of Department. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID287  
**Environmental Technology 1**  
The investigation of the thermal aspects of the environment, including consideration of physiology, climatology, natural adaptation, and thermal conditions. Prereq: 23SAID103. BoK: NS. Credit Level: U. Credit Hrs: 2.00

23SAID288  
**Environmental Technology 2**  
The investigation of the thermal aspects of the environment, including consideration of physiology, climatology, natural adaptation, and thermal calculations. Perm of Department. BoK: NS. Credit Level: U. Credit Hrs: 3.00

23SAID294  
**Computer Skills**  
An introduction to computer-aided design using AutoCAD software. Students will digitally reproduce an existing building in preparation for their first cooperative education experience. Prereq: 23SAID193. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23SAID300  
**Interdisciplinary Topics**  
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID312  
**Elective Studio**  
This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23INTD203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID322  
**Elective Studio**  
This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID337  
**American Architecture II: Victorian and Early Modern**  
“Victorian” American architecture, structural technology and urban development from the War of 1812 to World War I; 19th century historical eclecticism, Greek and Gothic Revivals of the antebellum period; their later variants in the Gilded Age after the Civil War; turn-of-the-century American Renaissance, and the origins of modernism in works of Richardson, Sullivan and Frank Lloyd Wright. Field trips will be available. Transfer Module. BoK: FA, HP. Credit Level: U. Credit Hrs: 3.00

23SAID362  
**Elective Studio**  
This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23ARCH203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID382  
**Elective Studio**  
This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23ARCH203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID352  
**Elective Studio**  
This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23ARCH203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID362  
**Elective Studio**  
This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23ARCH203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID372  
**Elective Studio**  
This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23ARCH203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID382  
**Elective Studio**  
This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23ARCH203. BoK: NA. Credit Level: U. Credit Hrs: 6.00
Architecture and Interior Design

23SAID387 Environmental Technology 1
The investigation of the thermal aspects of the environment, including consideration of physiology, climatology, natural adaptation, and thermal calculations. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

23SAID388 Environmental Technology 2
Introduction to environmental control systems used to control the thermal environment. Prereq: 23SAID387. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

23SAID392 Elective Studio
This elective studio will offer an exploration of issues related to particular areas of concentration within the undergraduate School of Architecture and Interior Design curricula. Prereq: 23ARCH202, 23INTD203. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23SAID399H Paris: Reading the City
In this course we will study texts by authors whose observations about the city of Paris and its systems (of transportation, commerce, social relations, hygiene, etc.) complement the traditional view of the city as a formal, visual construction. At the core of this investigation is the notion of the city as an organism or body, animated by patterns that relate to but ultimately transcend the brick and mortar city. This class will culminate in a 1-2 week visit to Paris during the vacation following the quarter in which the course is offered. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

23SAID400 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID427 Architecture of Cincinnati
The history of Greater Cincinnati’s man-made environment, from the 1700s until World War II. How have architects responded to our unique topography, social, cultural, and ethnic factors? BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

23SAID428 Cincinnati Architecture Seminar I
Covering a range of possible topics from Gothic Cathedrals to Art Nouveau to Louis Sullivan, this seminar allows students the opportunity for original research. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

23SAID429 Cincinnati Architecture Seminar II
Conducted in informal seminar sessions, with some lectures as well as group discussion and the opportunity for students to contribute original research on topics related to the historic architecture of the Greater Cincinnati Area. BoK: FA., HP. Credit Level: U. Credit Hrs: 3.00

23SAID438 Introduction to Programming
Introduction to the methods used for programming as a part of the pre-design phase of any design project. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23SAID491 Foreign Study Design Lab
A design lab for students who have been approved for organized study abroad. BoK: FA., DC. Credit Level: U. Credit Hrs: 6.00

23SAID494 Foreign Study Seminar
A seminar for students who have been approved for organized study abroad. BoK: DC. Credit Level: U. Credit Hrs: 3.00

Architecture and Interior Design

23SAID497 Foreign Study Lecture
A lecture for students who have been approved for organized study abroad. BoK: DC. Credit Level: U. Credit Hrs: 3.00

23SAID500 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SAID600 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

23SAID700 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

Art, Art History and Art Education

23SOA100 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA200 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA300 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA400 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA500 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOA600 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

Planning and Urban Studies

23SOP100 Interdisciplinary Topics
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00
Planning and Urban Studies

23SOP200  
Interdisciplinary Topics  
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOP300  
Interdisciplinary Topics  
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOP400  
Interdisciplinary Topics  
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOP500  
Interdisciplinary Topics  
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23SOP600  
Interdisciplinary Topics  
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

23SOP700  
Interdisciplinary Topics  
Interdisciplinary course for programs and/or faculty jointly teaching a cross-disciplinary studio, lecture, lab, or seminar. Perm of Department. Credit Level: G. Credit Hrs: 1.00-12.00

Urban Administration and Urban Studies

23URBN405  
Internship  
Full-time internship in urban studies for integration of academic work and field experience. BoK: NA. Credit Level: U. Credit Hrs: 3.00-15.00

23URBN406  
Cultural Pluralism in the American City  
The implications of cultural differences. Designed to help professionals in social work, health, education, and law enforcement understand the difficulties and possibilities of working with minority subcultures. Offered alt. yrs. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

23URBN407  
Appalachians as an Urban Ethnic Group  
An introduction to the history, culture, and social structure of the Appalachian subculture with emphasis on the group's experience as urban migrants. Practice oriented for students interested in health, education, social work, community organization, or criminal justice work with cultural minorities. Offered alt. yrs. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

23URBN408  
Black Americans in the City  
The values and social institutions of the African-American subculture as a factor in the delivery of social welfare (health, education, social work, community organizing, criminal justice, etc.) services. Draws upon sociology, anthropology, and social welfare theory. Offered alt. yrs. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

23URBN409  
Old Age and the Community  
The crisis of a rapidly expanding aged population doomed to marginal life styles because of prejudices and lack of community planning. An assessment of economic, social, health, and psychological needs of the aged. Prereq: 15ENGL103. BoK: SS, SE. Credit Level: U. Credit Hrs: 3.00

Urban Administration and Urban Studies

23URBN473  
Directed Studies  
Directed readings and tutorial conferences related to specific areas of Urban Studies. Prereq.: BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

23URBN474  
Independent Study in Urban Studies  
Please complete and submit an Independent Application form available from the college office. BoK: NA. Credit Level: U. Credit Hrs: 1.00-12.00

23URBN479  
Social Justice and the City  
General Education-approved course that examines experiences of differences in cities and their implications for ideas for social justice. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

23URBN578  
Senior Problem Proposal in Urban Studies  
Preparation of the full proposal for senior year study. Prereq: 23PLAN546. BoK: NA. Credit Level: U. Credit Hrs: 3.00

23URBN587  
Urban Studies Thesis  
Terminal requirement for Urban Studies majors; research preparation and presentation of specific urban topic. Prereq: 23URBN578. BoK: NA. Credit Level: U. Credit Hrs: 6.00

23URBN591  
Seminar in Urban Topics  
Overview of selected urban topics. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-6.00

H—University Honors course.
Addictions

18ADDC202 Basic Pharmacology
How tolerance, cross-tolerance, synergism, and withdrawal lead to addiction. How the route of administration alters pharmacodynamics. How the liver and the kidneys change body chemical metabolism. The primary and secondary side effects of narcotic drugs. BoK: NS. Credit Level: U. Credit Hrs: 3.00

18ADDC203 Substance Abuse and Chemical Dependency in the Older Adult
The purpose of this course is to provide students with an understanding of the effect of mood altering substances in older adults, and of the specific treatment needs of this special population. The course will examine causes of substance abuse with this population, special clinical skills needed, and intervention strategies. Cultural prejudices toward older adults will also be a focus. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18ADDC205 Foundations in ATOD Prevention I
The purpose of this course is to introduce students to a comprehensive overview of the prevention discipline. The student will examine significant historical developments, populations served and their needs, and current research and practice, and will learn about resources available in the field. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC209 Alcoholism
This course presents a multidimensional approach to the “disease” of alcoholism. It presents the sociological, psychological, physiological, moral, and behavioral factors and effects associated with the disorder, as well as a review of diagnostic and therapeutic tools currently in use. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC211 Drugs and Behavior
In addition to basic information about the problems associated with substance abuse and identifying various drugs of abuse, the course also provides a review of the causes and correlational models associated with chemical dependency. The biochemical and predispositional variables of chemical dependency are also explored, as well as the psychological and behavioral effects associated with the dependent person and his family. Primary therapeutic and relapse interventions are presented, as well as the program modality referral process. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC221 Assessment and Diagnosis in Addictions
Introduces the student to the clinical assessment and diagnostic process in addictions. The student will learn the key elements of making good assessments, and will become familiar with the diagnostic and statistical manuals and multidimensional paradigms. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC231 Introduction to Counseling
An eclectic overview of various counseling theories, including some counseling perspectives more commonly used in the field of addiction treatment. Builds the foundation for development of a personal counseling approach. Fundamentals of the counseling process, basic requirements in a therapeutic relationship, and ethical considerations will be emphasized. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC301 Addiction: Impact on the Family
Discusses the significant impact of addiction on family systems, including roles, dynamics, and symptoms that are commonly identified in both family members and the addicted person. The course also

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Addictions

18ADDC301 Addiction: Impact on the Family
explores co-dependency, sexuality, and transgenerational issues, as well as domestic violence and abuse. Assessment and intervention strategies will also be explored. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC302 Neurobiology and Neuroendocrinology of Addiction
The physiology of the neuron and synapse. Sensory and motor nerve tracts in the spinal chord and brain. Brain formations which subserve pain, pleasure, and motor skills. How neurotransmitters, endorphins, and narcotics impinge on their function. BoK: NS. Credit Level: U. Credit Hrs: 3.00

18ADDC305 Nicotine Addiction and Treatment
This course will examine the use of tobacco products, focusing on the effects of nicotine addiction on the individual and society. The history of tobacco use and the politics and economics of the tobacco industry will also be explored. Students will be presented with the latest diagnostic, prevention, and treatment strategies used in nicotine addiction. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC308 Sexual Addiction
A detailed introduction to the development, maintenance, and consequences of sexual addiction. Diagnosis and treatment modalities will be discussed, as well as the interaction of the addict with family dynamics, societal values, and the criminal justice system. Prereq: 18ADDC211. BoK: SE. Credit Level: U. Credit Hrs: 3.00

18ADDC309 Women and Addictions
Provides an exploration of specific issues relevant to women with a number of addictions. These include gender differences in usage patterns, cultural issues, physiological complications, psychological repercussions, and recovery concerns. Biases in therapeutic intervention are also reviewed. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18ADDC313 Eating Disorders: Women and Their Bodies
This course provides an in-depth study of the primary eating disorders of anorexia nervosa, bulimia nervosa, and binge eating. Gender issues, psycho-social issues, medical complications, treatment strategies, and prevention are also presented. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC319 Substance Abuse in the Gay and Lesbian Community
This course focuses on some of the factors that lead to high rates of substance abuse among the gay and lesbian communities: homophobia, grief and loss, and community enabling. Also addressed are treatment issues, family issues, and health concerns related to this population, as well as unaddressed life issues and under-addressed treatment issues related to the gay and lesbian populations. Other related issues that are discussed are life transition issues, self-perception, coming out, communicable diseases, and co-dependency. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18ADDC321 Dual Diagnosis
Designed to provide a basic understanding of the nature and dynamic of the dually diagnosed person. The course covers the symptomatology of persons with both chemical addiction and a mental health problem. Included are the specific treatment needs of this population and the benefits of a "SA/MI" treatment module. Included are various clinical approaches.
Addictions

18ADDC321 Dual Diagnosis
Definitions according to the DSM-IV, progression of psychiatric disorders, traditional versus specific treatment, medication and medical management, multi-disciplined treatment approaches, and more. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC329 Holistic Assessment Processes in Addictive Disorders
Designed to provide students with opportunities to master chemical dependency assessment skills. Students will learn theories related to: the nature of addiction, common effects of the addictive process on the addicts and the people in committed relationships with addicts, pre- and post-use symptoms of addiction. In addition, students will learn and practice skills related to: paper and pencil measures of addiction, interview techniques, and third party information gathering techniques. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC330 Fundamentals of Cultural Competence
Addresses the critical role culture plays in the development of and the recovery from chemical dependency. Specific cultures (African-American, Appalachian, Native American, and Hispanic) are among those examined in relation to their implications for addiction. The course also presents culture-specific factors associated with various assessment, diagnostic, and treatment strategies, as well as treatment implications. BoK: SS, DC. Credit Level: U. Credit Hrs: 3.00

18ADDC332 Individual Counseling Skills in Addictions
This class will review four common theories of psychotherapy and their application in the addiction treatment setting. The class will be experiential and didactic with role play training sessions in major techniques from each theory. Student evaluations will be based on a paper, class participation, and a final multiple choice exam. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC333 Introduction to Group Process
An introduction to group theories, issues, and key concepts of group process. Students will learn how to apply these concepts in working with a variety of groups with a focus on addictions. The course provides a basic understanding of group theories, dynamics, processes, and development, with the focus on addiction therapy. Students will identify and experience group member roles and behaviors, and study group leadership characteristics, styles, and approaches. Various types of group work, including task, therapy, counseling, and psycho-educational modes, will be studied. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC351 Substance Abuse and the Law
An in-depth look at municipal, state, and federal laws related to substance abuse and trafficking. Course educates students about funding of drug trafficking, sale of controlled substances, illegal dispensing of drug samples, counterfeit controlled substances, criminal and civil forfeiture, probation, commitments for treatment, and many more legal problems for the substance abuse population. Course will give the student a better understanding of the legal implications and consequences of illegal drug activity and behavior. It may better prepare a counselor to work with the criminal justice system. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC361 HIV/AIDS in Addictions and Social Service Practice
The student will participate in discussions about AIDS origin (theories) and the salient societal features which permitted HIV to gain a foothold in this society. The student will learn the three stages of the disease progression and the mechanisms by which HIV impacts the immune system. HIV testing methodology, drugs as treatment, and prophylaxis will be discussed, along with payment sources for different drug companies. Students will also assess specific drugs and discuss them in terms of cost, drug company affiliations, use dosages, side effects, complications, contraindications, trials, and local availability. BoK: NS, SS. Credit Level: U. Credit Hrs: 3.00

18ADDC362 Adolescent Chemical Dependency
This course focuses on the developmental tasks of adolescents, including physiological and psychological changes, independence, moral development, social and coping skills, and the psycho-social variables that impact adolescent growth and maladaptive behaviors, such as substance abuse. The course also discusses family issues, dynamics, and the behavioral impact of adolescent CD in various settings. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC401 Group Leadership Skills in Addictions
This course is recommended to those students who have completed Introduction to Group Process. The course focuses on techniques, clinical skills, ethical issues, screening, goal setting, group development, advanced counseling skills, experimental activities, and time-limited group process. The student should be prepared to be involved with role playing, group leadership exercises, and skill development. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC402 Grantwriting and Fiscal Management in Addiction Prevention
The purpose of this course is to introduce the student to the principles of program planning with a focus on proposal writing. The student will learn key elements of grantwriting, evaluation of proposal plans, and fiscal responsibilities, and will become familiar with a variety of grantwriting techniques. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC403 Supervision of Prevention Professionals and Volunteers
The purpose of this course is to introduce students to the principles of organizational behavior and leadership models. The student will learn strategies and techniques, based in theory and practice, essential in supervising prevention professionals and community volunteers. The student will become familiar with employee motivation, conflict management, and team-oriented groups. Guidelines, roles, and responsibilities for Preceptorship in prevention certification will be discussed and will satisfy the Ohio Credentialing Board Preceptor training requirement. Prereq: 18ADDC205, 18ADDC211, 18ADDC304, 15ENGL103. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC404 Anger and Addiction
Explores the complex relationship between anger behavior and addiction. An experiential class designed to address the treatment of destructive anger patterns in addiction recovery. Includes aspects of treatment for self-destructive and family anger. Special emphasis is placed on the students’ discovery of their own anger patterns and professional anger management issues. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC405 Family Counseling Skills
Course is designed for understanding the systemic deterioration of the family due to addiction: the family dynamic, family roles, and overall dysfunctioning process. It also teaches intervention strategies, therapeutic techniques to work with the “chemically dependent family,” family relapse prevention, issues of sexuality in recovery, and a number of counseling techniques that have been effective in family therapy. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC409 Opiate Addiction and Treatment
Students will be completely educated about addiction to the opiate drugs. The course is designed to help the treatment professional...
Addictions

18ADDC409 Opiate Addiction and Treatment
understand the interrelationship between the physiological and psychological dynamics of opiate addiction. This will include scientific research on opiate addiction, methadone treatment, and other successful therapeutic strategies, as well as opiate addiction and criminal behavior, psychiatric co-morbidity, and many other correlational issues. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC410 Legalized Gambling and Society
Government is increasingly turning to lotteries, casino gambling, and other legalized gambling operations to secure revenue. Some statistical evidence suggests that there is a positive correlation between this increase and the number of problem gamblers in our society. This course will examine the impact of this phenomena and the distal consequences on communities which have chosen gambling as a revenue-generating support system. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC411 Treatment of Gambling Addiction
Designed to help students become more knowledgeable about compulsive gambling by studying the behavioral, psychological, and sociological correlates as well as assessment and diagnostic tools used to establish a clinical presentation. Students will also be exposed to therapeutic interventions and participate in role playing and practicum to assist them in learning clinical techniques. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC421 Crisis Management in Therapy
The student will learn to recognize crisis situations in therapy and develop skills and strategies to help the person in clinical crisis. Included features are: assessment of mental status, characteristics of behavior and speech, risk prediction variables, external and internal triggers, escalation, debriefing, and post-crisis depression. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC422 Recovery and Relapse
The student will learn the relapse and recovery process, including: the phases of recovery; how to recognize a healthy recovery from addiction; understanding relapse, the causes of relapse, triggers associated with relapse; manifestations of relapse; how to prevent relapse; and special problems of relapse associated with special populations and needs such as gender and cultural differences. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC423 Spirituality and Recovery
The examination and evaluation of the impact of active addiction on spirituality and the need for spiritual reformation and application for a successful recovery. The meaning and role of spirituality in a person’s life and its therapeutic implications for recovery from addictions are major areas of focus. Specific cultural populations and spirituality, as well as relationships and spirituality, will also be studied. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC432 Education and Prevention in Addictions
Topics included are: addictions prevention planning and needs assessments along with review of addictions prevention programs that work and why; implementation issues such as funding, program management, building community support, and legal/ethical/public policy issues. Evaluation of addictions prevention program outcomes and impact are also included. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC433 Creating Drug-Free Schools
This course provides a framework for addictions prevention education for K-12 grades. It provides the basics for drug prevention, including what kids need to succeed, information about drugs, background on

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Addictions

18ADDC433 Creating Drug-Free Schools
children's developmental learning stages, specific lesson plans, and suggestions for working with parents, communities, and policy makers. A model national prevention curriculum from the U.S. Department of Education is presented. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC434 Developing Community Prevention Programs
Prepares the student for the process of developing prevention leadership skills. Very limited time and available resources will be used to achieve the best outcome of the course. This will make the participants cognizant of the realtities of similar scarceness within the community. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC435 Prevention Education and Training
The purpose of this course is to introduce students to the elements and practice of leading and presenting to groups. The student will learn the "process" of training/education for imparting prevention-related knowledge, information, and skills to others in a variety of settings (formal and informal). Communication and facilitation skills for the student are emphasized. The course also presents culture-specific factors associated with prevention training assessment, design, delivery, and evaluation. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC451 Ethics in Chemical Dependency Counseling
An in-depth examination of the codes of ethics in addictions and human services. Emphasis is placed on the NAADAC code of ethics for addictions treatment providers. Experiential exercises and role playing to identify and resolve ethical issues and dilemmas will be used. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18ADDC461 Administration of Addiction Programs
An overview of challenges that confront administrators of addiction programs and the skills and knowledge needed for successful management. The course includes profit versus nonprofit agencies, free-standing versus affiliated agencies, purview and authority, aspects of business, approaches to management, and leadership skills. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC499 Independent Study in Addiction
Please complete and submit an Independent Application form available from the College Office. BoK: SS. Credit Level: U. Credit Hrs: 1.00-12.00

18ADDC510 Clinical Supervision of Chemical Dependency Counselors
This course is designed to introduce helping professionals to current perspectives on clinical supervision for substance abuse/dependency counselors. It is designed for counselors with some advanced skills and experiences who anticipate supervisory responsibilities, and for those professionals who are already doing some clinical supervision and would like an opportunity to expand their understanding and practice of supervising other professionals in the field of addictions. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC519 Managed Care of Behavioral Medicine
This course provides students with the skills to design a mental health or substance abuse clinic and to sell managed care contracts to large corporations. Included in the course of study will be understanding contract negotiation, HMO and PPO capitation formulas, and their outcome studies. Students will be given an opportunity to understand information-based health care data processing and become well versed in managed care terminology. BoK: SS. Credit Level: U. Credit Hrs: 3.00

H–University Honors course.
Addictions

18ADDC521
Drug Abuse and Public Policy
This course examines public policy relative to drug abuse; and examines the confusing and often contradictory array of facts, rhetoric, and myth that influence policy and public opinion. The course will review the history and current state of government and community efforts to regulate drug problems. Some of the areas studied are: the war on drugs, cultural driving policy, local community efforts, federal dollars, political leadership, and current research. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC522
Addictions Casework Seminar
This class provides skill development in doing casework with the addicted populations. A review of client admission, intake, assessment, and treatment planning as it relates to developing casework plans and the referral process will be a primary focus of the course. The course also explores developing appropriate case plans with special populations, including women, AIDS/HIV infected persons, dually diagnosed individuals, adolescents, and some culturally-specific populations. Students will develop case plans based upon the initial treatment planning. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC531
Student Internship Program
The Addictions Studies Internship program is designed to assist students gain practical experience in the field of addictions. While the main focus of the student Internship is to provide a clinically supervised practicum, an ancillary feature will be to allow students to network with treatment, correctional, and social service agencies, thereby gaining valuable knowledge of support systems available in the community. Student Internships do count as "work experience" by the Ohio Credentialing Board and may be extended by agreement with the receiving agency. Students must have a 2.5 average to qualify for an Internship, be accepted by the host agency, and have the approval of the Director of the Addictions Studies program. Students who do not qualify will substitute an additional elective to meet baccalaureate graduation requirements. Internships are primarily for baccalaureate students, but some certificate students may qualify for an Internship with the approval of the Director of the Addictions program. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ADDC532
Student Internship II
The Addictions Studies Student Internship II is designed to allow students to gain practical experience and to meet licensure requirements. Prereq: 18ADDC531. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC540
The Therapeutic Community in Addictions Treatment
Course will examine the history, evolution, and current use of the therapeutic community as a modality for addictions treatment and the characteristics of the individual most amenable to this modality. The specifics (i.e., hierarchy, client roles and responsibilities, practitioner role, integration, and participation) will be identified and examined. The course will have a research component to it that will be integrated into the preparation for the student's capstone experience. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ADDC541
Capstone Experience in Addictions Studies
This course or experience will introduce the student to the treatment process by actually allowing him or her to participate in a therapeutic encounter. It is designed to give the student a better understanding of the emotional experiences that accompany various levels and types of treatment modes and modalities and to promote greater empathy and objectivity when working with the addictions populations. Experiences will vary from group encounters in a therapeutic community to individual experiences in different treatment settings. BoK: NA. Credit Level: U. Credit Hrs: 3.00
Using Literature in Social Studies

This course explores various modes, formal and informal, for posing and pursuing questions about teaching and learning. Emphasizes the individual pursuit of research relevant to one's professional interests. Credit Level: G. Credit Hrs: 3.00

The Role of Teachers in a Democratic Society

Focuses on the theoretical, philosophical, and practical foundations of what it means to be a teacher in a democratic society, with applications to students' personal and professional lives as teachers. Credit Level: G. Credit Hrs: 3.00

Forces Shaping the School Curriculum

Examines philosophical, historical, political/ legislative, and socio-cultural forces shaping school curricula, past and present. Provides multiple perspectives for identifying and evaluating the consequences of curricular choices. Credit Level: G. Credit Hrs: 3.00

Addressing Diversity in the Classroom

Focuses on the nature of diversity, both in society and in the classroom, and its relationship to what is studied and how it is taught. Addresses nature and use of culturally responsive pedagogy to enhance learning and the classroom experience. Credit Level: G. Credit Hrs: 3.00

Developing Number Sense

Designed to help classroom teachers develop skills and techniques for the teaching of number sense. Credit Level: G. Credit Hrs: 3.00

Research Into Middle Childhood Education

This course examines the research base that addresses how middle schools function, how curriculum in middle schools is arranged, and how learning in middle schools is fostered and assessed. Credit Level: G. Credit Hrs: 3.00

History and Philosophy of Science for Science Educators

This course deals with the interface of science and the philosophy of science during various historical time periods. Explores how historical context shapes what is accepted as science and scientific knowledge, the purpose of scientific investigation, and how scientific knowledge is validated. Credit Level: G. Credit Hrs: 3.00

Research in Science Learning

This course examines empirical research in science education, including instructional practices, curriculum materials, student thinking and achievement, technology integration, and teacher decision making. Focuses on a variety of methods used and how researcher purposes influence methodology. Credit Level: G. Credit Hrs: 3.00

Scientific Investigations within Environmental Education

An emphasis on integrating environmental education into the K-12 curriculum using scientific investigations as the foundation for the course. Credit Level: G. Credit Hrs: 3.00

Using Literature in Social Studies

Explores ways of using literature to enrich the teaching of history and social studies in grades 4 through 12. Credit Level: G. Credit Hrs: 3.00

Current Issues in History Education

Introduces students to current theory, research, and policy debates in history education. Credit Level: G. Credit Hrs: 3.00

Nature of Social Studies Education

Examines the nature and purposes of social studies in American schools from both historical and contemporary perspectives. Credit Level: G. Credit Hrs: 3.00

Research in Social Studies Education

Introduces students to recent empirical research in social studies education. Credit Level: G. Credit Hrs: 3.00

Topical Seminar in Mathematics Education

Study of various topics related to recent developments in the learning and teaching of mathematics in elementary and secondary schools. Recommended for inservice teachers and others interested in math education. Credit Level: G. Credit Hrs: 1.00-3.00

Assessment in the Mathematics Classroom: K-12

An exploration of alternative and traditional assessments and their impact upon student learning in the mathematics classroom. Credit Level: G. Credit Hrs: 3.00

Practicum in Higher Education

Observation and supervised experiences in a university or college setting. Credit Level: G. Credit Hrs: 1.00-6.00

Design of On-line Learning Environments

An introduction to the design of on-line learning environments. This course explores current research on on-line learning while covering administration, facilitation, course development, and strategies to encourage reflection and interaction in on-line learning environments. How technologies can change traditional teaching, the way people work, and learning in schools. Credit Level: G. Credit Hrs: 3.00

The Teaching and Learning of Algebra

Ways to provide opportunities for students of all ages to study algebraic concepts. Credit Level: G. Credit Hrs: 3.00

Teaching/Learning Data Analysis

This course is designed to enable mathematics teachers of any grade level (K-12) to better understand data analysis and how to incorporate it into their classroom teaching. We also look at some of the research on teaching data analysis. Credit Level: G. Credit Hrs: 3.00

Calculators and Computers as Tools in the Teaching of Mathematics

Participants explore uses of calculators and computers for the teaching of mathematics in grades K-12 and examine research on the impact of these tools on children's learning. Credit Level: G. Credit Hrs: 3.00

Mathematics Education in the Early Elementary Grades

An in-depth exploration of students' invented strategies for mathematical problem solving across all mathematics curricular areas. Credit Level: G. Credit Hrs: 3.00

Family and Community Outreach

This course is part of National Board preparation whereby participants address family and community outreach options. Credit Level: G. Credit Hrs: 3.00
Curriculum and Instruction

18CI761P
Connecting Content Knowledge to National Board Standards
This course is part of National Board preparation whereby participants will address how content knowledge is connected to the NB standards. Credit Level: G. Credit Hrs: 3.00

18CI762P
Learning Environments and Instructional Resources
This course is part of National Board preparation whereby participants will address learning environments and instructions to NB standards. Credit Level: G. Credit Hrs: 3.00

18CI763P
Assess Student Growth and Understanding
This course is part of National Board preparation whereby participants will address student assessment as it pertains to the NB standards. Credit Level: G. Credit Hrs: 3.00

18CI764P
Professional Writing for National Board Certification
This course is part of National Board preparation whereby participants will learn the genre of professional writing for the NB standards. Credit Level: G. Credit Hrs: 3.00

18CI774
Education Technology: Social, Ethical, Legal, and Human Issues
Critical examination of technology and its impact on society and individuals from an ethical, legal, and social perspective. Credit Level: G. Credit Hrs: 3.00

18CI775
Technology Internship
Technology Internship is a 3 credit field experience for a master's or doctoral student in the Instructional Design and Technology strand in Curriculum and Instruction. The Intern works in a school, non-profit organization, or corporation to gain real-world experience in the field of Instructional Design and Technology. 75 Internship hours required. Perm of Advisor. Credit Level: G. Credit Hrs: 3.00

18CI776
Applying Technology in the Classroom for Effective Learning
This course provides an overview of the increasingly complex array of technology-based media and hardware available for use in the classroom. Some of the topics covered are learning theories and integration models for technology-enhanced instruction, integrating digital technologies and software tools into the classroom, distance learning, and national and state educational technology standards for teachers and students. Credit Level: G. Credit Hrs: 3.00

18CI782
Classroom Management
Emphasizes relationship between instruction and discipline. Stresses skills necessary to implement humanistic, interactive, and behavioral models of classroom management. Credit Level: G. Credit Hrs: 1.00-3.00

18CI785
Improving Instructional Effectiveness
Study of teacher behaviors that influence the academic achievement of students. Credit Level: G. Credit Hrs: 3.00

18CI786
Math Problem Solving
Mathematical problem solving should be the primary emphasis of mathematics instruction at all levels. Methods for teaching and evaluating problem solving in grades K-12 are the focus of this course. Credit Level: G. Credit Hrs: 3.00

18CI787
Middle School Math Methods
Mathematics in the middle school/junior high school has often been little more than a repeat of topics from the elementary grades. Changes in the mathematics curriculum are having a significant impact on both curriculum and instruction. This course will examine current practices in

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18CI787
Middle School Math Methods
Teaching mathematics at this level. Credit Level: G. Credit Hrs: 3.00

18CI789
Effective Instruction in the Middle Level School
Study of instructional practices in effective schools. Includes models of teaching, classroom management, teaching methods for young adolescents, and methods to increase engaged learning time. Credit Level: G. Credit Hrs: 3.00

18CI791
Labs and Demonstrations in the Science Classroom
Science demonstrations and laboratory experiences will be developed and applied to various areas of science teaching. Management and safety procedures will be examined. Credit Level: G. Credit Hrs: 3.00

18CI792
Internship in Higher Education
Supervised learning experiences in various on-site locations. Periodic seminars for analysis of experiences. Credit Level: G. Credit Hrs: 1.00-6.00

18CI795
Technology Administration in Education
Study of problems, issues, and concerns in administering technology in educational settings. Focus on possible resolutions. Credit Level: G. Credit Hrs: 3.00

18CI801
Topical Seminar in Curriculum and Instruction
Special focus on selected topics in curriculum and instruction-related areas. Credit Level: G. Credit Hrs: 1.00-6.00

18CI811
Seminar in Higher Education
A study of current issues and projected trends in higher education. Focuses on the development of student capacities for judgment, fact-gathering, analysis, synthesis, and evaluation. Foci include continuing education and adult education. Credit Level: G. Credit Hrs: 3.00

18CI814
The Community/Junior College
The philosophy, history, functions, organization, curriculum, and trends in post-secondary, non-baccalaureate institutions. Credit Level: G. Credit Hrs: 3.00

18CI818
Seminar in the Community/Junior College
Analysis of current problems and issues in junior and community colleges. Foci include adult education. Credit Level: G. Credit Hrs: 3.00

18CI820
Instructional Technology Techniques in Higher Education
Psychology of adult learning plus examination of instructional strategies from developing concepts to establishing objectives to evaluating student and teacher performance. Instructional techniques focus on media and technology-based solutions as well as more traditional lectures, seminars, and discussion groups. Credit Level: G. Credit Hrs: 3.00

18CI832
Multimedia Studio I
Students learn a variety of tools for multimedia. Students work independently or in groups. Class functions as a guided studio where students participate in workshops, share their work, collaborate with peers, and obtain feedback/assistance from the instructor. Credit Level: G. Credit Hrs: 3.00

18CI833
Multimedia Studio II
Students learn a variety of tools for multimedia. Students work independently or in groups. Class functions as a guided studio where students participate in workshops, share their work, collaborate with
Instructional Design

18CI833 Multimedia Studio II
peers, and obtain feedback/assistance from the instructor. Credit Level: G. Credit Hrs: 3.00

18CI834 Multimedia Studio III
Students pursue individually defined projects or develop "real" instructional design projects for clients. Students work independently or in groups. Class functions as a studio where students participate in workshops, share their work, collaborate with peers, and obtain assistance from the instructor. Prereq: 18CI832, 18CI833. Credit Level: G. Credit Hrs: 3.00

18CI841 Issues in Mathematics Education I
Addresses curricular background, significant reforms, specific content topics, and models of learning related to mathematics education in elementary and secondary schools. Credit Level: G. Credit Hrs: 3.00

18CI842 Issues in Mathematics Education II
Focuses on pedagogical and sociological topics related to the teaching and learning of school mathematics; designed for experienced educators. Prereq: 18CI841. Credit Level: G. Credit Hrs: 3.00

18CI849 Organization and Administration in Higher Education
Overview of various organizational structures (academic and administrative), intra- and inter-institutional governance, accountability, and responsibilities of major officers. Credit Level: G. Credit Hrs: 3.00

18CI850 Program Development in Higher Education
Designing appropriate learning experiences utilizing needs assessment, specification of objectives, staffing, content selection, and evaluation. Credit Level: G. Credit Hrs: 3.00

18CI871 Individual Study in Curriculum and Instruction
Cr. and hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-6.00

18CI872 Reading in Curriculum and Instruction
Cr. and hrs. to be arranged. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

18CI873 Individual Master's Thesis: Curriculum and Instruction
Research and writing on an approved topic; consultation with adviser; in lieu of Master's Comprehensive Examination. Credit Level: G. Credit Hrs: 1.00-9.00

18CI874 Individual Master's Project: Curriculum and Instruction
Writing and obtaining master committee's approval of master's project proposal and doing the research and writing for the final master's project. Credit Level: G. Credit Hrs: 1.00-6.00

18CI881 Learning Sciences and Technology
This course provides a fundamental understanding of learning sciences, an interdisciplinary field dedicated to studying learning and how learning may be facilitated in designed environments. Students will design a technology-based learning environment and conduct an evaluation of the embedded theories in an existing environment of their choice, such as digital media, games, or other innovative technologies. Credit Level: G. Credit Hrs: 3.00

18CI884 Instructional Design
This course is designed to address how to create interactive learning environments for multimedia instruction. The course introduces instructional design models and covers analyzing the problem/learner,
Criminal Justice

18CJ101 Introduction to Criminal Justice
Examines agencies and processes involved in administering justice: the legislature, the police, the prosecutor, the courts, and correctional systems. Focus is on the formal crime control process in the United States. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ102 Introduction to Criminology
An introductory survey course that covers the major theoretical explanations for crime and delinquency. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ103 Introduction to Policing
The development of U.S. policing, stressing the relationship of police to local politics and the effects of civil service, reform movements, and technological change. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ104 Introduction to Corrections
Familiarizes the student with the history, current practices, and future directions of corrections. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ105 Introduction to Courts
Dynamic analysis of the American courts with special emphasis on political and economic contexts within which the courts work. Includes survey of recent research on the American legal system. Prereq: 18CJ101. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ250 Criminal Justice Interviewing
Develops a basic skill level in interviewing, interrogating, and testifying. Contrasts these three distinct verbal skills. Includes role playing to practice and reinforce techniques. BoK: SS. Credit Level: U. Credit Hrs: 3.00

College of Education, Criminal Justice, and Human Services

Criminal Justice

18CJ252 Basic Police Photography
Introduces students to the use of both 35mm and Polaroid cameras in police work, with emphasis placed on crime scene, traffic accident, and surveillance photography. Includes case law regarding the value of photographs as evidence. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ253 Practical Police Applications
Introduces the student to the basic techniques of police patrol, with emphasis on a proactive patrol model, to prevent crime and apprehend violators. Discusses the power of observation, field interrogations, and the development of an informant network, as well as arrest techniques and prisoner handling procedures. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ273 Domestic Violence
Application of crisis intervention theory to domestic disputes, with emphasis on student role-playing. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ274 Managing Conflict and Assaultive Behavior
Adapts and applies crisis intervention theory to the development and practice of control techniques for specific incidents of impending potential aggression and/or violence. Requires physical participation in simulations. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ284 Legal Issues in Corrections
Details the most relevant law and recent court decisions regarding the areas of corrections. Provides an understanding of both the rights of prisoners as well as the rights and liabilities of correctional personnel. BoK: HU., SE. Credit Level: U. Credit Hrs: 3.00

18CJ290 Criminal Justice in Film
This is a course built around the genre of the Trial Movie, which presents a pleasurable forum for examining several different aspects of law and courtroom procedure, as well as providing the venue for debating the cornerstones of our society, law, justice, morality, and the social conventions that hold us together. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ302 Survey of Criminology
An examination of the nature of crime and delinquency in American society. Special focus on the development of criminological theory. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ310 Survey of Policing
The development of U.S. policing, stressing the relationship of police to local politics and the effects of civil service, reform movements, and technological change. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ305 Survey of Courts
Dynamic analysis of the American courts with special emphasis on political and economic contexts within which the courts work. Includes survey of recent research on the American legal system. Prereq: 18CJ101. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ321 Serial Criminals
The course will review historical explanations of serial criminals, as well as current biophysical theories and correlating psychosocial explanations. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ322 Gangs and Violent Youth
Historical and contemporary perspectives on gangs and gang subcultures; focus on gangs and other violent youthful offenders and...
problem-oriented policing strategies are explored as well as the role of implemented to deal with different crime problems. Community and environmental prevention; organizational policy development as a prevention strategy; the phenomena of "spill-over" violence; strategies for supervision. Practice in use of pre-sentence investigation and examination of innovations in community-based correctional alternatives. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ343 Community Corrections
Definition of probation and parole, treatment philosophies, and strategies for supervision. Practice in use of pre-sentence investigation and examination of innovations in community-based correctional alternatives. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ344 Philosophy of Punishment
Examines various dimensions of the juvenile offender to include a developmental perspective. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18CJ346 Institutional Corrections
An overview of case management and counseling strategies in correctional settings. Includes development of treatment plans, counseling theory, components of helping process, principles of confidentiality, correctional classification, and characteristics of program effectiveness. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18CJ347 Police and the Community
This course examines changing crime patterns across different communities over time and those police strategies that have been implemented to deal with different crime problems. Community and problem-oriented policing strategies are explored as well as the role of the community in controlling crime problems. BoK: SS. Credit Level: U. Credit Hrs: 3.00
Criminal Justice

**18CJ407**
Crime Prevention  
Credit Hrs: 3.00

**18CJ408**
Biosocial Criminology  
This class introduces undergraduate and graduate students to the growing literature linking biology to social development in general and to criminal behavior specifically. Special attention is paid to behavioral genetics and the heritability of traits, brain functioning and growth, and the functions of neurotransmitters. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**18CJ410**
Psychology of Criminal Behavior  
Principles of psychology as applied to crime causation and criminal justice system processing. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**18CJ420**
Criminal Procedures  
 Constitutional aspects of criminal procedures, to include: investigations, arrests, search and seizures, pre-trial processes, trial rights, sentencing, and appeals. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**18CJ421**
Criminal Law  
Substantive criminal law. Major areas to be covered include: basic principles of criminal law, an analysis of various offenses, parties to crime, and defenses. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**18CJ473**
Directed Studies  
Directed readings and conferences related to specific areas of criminal justice. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

**18CJ475**
Advanced Criminal Justice Field Placement  
Full-time placement in a criminal justice agency for integration of classroom learning with field experience. BoK: NA. Credit Level: U. Credit Hrs: 10.00

**18CJ484**
Juvenile Justice System  
Processing of the juvenile offender from the delinquent act through treatment; the complexity in defining juvenile delinquency. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**18CJ490**
Criminal Justice Research Methods  
Logic of social research methods, survey research, methods of evaluation research, sampling, and the contrast between quantitative and qualitative research. BoK: QR. Credit Level: U. Credit Hrs: 3.00

**18CJ491**
Criminal Justice Statistics  
Basic introduction to research and statistics in a criminal justice setting. Emphasis on measurement, descriptive, and inferential statistical methods. BoK: QR. Credit Level: U. Credit Hrs: 3.00

**18CJ495**
Criminal Justice Field Intern  
Agency placement, field observation, trainee programs, and seminar for discussion and supervision. To be planned by agency, supervisor, and student. Includes professional development seminar. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**18CJ496**
Criminal Justice Field Placement  
Agency placement, field observation, trainee programs, and seminar for discussion and supervision. To be planned by agency, supervisor, and student. Includes professional development seminar. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**18CJ610**
Intervention, Relapse, and Recovery  
This class is designed to help the advanced student understand the process of avoidance in recovery from addictions, mental health disorders, and behavioral illnesses. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

**18CJ660**
Early Intervention in Criminal Justice  
The early origins of criminality, the programs demonstrated to be effective in intervening with youngsters at risk for or involved in criminal behavior, and the prospects for early intervention as a correctional policy agenda. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

**18CJ700**
Seminar in Criminal Justice  
This course provides an overview of the theory and research on the criminal justice system, including police, courts, prosecution, and corrections. Special attention is given to the structural, organizational, and micro-level aspects of the criminal justice system and their interactions. Credit Level: G. Credit Hrs: 3.00

**18CJ701**
Pro-Seminar in Law and Social Control  
This course provides an overview of the theory and research on the nature of law, legal institutions, and related mechanisms of social control. Credit Level: G. Credit Hrs: 3.00

**18CJ702**
Criminal Justice Management  
Theory and research on complex organizations are applied in criminal justice settings. A contingency framework is developed through which alternative organizational goals, structures, staffing patterns, management styles, and planning strategies can be examined. Credit Level: G. Credit Hrs: 3.00

**18CJ703**
Criminal Justice Policy Analysis  
This course is an overview of policy implementation and effectiveness in the criminal justice system. Policies are evaluated on an informal and formal levels in the area of policing, courts, and corrections. Credit Level: G. Credit Hrs: 3.00

**18CJ720**
Seminar in Criminology  
This course presents an overview of the nature of crime in American society. Special focus is given to methods of measuring crime (official data, victimization data, and self-reports) and the major theoretical approaches to crime and crime control. Credit Level: G. Credit Hrs: 3.00

**18CJ741**
Basic Research Methods in Criminal Justice  
An introduction to research design as applied to crime and criminal justice research. Includes an introduction to the scientific method, sampling, and basic research designs. Credit Level: G. Credit Hrs: 3.00

**18CJ742**
Applied Criminal Justice Research  
This course examines issues concerning the conduct of research in criminal justice settings. Primary concern is with evaluation research. The course also includes research planning strategies, procedures for computer data analysis, and presentation of research findings. Credit Level: G. Credit Hrs: 3.00

**18CJ749**
Applied Statistics in Criminal Justice  
The focus of this course is on data analysis. Topics include univariate descriptive statistics, inductive statistics, and the general linear model. Special attention will be paid to applying these statistics to data analysis in policing and corrections for the purpose of writing research reports. Credit Level: G. Credit Hrs: 3.00

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H=University Honors course.
Criminal Justice

18CJ750
Basic Statistics in Criminal Justice
The purpose of this course is to provide an understanding of univariate descriptive statistics, probability theory, inductive statistics, and bivariate statistics through analysis of variance. Credit Level: G. Credit Hrs: 3.00

18CJ760
Theory and Philosophy of Corrections
This course explores the major justifications for corrections: rehabilitation, retribution, deterrence, and incapacitation. Each theory’s central principles, empirical adequacy, and policy implications are examined. Special consideration is given to the political ideology in forming debates on the purpose of corrections and to the difficulties of implementing correctional theories. Credit Level: G. Credit Hrs: 3.00

18CJ773
Directed Studies
Directed readings and conferences related to specific areas of criminal justice. Credit Level: G. Credit Hrs: 1.00-5.00

18CJ775
Field Experience
Agency placement, field observation, trainee programs, and seminar for discussion and supervision. To be planned by agency, supervisor, and student. Includes professional development seminar. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-9.00

18CJ780
Theory and Practice of Law Enforcement
This course examines the development and functions of policing in contemporary American society. The impact of social, economic, and political forces on the structure and definition of contemporary police agencies is employed through a review of classical and contemporary literature on policing. Contemporary problems and issues in law enforcement are analyzed within the context of recent research. Credit Level: G. Credit Hrs: 3.00

18CJ783
Special Topics in Crime Prevention
This course is a seminar on selected victimization and crime prevention issues. Credit Level: G. Credit Hrs: 3.00

18CJ784
Special Topics in Policing
This course is a seminar on selected issues of policing. Credit Level: G. Credit Hrs: 3.00

18CJ790
Individual Work in Criminal Justice
Supervised readings or research in criminal justice. Credit Level: G. Credit Hrs: 1.00-15.00

18CJ791
Special Topics in Criminal Justice
Seminar on selected issues in criminal justice. Credit Level: G. Credit Hrs: 3.00

18CJ798
Demonstration Project Research I
A two-quarter sequence in which students work with their Advisory Committees to demonstrate knowledge and skills of research in individual projects. Credit Level: G. Credit Hrs: 3.00

18CJ799
Demonstration Project Research II
See 18CJ798. Credit Level: G. Credit Hrs: 3.00

18CJ800
Juvenile Justice System
This course covers the systematic application of the juvenile justice system from arrest to detention and sentencing. Related issues covering diversion and programmatic treatment will be covered. Credit Level: G. Credit Hrs: 3.00

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Criminal Justice

18CJ801
Seminar in Legal Issues in Criminal Justice
This course examines law and legal change through a review of legal issues in criminal justice including search and seizure, rights of the accused, standards of evidence, and penal law. The course also familiarizes students with techniques of legal research and the use of computerized legal data bases. Specific topics and areas of emphasis may vary from year to year. Credit Level: G. Credit Hrs: 3.00

18CJ802
Seminar in Criminal Courts
This course describes and analyzes the development and functions of criminal courts as a component of the criminal justice process. Drawing upon available research and literature, attention is directed at the roles and activities of the various courtroom actors, and the adjudication and sentencing process. Credit Level: G. Credit Hrs: 3.00

18CJ804
Seminar in Critical Perspectives on Criminal Justice
This course examines critical and Marxist perspectives on crime. The course will focus on how the criminal justice system defines crime and how offenders are processed by the criminal justice system. In particular, racism and classism in the criminal justice system will be analyzed. Credit Level: G. Credit Hrs: 3.00

18CJ805
Seminar on Victimology
This course discusses the role of the victim across perspectives of crime causation, the criminal justice system, societal responsiveness, and measurement of victimization. Credit Level: G. Credit Hrs: 3.00

18CJ806
Gender and Crime
This course examines the role of gender and crime, including patterns of male and female crime as well as criminological explanations. Credit Level: G. Credit Hrs: 3.00

18CJ810
Seminar in Criminal Justice Theory
This course is an advanced doctoral seminar in criminal justice theory. Students will define theory and explore the process of theory construction. The class will identify theories of criminal justice practices and examine the implications of those theories for research into criminal justice practices and operations. Credit Level: G. Credit Hrs: 3.00

18CJ811
Seminar in Criminal Justice Process
This is an advanced doctoral seminar in the criminal justice process. This course is a substantive and methodological review of research on decision-making across the criminal justice system. The objective of the course is to tie together research on the criminal justice system and better prepare students to undertake research projects that have a systems perspective. Credit Level: G. Credit Hrs: 3.00

18CJ812
Seminar in Criminal Justice Program and Policy Evaluation
This course examines the important role that evaluation plays in furthering knowledge about criminal justice phenomena and the efficacy of social action undertaken to address them. Credit Level: G. Credit Hrs: 3.00

18CJ820
Structural Theories of Crime
This course reviews the major structural explanations of criminal behavior. Attention is given to each theory’s historical origin, central principles, conceptual rigor, empirical status, and policy implications. Credit Level: G. Credit Hrs: 3.00

18CJ821
Individual Theories of Crime
This course examines major individual-level theories of crime causation, including neurological, biochemical, developmental, psychodynamic, learning, cognitive, and social-psychological perspectives. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
18CJ821 Individual Theories of Crime
This course examines major individual-level theories of crime causation, including neurobiological, biochemical, developmental, psychodynamic, learning, cognitive, and social-psychological perspectives. Credit Level: G. Credit Hrs: 3.00

18CJ824 Criminal Offender
This course examines the individual criminal offender. Genetic, biological, psychological, and environmental factors are understood within a developmental paradigm. A special area of focus involves understanding behavior within and across contexts and time periods. Credit Level: G. Credit Hrs: 3.00

18CJ825 Seminar in White-Collar Crime
This course examines the etiology, types, explanations, costs, and control of white-collar crime. Special attention is paid to corporate crime and to the use of the criminal law in the control of this form of white-collar crime. Credit Level: G. Credit Hrs: 3.00

18CJ827 Seminar in Drugs and Crime
Examines the measurement of drug-involved behavior as well as the complex relationships between drugs and crime. The seminar also includes the examination of policy efforts toward controlling drug problems in the U.S. Credit Level: G. Credit Hrs: 3.00

18CJ828 Crime and the Lifecourse
This course examines issues and theories related to crime and the lifecourse. Credit Level: G. Credit Hrs: 3.00

18CJ829 Macro-Level Theories of Crime
This course will focus on macro-levels of approaches to crime and crime control. Credit Level: G. Credit Hrs: 3.00

18CJ830 Communities and Crime
This course explores community-level theory and research within criminology. Included is an explanation of theoretical and methodological issues such as: conceptualization and measurement of community, conceptualization and measurement of social disorder, structural versus cultural effects in community models, social versus physical environmental effects, the role of community disorder in community crime models, the role of fear in community crime models, macro-level interactions within community-level models of crime, and use of theoretical and multi-level models in community crime research. Credit Level: G. Credit Hrs: 3.00

18CJ839 Fundamentals of Research Methods
An introduction to research design as applied to crime and criminal justice research. Includes an introduction to the scientific method and basic research designs. Credit Level: G. Credit Hrs: 3.00

18CJ840 Intermediate Research Methods in Criminal Justice
This course explores intermediate research methods in criminal justice. Credit Level: G. Credit Hrs: 3.00

18CJ841 Advanced Research Methods in Criminal Justice
This course examines the philosophy of social sciences issues as they apply to criminal justice and criminological constructs, measurement of change, and meta-methodological issues in criminological research. Credit Level: G. Credit Hrs: 3.00

18CJ850 Intermediate Statistics in Criminal Justice
This course provides an understanding of all theory, logic, and mathematics underlying the general linear model. Credit Level: G.
Criminal Justice

18CJ880 Policing in Context
This course examines historical and contemporary views of police organization and management. The principal concern is with alternative conceptions of the police organizational goal and implications of these alternatives for police organization and management. Credit Level: G. Credit Hrs: 3.00

18CJ881 Police Decision-Making
The course begins with an examination of the relationship between communities and crime, drawing from the ecology of crime research tradition. The class then examines the role of the police in controlling crime in different types of communities, focusing on community policing and the role of communities in controlling crime. Credit Level: G. Credit Hrs: 3.00

18CJ882 Seminar in Police Effectiveness
This course examines alternative criteria by which the effectiveness of police can be assessed, and critically reviews empirical studies of police effectiveness. Principal emphasis is placed on contemporary police innovations. Credit Level: G. Credit Hrs: 3.00

18CJ890 Advanced Individual Work in Criminal Justice
Supervised readings of research on advanced topics in criminal justice. Credit Level: G. Credit Hrs: 1.00-15.00

18CJ891 Advanced Special Topics in Criminal Justice
Seminar on selected advanced issues in criminal justice. Credit Level: G. Credit Hrs: 3.00

18CJ900 Criminal Justice Research Practicum I
This course will focus on the nature of the publication process within the field of criminal justice. Topics will include a review of the components of a publishable article, how to prepare an article for submission to a journal, how to select a scholarly outlet for a manuscript, and how journals evaluate article submissions. Students also will be shown how to review an article for a journal and how to present research at a professional meeting. Credit Level: G. Credit Hrs: 3.00

18CJ901 Advanced Data Analysis
This course provides an understanding of reading, manipulating, and analyzing data in SPSS for Windows. The logic of computer programming in SPSS is a major focus. Specific methods of data analysis include all of the statistical methods covered in the three doctoral statistics courses in addition to factor analysis, two-stage least squares, and event history (survival) analysis. Credit Level: G. Credit Hrs: 3.00

18CJ902 Criminal Justice Research Tool: Longitudinal Data Analysis
This course is designed to teach students how to analyze longitudinal data using time series analysis and other statistical techniques. Credit Level: G. Credit Hrs: 3.00

18CJ903 Criminal Justice Research Tool Sampling
This course will provide students with an understanding of sampling and sampling techniques as related to social science research. Credit Level: G. Credit Hrs: 3.00

18CJ905 Criminal Justice Research Tool: Multi-Level Modeling
This course focuses on the analysis of multi-level models of analysis. Credit Level: G. Credit Hrs: 3.00

18CJ906 Criminal Justice Research Tool: Structural Equations
This course will provide students with an understanding of structural

H–University Honors course.
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Counseling

18CNSL501
Special Topics
Credit Hrs: 1.00-15.00

18CNSL601
Special Topics
Special topics in counseling-related areas (e.g., personal development, interpersonal skills, career development, life planning, concerns of special populations). BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-15.00

18CNSL773
Counseling Program Development and Evaluation
Methods of planning and evaluating short- and long-term counseling interventions and programs. Credit Level: G. Credit Hrs: 3.00

18CNSL775
Career Development
Basic theoretical concepts involved with career development. Credit Level: G. Credit Hrs: 3.00

18CNSL781
Professional Orientation to Counseling
Introduction to and survey of the counseling profession, including roles, settings, functions, ethics, and theories. Credit Level: G. Credit Hrs: 3.00

18CNSL783
Tests in Counseling
Study of testing and measurement techniques in counseling individuals and groups. Credit Level: G. Credit Hrs: 3.00

18CNSL784
Counseling Theories
The study of classical and modern theories guiding counseling interventions, with emphasis placed on integration of the various theories into a personalized therapeutic approach; the clarification of skills used in fitting clients with serious mental disorders and substance abuse disorders; and justification of clinical decisions within theoretical frameworks. Credit Level: G. Credit Hrs: 3.00

18CNSL787
Group Theory and Process
This course provides students with core knowledge and skill in group work. Students will be exposed to classical types of groups, the skills necessary to function effectively as a member, leader, and observer, best practices in group work including multicultural competence in groups. Through didactic instruction and within class practice, participants will become skillful participants in and leaders of small groups. Students will also learn how to design, facilitate, and co-facilitate time-limited, theme-oriented psychoeducational groups. Credit Level: G. Credit Hrs: 3.00

18CNSL809
Abnormal Human Behavior
The study of the causes, etiology, treatment, and prognosis of mental and emotional disorders including clinical disorders, substance use disorders, and disorders of personality; implications for counseling in school and community settings. Credit Level: G. Credit Hrs: 3.00

18CNSL819
Preventive Counseling
Conceptual knowledge and practical applications of prevention to assist late adolescent and adult clients in averting educational and psychological problems. Credit Level: G. Credit Hrs: 3.00

18CNSL831
Counseling Institute-A
Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL832
Counseling Institute-B
Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL833
Counseling Institute-C
Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL834
Counseling Institute-D
Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL835
Counseling Institute-E
Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL836
Counseling Institute-F
Summer Institute course of varying length, focused on a contemporary counseling issue of special interest that is not ordinarily addressed in the regular Counseling curriculum. See Division for details. Credit Level: G. Credit Hrs: 1.00-4.00

18CNSL841
Family Counseling I
Introduction to theories and practices of family and marital counseling with a variety of clients. Credit Level: G. Credit Hrs: 3.00

18CNSL842
Family Counseling II
Continuation of the theory and practice of family and marital counseling including practice using different counseling skills. Prereq: 18CNSL841. Credit Level: G. Credit Hrs: 3.00

18CNSL851
CRRNT ISS SCH COUN
CRRNT ISS SCH COUN Credit Level: G. Credit Hrs: 3.00

18CNSL852
Counseling in the Schools
This course provides an overview of the roles and responsibilities of school counselors, scope of services, and school counseling programs in K-12 school settings. Students will review the historical background and current issues related to the school counseling profession and K-12 students. Credit Level: G. Credit Hrs: 3.00

18CNSL855
Community Counseling in Mental Health Settings
This course explores community counseling in mental health settings. Prereq: 18CNSL781. Credit Level: G. Credit Hrs: 3.00

18CNSL861
Chemical Dependency I
Explores the various methods of treatment for persons with chemical dependency, as well as issues influencing the field. Credit Level: G. Credit Hrs: 3.00

18CNSL862
Chemical Dependency II
Analyzes the various theories and methods and their relevance to counseling individuals and their families with problems of substance abuse. Prereq: 18CNSL861. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Counseling Pre-Practicum
Supervised experiences and critiques of taped materials to learn opening, closing, and reflective techniques in counseling. Normally taken with 18CNSL784. Credit Level: G. Credit Hrs: 3.00

Advanced Counseling Skills
Supervised experience in counseling through role-playing, recorded interviews, observation analysis, and evaluation of interviewing techniques. Credit Level: G. Credit Hrs: 3.00

Field Practicum
Continuation of 18CNSL886. Supervised experience in counseling through role playing, recorded interviews, observation analysis, evaluation of interviewing techniques. Prereq: 18CNSL886. Credit Level: G. Credit Hrs: 3.00

Master's Counseling Internship
Supervised counseling experience. Credit Level: G. Credit Hrs: 1.00-12.00

Advanced Master's Counseling Internship
Advanced master's supervised counseling experience. Prereq: 18CNSL888. Credit Level: G. Credit Hrs: 1.00-9.00

Child Counseling
Counseling focused on counseling children. Credit Level: G. Credit Hrs: 3.00

Management in Human Services
Introduction of components necessary in managing a human service agency or similar type of organizations. Credit Level: G. Credit Hrs: 3.00

Introduction to Problem Identification and Diagnosis in Counseling
The study of multidimensional assessment of, diagnosis of, and documentation of the necessity for and conduct of treatment for mental disorders and substance use disorders. On completion of this course, the student will be able to conduct and document a biopsychosocial diagnostic assessment, a multiaxial diagnosis of mental disorders and substance use disorders using the current edition of the DSM, prepare a comprehensive treatment plan, and prepare progress notes for a client's chart. Credit Level: G. Credit Hrs: 3.00

Credits Level: G. Credit Hrs: 3.00

Ethical, Professional, and Legal Issues in Counseling
Group discussion of ethical conduct, professional practice, licensure and legal issues, and values conflicts in counseling. Credit Level: G. Credit Hrs: 3.00

Advanced Practicum in Counseling
Advanced Practicum in teaching and supervising counselors; includes an experimental requirement. Credit Level: G. Credit Hrs: 3.00

Testing and Assessment
The use of testing and assessment techniques in assessing mental and emotional disorders, substance use disorders, and treatment outcomes in school and community settings. Credit Level: G. Credit Hrs: 3.00

Counseling ProSeminar I: Individuals and Families
Updates knowledge of current concepts and trends in individual and family issues pertinent to ecological counseling. Perm of Instructor.

College of Education, Criminal Justice, and Human Services

H=University Honors course.
College of Education, Criminal Justice, and Human Services

Early Childhood Education

18ECE242
Preschool Student Teaching
application. AS degree Cohort only. Coreq: 18ECE235. BoK: NA. Credit Level: U. Credit Hrs: 2.00-6.00

18ECE243
Preschool Internship
Extension of Preschool Student Teaching with additional responsibilities. By application only. Placements are half days M-F. BoK: NA. Credit Level: U. Credit Hrs: 6.00

18ECE244
Early Childhood Education Internship for Family Child Care
The FCC Internship is the culminating experience in the Early Care and Education Associate of Arts degree program. Candidates participate in their own family child care homes with a mixed age group of children from birth through age 12 under the supervision of a UC instructor. Candidates are expected to assume and manage the full range of teaching/caregiving responsibilities for the group of children in order to fulfill course requirements. BoK: NA. Credit Level: U. Credit Hrs: 6.00

18ECE251
Infant/Toddler Programs
Design and implementation of developmentally appropriate programs for infants and toddlers. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE252
Practicum Seminar in Early Childhood I
In this seminar, students will be provided with opportunities to analyze experiences gained in an approved early childhood education program, reviewing theory, teaching skills, team teaching, classroom management, lesson planning, and evaluation. Coreq: 18ECE231. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18ECE253
Practicum Seminar in Early Childhood II
In this seminar, students will be provided with opportunities to analyze experiences gained in an approved early childhood education program, reviewing theory, teaching skills, team teaching, classroom management, lesson planning, and evaluation. Coreq: 18ECE243. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18ECE256
Creative Arts in Early Childhood Education
An examination of art, music, movement, and dramatic play curriculum content as well as strategies and techniques for involving young children in aesthetic experiences. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE257
Integrated Preschool Curriculum
Investigate preschool curriculum with respect to Ohio early education learning standards and content integration. AS degree Cohort only. Coreq: 18ECE256. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE261
Families and Culture in Early Childhood Education
Educational considerations in working with young children from a variety of cultural and ethnic backgrounds. Specific issues related to establishing culturally appropriate, family centered programs will be discussed. AS degree Cohort only. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18ECE262
Observation, Assessment, and Planning in Early Childhood
Presentation of techniques for observing, recording, and assessing the behavior of young children. Discussion of strategies for data collection and use of data for long- and short-term planning. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE264
Administration of Early Childhood Programs
Overview of administrative duties required in managing a variety of early childhood programs. Discussion of licensing standards, funding

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H=University Honors course.
Early Childhood Education

18ECE264 Administration of Early Childhood Programs
issues, operating budgets, staff recruitment and retention, policies and procedures, and staff development. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE266 School Age Care
This course is intended for those who will be providing school age care in schools, centers, or family child care homes. Designed to help students understand and meet the unique needs of school age children through appropriate environments, activities, and guidance. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE268 Special Topics in Early Childhood Education
In-depth study of selected topics in early childhood education. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE271 Mentoring Adults in Early Childhood Programs
Overview of methods and principles of supervising preservice and/or new teachers in the field of early childhood education. Designed for experienced classroom teachers who have demonstrated strong skills in providing a developmentally appropriate early childhood program. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18ECE276 Child Development I
Prenatal and early growth and development through age 6. Prereq: 15PSYC101. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ECE277 Child Development II
Growth and development of children in the school age and adolescent periods. Observation in schools and community groups. Prereq: 18ECE276. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18ECE278 Health, Safety, and Nutrition in Early Childhood Education
Discussion of health, safety, and nutrition issues in early childhood settings. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE290 Early Childhood Social Development and Self Regulation
Investigation of the building blocks for fostering mentally, emotionally, and socially healthy children ages birth to five. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE292 Introduction to Inclusive Practices
Introduction to teaching practices and services for children with developmental delays, ages birth to five. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE400 Developmental Concerns
Issues related to preschool, kindergarten, and primary grade children (who are at risk, demonstrate developmental delays, are gifted/creative/talented, or have identified disabilities) and their families, including the identification/placement process, IEP's, parents' rights, etc. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18ECE401 Accommodations and Adaptations in Early Childhood Education
In this course, designing appropriate family and child assessment-based Individualized Education Plans (IEP's) and Individual Family Service Plans (IFSP's) will be addressed. Also, collaborative problem solving, accommodations, classroom management, interventions, related services, etc. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE402 Families in Early Childhood Special Education
Study of family centered practices in working with families who have children with disabilities or other special needs. Cohort only. BoK: NA.

18ECE403 Classroom Management
Development of skills and competencies necessary for effective functioning in a setting with children ages 3-8. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE405 Infant Practicum
This field experience will provide the student with onsite observation and interaction with infants. Infants are defined as birth to 18 months. Prereq: 18ECE251, 18ECE412. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE411 Play and Development
This course focuses on child development as it specifically relates to young children's play. Topics include: play and its connection to learning; play and how it relates to development; and the teacher's role in facilitating play, development, and learning in the early childhood classroom. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE412 Selfhood in Infants and Toddlers
Study of selfhood in young children and its implications for theoretical and philosophical nurturing practices. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE415 Foundations of Literacy
This course is designed to assist students in the development of understanding of the reading and writing process for young children. Focus is on emergent literacy and methods for preschool literacy-rich environments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE430 Language Development in Early Childhood Special Education
This course is an introduction to typical and atypical language development in early childhood education with a focus on young children ages birth to age five. Implications of ethnic, linguistic, psychological, and cultural differences for language learning are examined. The role of the teacher in enhancing language development in young children is discussed. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ECE460 Early Childhood Education Phonics I
This course will investigate research-based and historical-cultural contexts for phonics instruction in early childhood education. Cohort only. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00
Action research methods are implemented to study and improve childhood education program evaluation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

In-depth study of assessment of children ages birth to eight and early lesson plans, and implement plans under supervision. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Methods of teaching math/science in preschool within an integrated curriculum and contexts that have contributed to current practices in educating young children in math and science. Focus is on pre-K through grade 1. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

An introductory course on the principles of developmentally appropriate practice and the history of early childhood education. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Capstone course for the Early Childhood Education Birth to Five option. Explore early childhood environments as a context for documenting children's work and reflecting on its meaning. Coreq: 18ECE408. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Supervised observation and participation in preschool settings. Half days, M-F. By application only. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Facilitating the development of reading and writing skills in kindergarten and grade 1. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Facilitating the development of reading and writing skills in primary grades. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Supervised observation and participation two or more half-days per week in an approved kindergarten. Times for participation and seminars to be arranged. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Practicum for Art Education majors at the Arlitt Child Development Center. Students observe early childhood education practice, create lesson plans, and implement plans under supervision. BoK: NA. Credit Level: U. Credit Hrs: 2.00

In-depth study of assessment of children ages birth to eight and early childhood education program evaluation. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Action research methods are implemented to study and improve practice in early childhood environments. Generally taken with

H—University Honors course.
Early Childhood Education

18ECE632 Internship II: Early Childhood Education
A full year, part-time teaching experience in a professional practice school or site. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-7.00

18ECE633 Intern III: Early Childhood Education
Third quarter of Internship in primary grades in a professional practice or professional development school. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-12.00

18ECE672 Kindergarten Education
Investigation into the physical, social, emotional, and cognitive development of kindergarten-age children with an emphasis on an integrated, inclusive setting. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE673 Administration and Supervision in Early Childhood Education
Processes, skills, and problems of administration and supervision for those in leadership roles in early childhood education. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18ECE674 ECE Special Topics
This course will provide special education personnel with a thorough understanding of the tenets of preschool education philosophy, curriculum, and instruction for all children. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-9.00

18ECE676 Practicum/Intern Early Childhood Education
Graduate level field experience for non-majors. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

18ECE681 Integrated Curriculum in Early Childhood Education
An integrated, differentiated approach to teaching K-3 grades with an emphasis on problem-solving and application of knowledge to real-life situations. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18ECE710 Young Learners with Disabilities
Developmental patterns of specific disabilities and designing IEP’s and supports for young children with disabilities and their families. Credit Level: G. Credit Hrs: 3.00

18ECE755 Contexts of Early Intervention
Foundation for understanding different contexts in early intervention, including ecological, sociopolitical, funding, culture, and family, in relation to settings such as a hospital, home, public and private centers, schools, and community agencies. Credit Level: G. Credit Hrs: 3.00

18ECE762 Static Web Programming for Educators
This course covers how to create education-based web pages in HTML and store them on a webserver. Credit Level: G. Credit Hrs: 3.00

18ECE770 Survey of Early Childhood Education
Developmentally-based philosophy of early childhood education, history, types of programs, and basic ECE curriculum. Credit Level: G. Credit Hrs: 3.00

18ECE771 Workshop ECE
Graduate level topical workshop. Credit Level: G. Credit Hrs: 1.00-9.00

18ECE772 Early Childhood Education Laboratory and Seminar
Practicum experience in early childhood centers, five half-days each week plus seminar. Credit Level: G. Credit Hrs: 2.00-6.00

College of Education, Criminal Justice, and Human Services

Early Childhood Education

18ECE773 Documenting Children's Learning and Development
Techniques for observing and recording linguistic, emotional, social, physical, and cognitive behaviors of normal and exceptional children. Credit Level: G. Credit Hrs: 3.00

18ECE774 Social Competence in Early Childhood Settings
Investigation of strategies and techniques used by teachers to guide children to engage in acceptable behaviors in the early childhood classroom. Emphasis is on the theory underlying practice. Credit Level: G. Credit Hrs: 3.00

18ECE775 Constructivism in Education
This course examines the theoretical foundation and practical implications of the constructivist educational perspective. Focus is on the theories of Piaget and Vygotsky. Credit Level: G. Credit Hrs: 3.00

18ECE776 Curriculum Analysis in Early Childhood Education
A theoretical and practical investigation of curriculum planning for early childhood programs. Credit Level: G. Credit Hrs: 3.00

18ECE777 Trends and Issues in Early Childhood Education
Controversial areas and new directions in early childhood education; legislation, social change, and future expectations. Focuses on the role of the child advocate. Credit Level: G. Credit Hrs: 3.00

18ECE778 Child Development Theory and Research
Discussion of selected problems in early childhood education. Credit Level: G. Credit Hrs: 3.00-9.00

18ECE779 Thesis/Project Guidance
Individual guidance for Early Childhood Education graduate students who are working on a culminating experience in the master's degree program. Credit Level: G. Credit Hrs: 1.00-15.00

18ECE780 Team Models in Early Intervention
A foundation for understanding early intervention team models, including team building, group asset development, communication, and leadership, specific to early intervention. Credit Level: G. Credit Hrs: 3.00

18ECE781 Evidenced-Based Practices in Early Intervention
Methods and management techniques in providing appropriate developmental experiences for children with disabilities in groups of typically developing children. Credit Level: G. Credit Hrs: 3.00

18ECE782 Play and Development
Review theories and research on play and the relationship to child development. Examine issues related to the interface of children’s play and the early childhood classroom. Credit Level: G. Credit Hrs: 3.00

18ECE855 Early Intervention Internship
An experience with young children with disabilities, birth through five years of age. Interns are placed in community agencies, early programs, and programs for preschool children with disabilities. Credit Level: G. Credit Hrs: 3.00-15.00

18ECE871 Independent Study in Early Childhood Education
Independent work for students in the area of early childhood education. Credit Level: G. Credit Hrs: 1.00-15.00

18ECE872 Readings in Early Childhood Education
Special readings for students who wish to do in-depth exploration of an

H=University Honors course.
### Early Childhood Education

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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Level</th>
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<tbody>
<tr>
<td>18ECE872</td>
<td>Readings in Early Childhood Education</td>
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<td>1.00-6.00</td>
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<tr>
<td>18ECE876</td>
<td>Practicum/Internship in Early Childhood Education</td>
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### Educational Leadership

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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Level</th>
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<tbody>
<tr>
<td>18EDLD601</td>
<td>Interpersonal Communications</td>
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<tr>
<td></td>
<td>Teachers and administrators develop communication</td>
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<td>skills to improve their communications with</td>
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<td>students, the community, and each other.</td>
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<tr>
<td>18EDLD736</td>
<td>Foundations of Educational Administration</td>
<td>G</td>
<td>1.00-4.00</td>
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<tr>
<td>18EDLD737</td>
<td>Foundations of Educational Administration</td>
<td>G</td>
<td>1.00-4.00</td>
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<tr>
<td>18EDLD738</td>
<td>Foundations of Educational Administration</td>
<td>G</td>
<td>1.00-4.00</td>
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<tr>
<td>18EDLD739</td>
<td>Supervision of Instruction</td>
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<tr>
<td></td>
<td>Analysis of historical perspectives of supervision</td>
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<td>and the contextual and organization theories</td>
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<td>that define the workplace.</td>
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<td>Application of skills, strategies, and</td>
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<td>individual perspectives for restructuring/reinvent</td>
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<td>ing education through the development of new</td>
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<td>visions of supervision.</td>
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<td>Credit Level: G. Credit Hrs: 4.00</td>
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<tr>
<td>18EDLD743</td>
<td>Computer Applications in School Administration</td>
<td>G</td>
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<tr>
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<td>Experience in developing effective school</td>
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<td>management strategies through the use of</td>
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<td>microcomputer technology.</td>
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<td>18EDLD772</td>
<td>Understanding Educational Organizations</td>
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<tr>
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<td>Study of organizational theories and their</td>
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<td>application in education.</td>
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<td>Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>18EDLD773</td>
<td>Collective Bargaining in Education</td>
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<td>Process of communications, contracts,</td>
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<td>negotiation laws, sanctions, strikes,</td>
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<td>and roles of individuals.</td>
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<td>Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>18EDLD774</td>
<td>Principles of Curriculum Organization and</td>
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<td>Development</td>
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<td>Comprehensive curriculum designs for learning</td>
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<td>experiences including educational</td>
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<td>philosophical, social, cultural, and</td>
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<td>psychological variables.</td>
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<td>Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>18EDLD775P</td>
<td>Understanding Educational Organizations: Licensure</td>
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<td>This course is part of a nine-credit-hour</td>
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<td>sequence covering the attributes of school</td>
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<td>superintendentcy, educational organizations,</td>
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<td>and ethics. Students enrolled in this class</td>
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<td>are completing the requirements</td>
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### College of Education, Criminal Justice, and Human Services

### Educational Leadership

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<th>Course Code</th>
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<tbody>
<tr>
<td>18EDLD775P</td>
<td>Understanding Educational Organizations: Licensure</td>
<td>G</td>
<td>1.00-6.00</td>
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<td>for superintendent licensure.</td>
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<tr>
<td>18EDLD776P</td>
<td>Collective Bargaining in Educational Administration</td>
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<td>Course includes the process of communication,</td>
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<td>procedures, legal counsel, negotiation laws,</td>
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<td>individuals. Credit Level: G. Credit Hrs: 3.00</td>
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<tr>
<td>18EDLD780P</td>
<td>Educational Leadership: Licensure</td>
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<td>3.00-4.00</td>
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<td>This course is directed toward developing</td>
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<td>educational leadership in individuals who</td>
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<td>are preparing for superintendent licensure.</td>
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<td>Students will develop an understanding of</td>
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<td>leadership definitions and theories, assessment,</td>
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<td>research, practice, and training.</td>
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<td>Credit Level: G. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>18EDLD782</td>
<td>Planned Field Experience I and Seminar in</td>
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<td>Educational Administration</td>
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<td>Planned field experience to provide actual</td>
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<td>experience for individuals as required for</td>
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<td>licensure in Ohio. Credit Level: G. Credit Hrs:</td>
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<td>18EDLD783</td>
<td>School Business Management</td>
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<td>Administration of school business affairs.</td>
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<td>18EDLD803</td>
<td>A Study of Change and Change Techniques</td>
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<td>Change process theory, research, models, and</td>
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<td>practice. Credit Level: G. Credit Hrs:</td>
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<td>3.00-4.00</td>
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<tr>
<td>18EDLD810</td>
<td>Innovations in Curriculum</td>
<td>G</td>
<td>3.00</td>
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<td></td>
<td>Students will develop an understanding of</td>
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<td>curriculum innovations, sources of innovations,</td>
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<td>and the stages of planned change in implementing</td>
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<td>innovations. Credit Level: G. Credit Hrs: 3.00</td>
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<td>18EDLD812</td>
<td>Data Use for School Improvement</td>
<td>G</td>
<td>3.00</td>
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<td>Evaluation in this course is the process of</td>
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<td>seeking, analyzing, and interpreting information</td>
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<td>for use in directing the development,</td>
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<td>implementation, and improvement of</td>
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<td>educational/curriculum programs.</td>
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<td>Credit Level: G. Credit Hrs: 3.00</td>
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<td>18EDLD814</td>
<td>Program Evaluation</td>
<td>G</td>
<td>3.00</td>
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<td>A review of the conceptual and technical</td>
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<td>skills in program evaluation for improved</td>
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<td>educational decision making.</td>
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<td>Credit Level: G. Credit Hrs: 3.00</td>
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<td>18EDLD815P</td>
<td>Program Evaluation</td>
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<td>Course is designed as an in-depth exploration of</td>
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<td>a variety of approaches to program evaluation.</td>
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<td>Class will focus on uses of evaluation methods</td>
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<td>to improve organizational performance, including</td>
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<td>aspects of change processes, curricula, training</td>
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<td>programs, and ongoing improvement and</td>
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<td>accreditation. Credit Level: G. Credit Hrs: 3.00</td>
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<td>18EDLD816</td>
<td>Educational Policy Analysis</td>
<td>G</td>
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<td>Methods and techniques of educational policy</td>
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<td>analysis and the application of analytical tools</td>
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<td>Credit Level: G. Credit Hrs: 3.00</td>
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<td>18EDLD850</td>
<td>LGBTQ Issues and Educational Leadership</td>
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<td>This course explores multiple theoretical frame-</td>
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<td>works regarding identity and sexuality and their</td>
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<td>applications for educational leadership Credit</td>
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H=University Honors course.
EDLD890 Budgeting, Appropriating, and Accounting
Credit Hrs: 3.00
Examination of important relationships between education and the economy.
Credit Level: G.

EDLD891 Ethics and Educational Leadership
Credit Hrs: 3.00
This course is designed to introduce you to a variety of theories of ethical thought and their relationship to educational leadership.
Credit Level: G.

EDLD892 Special Program Administration
Credit Hrs: 1.00-4.00
This is a broad designation for a topic selected by the professor. Consult specific program via announcement from the listed instructor.
Credit Level: G.

EDLD893 Ethics of Educational Leadership: Licensure
Credit Hrs: 3.00
This course is part of a nine-credit-hour sequence covering the attributes of school superintendency, educational organizations, and ethics. Students enrolled in this class are completing the requirements for superintendency licensure.
Credit Level: G.

EDLD894 Board Relations
Credit Hrs: 1.00-6.00
For educators who work with nonprofit boards of control.
Credit Level: G.

EDLD895 Internship I: Licensure
Credit Hrs: 1.00-6.00
This planned field experience is designed for educational administrators who are completing the requirements for licensure for superintendent positions. The student is required to secure a district site and cooperating, licensed, practicing district-level administrator.
Credit Level: G.

EDLD896 Internship II: Licensure
Credit Hrs: 1.00-6.00
This planned field experience is designed for educational administrators who are completing the requirements for licensure for superintendent positions. The student is required to secure a district site and cooperating, licensed, practicing district-level administrator.
Credit Level: G.

EDLD897 Superintendency
Credit Hrs: 1.00-6.00
This course is to increase student understanding of the complexity of leading in the contemporary environment. To provide insights in the everyday world of individuals in this role to provide opportunity for knowledge, skill & attitude development to prepare the student in leadership.
Credit Level: G.

EDLD898 Special Program Administration
Credit Hrs: 1.00-4.00
This is a broad designation for a topic selected by the professor. Consult specific program via announcement from the listed instructor.
Credit Level: G.

EDLD899 Ethics of Educational Leadership: Licensure
Credit Hrs: 3.00
This course is part of a nine-credit-hour sequence covering the attributes of school superintendency, educational organizations, and ethics. Students enrolled in this class are completing the requirements for superintendency licensure.
Credit Level: G.

EDST201 Schooling and Teaching in America
Credit Hrs: 1.00-15.00
This course explores teaching in the United States with attention to
Education and Sex-Role Stereotyping

18EDST675
Human Learning and Development in Education
This course examines the complex phenomena of learning, motivation, and human development, and how teachers can apply this knowledge in their practices. Major theories are covered on behaviorism, cognitive and social influences, motivation, and other factors affecting development across the lifespan. Emphasis is on knowledge of learners, including individual differences and multiple intelligences; exceptionalities; language acquisition; and home and community influences. Also covered are various pedagogical approaches that recognize developmentally appropriate pedagogical knowledge, assessment, and classroom management techniques. BoK: NA. Credit Level: U. Credit Hrs: 4.00

18EDST301
Human Development
Physical, cognitive, social-emotional, and personality development of children up to six years. Prereq: 15PSYC101. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18EDST302
Human Development
Physical, cognitive, social-emotional, and personality development through middle childhood and adolescence. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18EDST303
Human Development
Developmental characteristics through young adulthood to old age. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18EDST426
Social Inequalities and Schooling
Course explores social inequalities in the practice of education and contemporary approaches for achieving social equity. BoK: HU, SE. Credit Level: U. Credit Hrs: 3.00

18EDST575
Independent Study
Special topics in educational foundations on an individual basis. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18EDST631
Human Learning Seminar: Secondary
Introduction to analysis of learning in cognitive psychology; conceptual frameworks for understanding individual learners. Coreq: 18SEC511. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

18EDST633
Classroom Assessment and Evaluation
Students will use performance-based and classroom assessment techniques to determine how well students are learning. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18EDST675
Human Learning
Theories of school learning and instruction and their application to classroom teaching. BoK: SS. Credit Level: U, G. Credit Hrs: 3.00

18EDST680
Education and Sex-Role Stereotyping
The nature of sex-role stereotyping and ways to reduce bias in education. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

College of Education, Criminal Justice, and Human Services

Educational Studies

18EDST681
Seminar on Peace Education
A seminar for students of peace education. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST682
Conflict Resolution
Surveys the theories and practices of conflict resolution utilized in educational settings. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST683
Peace Education and Popular Culture
Establishes a dialogue among teachers utilizing popular culture in the development of values of peace and justice among students. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST684
Liberation Philosophy
An overview of the perspectives of liberation philosophy and theology including feminist, African-American, Hispanic, Asian, and Latin American orientations. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST690
Introduction to Peace Education
A survey of issues in peace education approached from interdisciplinary perspectives. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST691
General Mediation
The course provides students with the sufficient theoretical grounding and skills to enable them to function as facilitators in the mediation process and to administer peer mediation programs. BoK: SE. Credit Level: G. Credit Hrs: 3.00

18EDST692
Cooperative Discipline
The course provides teachers with a specialized body of theory and skills to enable them to create a classroom climate which will prevent many discipline problems. BoK: SE. Credit Level: G. Credit Hrs: 3.00

18EDST693
Alternatives to Violence
This survey of the historical, social, and psychological perspectives on non-violent alternatives to conflict resolution provides students with a sufficient theoretical grounding and set of skills to enable them to facilitate the non-violent resolutions of conflicts. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18EDST685P
Seminar in Violence Prevention
Seminar for students interested in Peace Education, with an emphasis on theories and skills related to violence prevention. Credit Level: G. Credit Hrs: 3.00

18EDST686P
Peace Education and Media Literacy
This course establishes a dialogue among teachers utilizing popular culture in the development of values of peace and justice among students. Credit Level: G. Credit Hrs: 3.00

18EDST694P
Students’ Creative Response to Conflict
Survey of historical, social, and psychological perspectives on non-violent alternatives to conflict resolution, with a focus on students. Credit Level: G. Credit Hrs: 3.00

18EDST695P
Introduction to Cooperative Discipline
This course provides teachers with a specialized body of theory and skills which enables them to prevent discipline problems. Credit Level: G. Credit Hrs: 3.00

18EDST696P
Mediation for Classroom Teachers
This course provides students with theoretical grounding and skills to
College of Education, Criminal Justice, and Human Services

Educational Studies

18EDST696P
Mediation for Classroom Teachers
enable them to function as facilitators in the mediation process and to administer peer mediation programs. Credit Level: G. Credit Hrs: 3.00

18EDST701
Politics of Education
Development of educational policy at the local, state, and national levels. Credit Level: G. Credit Hrs: 3.00

18EDST710
Introductory Statistical Methods
This course introduces fundamental techniques of data analysis and statistical inference, including descriptive statistics, t-tests, and correlation commonly used in the educational and behavioral sciences. Credit Level: G. Credit Hrs: 3.00

18EDST711
Intermediate Statistical Methods
This course covers essential techniques of data analysis and statistical inference, including ANOVA, ANCOVA, simple regression, and nonparametric tests commonly used in the educational and behavioral sciences. Credit Level: G. Credit Hrs: 3.00

18EDST721
Measurement and Assessment
Fundamentals of designing, developing, and evaluating data collection tools for research instrumentation and large-scale assessment. Credit Level: G. Credit Hrs: 3.00

18EDST735
Human Development: Early Childhood
Addresses human development from birth through age six. Credit Level: G. Credit Hrs: 3.00

18EDST736
Human Development: Middle Childhood
Addresses human development from age six through age twelve. Credit Level: G. Credit Hrs: 3.00

18EDST737
Human Development: Adolescence
Addresses human development from puberty through the end of adolescence. Credit Level: G. Credit Hrs: 3.00

18EDST738
Human Development: Adulthood
Addresses the developmental tasks of early and middle adulthood. Credit Level: G. Credit Hrs: 3.00

18EDST739
Human Development: Aging
Developmental tasks of the later years of life. Credit Level: G. Credit Hrs: 3.00

18EDST740
Adult Relationships
Seminar for advanced students in human development. Different topics selected each term; i.e., intimacy, work relationships, friendship. Grading: Pass/Fail. Credit Level: G. Credit Hrs: 3.00

18EDST745
Educational Sociology
Analysis and critique of schooling as an institution from a wide array of theoretical perspectives. Credit Level: G. Credit Hrs: 3.00

18EDST747
Social Theories in Education
Historical overview of classical, interpretive, and contemporary social theories in education. Credit Level: G. Credit Hrs: 3.00

18EDST750
Classroom-Based Action Research and Reflective Practice
Introduction to the practice of educational action research. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Multivariate Analysis Of Relationships
regression, canonical correlation, logistical regression, factor analysis, and categorical data analysis, that fall under the umbrella of multivariate methods in educational research and behavioral sciences. Credit Level: G. Credit Hrs: 3.00

Advanced Multivariate Analysis: Structural Modeling And Multilevel Modeling
This course introduces students to two advanced techniques, structural equation modeling and multilevel modeling, that fall under the umbrella of multivariate methods in educational research and behavioral sciences. Credit Level: G. Credit Hrs: 3.00

Quantitative Research Synthesis
Addresses the problem of the accumulation of evidence in scientific research through the use of quantitative methods for meta analysis and research synthesis. Credit Level: G. Credit Hrs: 3.00

Experimental Research
Design and analysis of simple and complex experimental studies, including randomized design, repeated-measure design, nested design, and mixed design. Credit Level: G. Credit Hrs: 3.00

Pro-Seminar in Educational Foundations
Required for all first-year doctoral students. Credit Level: G. Credit Hrs: 3.00

Pro-Seminar in Educational Foundations
See 18EDST901. Credit Level: G. Credit Hrs: 3.00

Pro-Seminar in Educational Foundations
See 18EDST901. Credit Level: G. Credit Hrs: 3.00

Individual Dissertation Guidance
Students work with adviser in the process of preparing a dissertation. Credit Level: G. Credit Hrs: 1.00-15.00

Seminar in Educational Research
Selected topics in educational research on social foundations, psychological foundations, and research methodology. Credit Level: G. Credit Hrs: 1.00-4.00

Elementary Education

Elementary Education: Future Alternatives
Investigation of issues and problems affecting elementary education of the future: alternative schools, programs, and paths. Credit Level: G. Credit Hrs: 3.00

Principles and Practices in Elementary Education
Examines contemporary practices and innovations in elementary school programs. Credit Level: G. Credit Hrs: 3.00

Individual Study in Elementary Education
Hrs. and cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-6.00

Readings in Elementary Education
Hrs. and cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-6.00

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Improving Pronunciation
Improving Pronunciation is a classroom-based course that focuses on comprehensible articulation of vowels and consonants as well as the rhythm, stress and intonation of North American English speech. This course should be taken by students who are already fluent in English, but who want to improve their pronunciation skills for more effective communication.

Improving Pronunciation
This course is designed to provide non-native speakers of English with an opportunity to develop and practice basic skills needed to prepare for entrance into academic reading and writing courses. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Introduction to Academic Reading and Writing
This workshop course is designed to introduce non-native speakers of English to the skills required for successful academic reading and writing in preparation for 18ESL100. BoK: NA. Credit Level: U. Credit Hrs: 6.00

Academic Reading and Writing Strategies
This course is designed for non-native speakers of English who need to improve their academic reading and writing skills in preparation for freshman English. BoK: NA. Credit Level: U. Credit Hrs: 6.00

Communication and Listening Skills
This course is designed to assist non-native English speaking students to further develop their conversational English fluency. It focuses primarily on perfecting the vocabulary and fluency necessary to execute speech acts that are basic to everyday conversation. Students are expected to practice speaking and listening through role-plays, discussions, and other speaking activities. Credit Level: U. Credit Hrs: 3.00

Speaking/Listening Skills I
The goals of this course are to increase oral fluency and to improve listening comprehension in both academic and everyday conversation. Students will work on improving their recognition and use of idioms. English while participating in class discussions, as well as express opinions, debate, and negotiate conversation. Content information will be provided through lecture, readings, discussion, role-play, interviews and observations. Credit Level: U. Credit Hrs: 3.00

Speaking/Listening Skills II
This class will assist students achieving intermediate academic listening and speaking skills. Students will enhance their skills in giving presentations, debates, and class discussion. Students will develop critical thinking skills through negotiation, expression of opinions and speech. Students will broaden their academic vocabulary through the exploration of collocations and idioms. Aspects of American culture, especially university culture, will be covered as well. Credit Level: U. Credit Hrs: 3.00
English as a Second Language

18ESL605
Improving Pronunciation
communication through practice activities that include speech/sound analysis, dialogue generation, role-play, and simulation and ethnographic assignments. Prereq: OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ESL606
American Culture and Communication
This course will focus on the cultural aspects of verbal and non-verbal behavior, values, and communication styles while developing effective communication patterns in professional and pre-professional settings. Prereq: 18ESL603, OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ESL607
Strategies for Academic Success
This course is designed to enhance student skills utilizing techniques for effective listening, note-taking strategies, reading, and writing skills for studying. In addition, it will introduce the student to the expectations of the American classroom culture. Prereq: OEPT, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ESL608
Editing Skills for ESL Writers
This course is designed for international graduate students who need to improve their writing skills in order to become competent in basic academic English in the style commonly accepted in American universities. At the end of the course, the students will be able to recognize and use vocabulary and grammatical structures common in academic writing and to produce texts employing a variety of modes of discourse. Prereq: Placement Test or Permission of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ESL609
Introduction to Academic Writing
This course serves as a continuation of 18ESL608 and is designed to familiarize students with the basic genres of academic writing seen across the disciplines and the modes of discourse that often characterize the writing in these genres. Students will be responsible for producing three major writing assignments: Abstract, Research Plan, and Literature Review, all of which will draw on authentic models from the specific disciplines of class members. Several shorter papers will also be required through which students will become more familiar with some of the modes of discourse which inform various types of academic writing: summary, extended definition, process, critique, character analysis, dialogue generation, role-play, and simulation. Many class periods will be conducted in a workshop format, and students will be expected to share their own writing in progress as well as contribute thoughtfully and constructively on the works of their peers. Prereq: 18ESL608, Placement Test, or Permission of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ESL610
Academic Writing for International Students
This workshop course is designed to assist non-native speakers of English to recognize, analyze, and use academic criticism practices in discipline-specific research articles. Using texts from the student's courses, this reading and writing workshop will focus on the analysis of various genres present in their discipline, thus raising awareness of the generic features used by authors in different contexts. Acquiring this knowledge will enable students to manipulate the language features in their field in order to develop a portfolio of practical approaches to reading and writing. Prereq: 18ESL609, Placement Test, or Permission of Instructor. Prereq: 18ESL609. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18ESL710
Teaching Skills for International TAs
This course is designed to assist International Teaching Assistants (ITAs) to acquire, improve, and practice the skills they need for success in their instructional duties. The course focuses on the American educational system, teaching skills, and classroom language use from

H=University Honors course.
Health Education

18HPE272
Athletic Training Practicum III
Application of lower extremity orthopedic evaluation techniques. Application of Level II clinical proficiencies in athletic training relating to injury recognition and management of the upper extremity, head, and cervical spine injuries to individuals involved in physical activity and sports under the direction of an approved clinical instructor. The student will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE271. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE273
Athletic Training Practicum IV
Application of orthopedic evaluation techniques and management of upper and lower extremities. Application of Level II clinical proficiencies in athletic training relating to injury recognition and management of the lower extremity, pelvis, and lumbar spine injuries to individuals involved in physical activity and sports under the direction of an approved clinical instructor. The student will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE272, 18HPE278. BoK: NA. Credit Level: U. Credit Hrs: 2.00

18HPE276
First Aid and CPR Instructor
Theory and pedagogy of teaching basic first aid and CPR. Red Cross instructor certification upon completion. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE278
Sports Injury Evaluation I
The study of injury pathology and sports injury assessment, recognition, and management routines for the upper extremities, head, and cervical spine. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE279
Sports Injury Evaluation II
The study of injury pathology and sports injury assessment, recognition, and management routines for the lower extremities, lumbar spine, and pelvis. Prereq: 18HPE278. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE309
Fitness and Health
Overview of exercise and fitness and their relationship to health. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE310
Exercise Physiology
Application of basic anatomy and physiology concepts to exercise. BoK: NS. Credit Level: U. Credit Hrs: 3.00

18HPE311
Assessment and Prescription
Basic exercise assessment, prescription writing, and program implementation for apparently healthy individuals. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE312
Exercise Leadership Practicum
Field work with experienced exercise professionals to develop skills and experience in leading exercise. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18HPE313
Methods & Applications of Strength & Conditioning Programs
A theoretical and practical approach to various methods applied in the development and implementation of activity-specific strength and conditioning programs for physically active individuals and competitive athletes. Prereq: 18HPE378. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE321
Chronic and Communicable Disease
To provide an overview of the basic principles of communicable and noncommunicable diseases, with a strong focus on epidemiological indices. Emphasis will be on disease prevention and the role of health practitioners. BoK: (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences. Credit Level: U. Credit Hrs: 3.00

College of Education, Criminal Justice, and Human Services

18HPE321
Chronic and Communicable Disease
education. Prereq: 18HPE101, 18HPE133, 18HPE136. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE330
Child and Adolescent Health
Organization and planning of community programs for health protection and health maintenance of children and adolescents. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE333
Health Promotion Program Planning and Development
Provides requisite skills to design, promote, present, and implement health promotion programs consistent with specified program goals and objectives. Develops the skills in Responsibility Area III of Certified Health Education Specialists. Prereq: 18HPE354. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE334
Implementing and Promoting Health Programs
Provides requisite skills to design, promote, present, and implement health promotion programs consistent with specified program goals and objectives. Develops the skills in Responsibility Area III of Certified Health Education Specialists. Prereq: 18HPE333. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE335
Health Care Delivery
Organization, financing, and problems related to the health care system and the health needs of special groups. Prereq: 18HPE101. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE350
Service Learning in Community Health
Experience in delivering health education services through a community agency. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18HPE371
Athletic Training Practicum V
Application of general medical, thoracic spine, abdominal, and facial evaluation techniques. Application of Level II clinical proficiencies in athletic training relating to orthopedic evaluation techniques and management of upper and lower extremities for individuals involved in physical activity and sports under the direction of an approved clinical instructor. Students will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE273, 18HPE279. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE372
Athletic Training Practicum VI
Application of therapeutic modality techniques. Application of Level III clinical proficiencies in athletic training relating to the recognition, evaluation, and management of general medical illnesses and conditions, thoracic spine, abdomen, and facial injuries for those involved in physical activity and sports under the direction of an approved clinical instructor. Students will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE371, 18HPE377. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE373
Athletic Training Practicum VII
Application of therapeutic rehabilitation techniques. Application of Level III clinical proficiencies in athletic training relating to implementation of therapeutic modalities for individuals involved in physical activity and sports under the direction of an approved clinical instructor. Students will complete practical experience in athletic training at an approved clinical site. Prereq: 18HPE372, 18HPE378. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE375
First Aid and CPR Instructor
Theory and pedagogy of teaching basic first aid and CPR. Red Cross instructor certification upon completion. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00
Health Education

18HPE375
First Aid and CPR Instructor
Credit Level: U. Credit Hrs: 3.00

18HPE377
Advanced Topics in Sports Medicine
Introduction to a core set of material as it pertains to: common medical illnesses, non-extremity injuries, and pharmacology. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE378
Therapeutic Modalities for Sports Injuries
Introduction to the rationale and application of therapeutic modalities used in the profession of athletic training for physical activity and sports-related injuries. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE379
Rehabilitation of Sports Injuries
Introduction to the theory and methodology of advance rehabilitation techniques for physical activity and sports injury rehabilitation. Prereq: 18HPE378. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE419
Internship: Health Promotion
Internship in a health program under supervision of a professional health educator. BoK: NA. Credit Level: U. Credit Hrs: 3.00-15.00

18HPE471
Athletic Training Practicum VIII
Evaluation of clinical skills and knowledge to prepare for the BOC Test. Application of Level III/IV proficiencies in athletic training relating to implementation of rehabilitation and strength and conditioning programs for injuries to individuals involved in physical activity and sports under the direct supervision of an approved clinical instructor. The student will complete practical experience at an approved clinical site. Prereq: 18HPE373, 18HPE379. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18HPE476
Athletic Training Seminar
A seminar concentrating on athletic training skill development for professional practice and examining current research and contemporary issues in athletic training. Application of Level III clinical proficiencies in athletic training relating to implementation of therapeutic modalities for individuals involved in physical activity and sports under the direction of an approved clinical instructor. Students will complete practical experience in athletic training at an approved clinical site. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 2.00

18HPE501
Administration of Sports Medicine Programs
Administrative components, policies, procedures, and organizational patterns in various athletic training settings. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18HPE507
Evaluation of Health and Fitness Programs
Provides skills to plan and conduct evaluations of health promotion programs. Includes information on instrument development, data collection, basic data analysis, and report writing. Develops the skills in Responsibility Area IV of Certified Health Education Specialists. Prereq: 18HPE334. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

18HPE548
Health and Human Behavior
Explores why people adopt health behaviors and how these behaviors can be altered. A major emphasis is on health behavior theory. Prereq: 18HPE101. BoK: SS. Credit Level: U. G. Credit Hrs: 3.00

College of Education, Criminal Justice, and Human Services

18HPE549
Human Sexuality
Explores physical, mental, and social aspects of sexuality with major emphasis on sexuality education and the role of health education in the sexuality education process. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18HPE550
Health Issues
Controversial issues in health promotion will be reviewed and openly discussed. This class is a student-led class. You will have the opportunity to actively participate and mold the class discussion each and every session. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE551
Drugs and Society
Examines drug use in American society and specific educational and community approaches to deal with the problem. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE552
Environmental Health
Review of primary environmental health problems and their impact on individuals and society, and the role of health educators in environmental health. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE553
Minority Health Issues
Study of health issues related to minority populations with special emphasis on their specific health needs and programs designed to meet those needs. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18HPE554
International Health
This class introduces the student to the primary health conditions, environmental concerns, population issues, health delivery systems, and health cultures in the regions of the world. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE555
Using Technology in Health Promotion
The purpose of the course is to develop effective and efficient use of MS Office Tools and Web-Based resources for a variety of professional settings in the health promotion field. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18HPE572
Independent Study
Individual research on a health education problem for undergraduate students. May be repeated. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18HPE601
Stress Reduction
Examination of individual and organization sources of stress and techniques for the management and reduction of stress. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE611
Kinesiology
Motor skills used in physical activity applied to effective movement. Prereq: 15BIOL202, 18HPE310. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE633
Aging: Program Development
Development of program design skills for senior health and social services. Prereq: 18HPE310, 18HPE548. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18HPE673
Workshop Health Education
Special, unique, experimental, or topical classes that are scheduled on an as-needed basis. Consult department for current topics and prerequisites. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

H=University Honors course.
Health Education

18HPE762

Exercise Evaluation and Exercise Prescription
Fitness testing, writing exercise prescriptions, and implementing exercise programs for low- and high-risk individuals. Prereq: 18HPE761. Credit Level: G. Credit Hrs: 3.00

18HPE764

Issues in Exercise Physiology
An examination of current research trends and issues related to the field of exercise physiology. Credit Level: G. Credit Hrs: 3.00

18HPE781

Social and Behavioral Change in Public Health
Course content will include concepts and methods of social and behavioral sciences relevant to the identification and solution of public health problems. Emphasis will be on theories and models of behavioral sciences that are used in health promotion. Credit Level: G. Credit Hrs: 4.00

18HPE782

Resource Development and Fundraising
Techniques and skills for identifying sources of funding and developing proposals for external resources will be explored. Credit Level: G. Credit Hrs: 3.00

18HPE788

Pre-Research Seminar
A seminar course to examine and critique current health education research with a focus on helping students to identify research topics they may be interested in studying for their theses. Credit Level: G. Credit Hrs: 1.00

18HPE789

Research Methods for the Health Sciences
Survey of research methods and designs used in health/physical fitness/nutrition research, with a strong emphasis on thesis/dissertation proposal development. Credit Level: G. Credit Hrs: 3.00

18HPE791

Statistics for the Health Sciences
Descriptive statistics used in biomedical and health education investigations. Credit Level: G. Credit Hrs: 3.00

18HPE802

Internship, Health Promotion, and Education
Practical development and implementation of health programs in a community setting. Credit Level: G. Credit Hrs: 3.00-12.00

18HPE861

Health Education in Academia
To assist doctoral-level health education students learn about the expectations of academic faculty-level positions and provide strategies for obtaining faculty positions and succeeding in academia. Credit Level: G. Credit Hrs: 2.00

18HPE862

Philosophy and Ethics of Health Education
An exploration of philosophical and ethical issues surrounding health, health education, and health care in the United States. Case studies will be presented involving the AAHE/SOPHE Code of Ethics. Credit Level: G. Credit Hrs: 3.00

18HPE863

Health Communication
This course provides students with an in-depth understanding of how communication and health decisions/behaviors affect each other. Health communication theory, conceptual frameworks, strategies, and practical issues related to health promotion and education professional practices are addressed. Credit Level: G. Credit Hrs: 3.00

18HPE865

Health Counseling
An introduction to the counseling skills and theories used when working with clients in health education and health care settings. Credit Level: G. Credit Hrs: 3.00

18HPE871

Individual Study in Health
Individual research in health. For advanced students. May be repeated. Credit Level: G. Credit Hrs: 1.00-3.00

H=University Honors course.
Advanced Doctoral Research Seminar I
This course is designed to help advanced doctoral students understand the dissertation process and how to explore potential research topics for their dissertations. Prereq: 18HPE991. Credit Level: G. Credit Hrs: 1.00

Reading and Analyzing Health Education Research
This course will enable students to critique health research in promotion and education by identifying strengths and weaknesses of research design, understanding statistical methods, proper interpretation of statistical results, and recognizing the practical significance of research. Credit Level: G. Credit Hrs: 3.00

Measurement in Health Education
Different measurement instruments in health education will be examined and critiqued. A major focus will be given to the skills necessary to develop new measurement instruments. A context of program evaluation will be utilized. Credit Level: G. Credit Hrs: 3.00

Writing for Publication II
This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 18INTR301. BoK: NA. Credit Level: U. Credit Hrs: 3.00

History & Controversy: The Social Uses of the Past
Application of perspectives on the social uses of history to current texts, events, and controversies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 18INTR302. BoK: NA. Credit Level: U. Credit Hrs: 3.00

SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 18INTR303. BoK: NA. Credit Level: U. Credit Hrs: 3.00

SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication, and teamwork, and provides students with insight into the workings of a market economy. The supervised work experience must be approved by the SIFE faculty coordinator and must include a minimum of 90 supervised hours of work. The supervisor is required to submit an evaluation of the student's performance. This experience is limited to students enrolled in the AGS Students In Free Enterprise (SIFE) program. Prereq: 18INTR304. BoK: NA. Credit Level: U. Credit Hrs: 3.00
Interdisciplinary

18INTR402
SIFE Internship (Students in Free Enterprise)
supervised hours of work. The supervisor is required to submit an
evaluation of the student's performance. This experience is limited to
students enrolled in the AGS Students In Free Enterprise (SIFE)
program. Prereq: 18INTR401. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR403
SIFE Internship (Students in Free Enterprise)
This experiential internship emphasizes leadership, communication,
and teamwork, and provides students with insight into the workings of a
market economy. The supervised work experience must be approved
by the SIFE faculty coordinator and must include a minimum of 90
supervised hours of work. The supervisor is required to submit an
evaluation of the student's performance. This experience is limited to
students enrolled in the AGS Students In Free Enterprise (SIFE)
program. Prereq: 18INTR402. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR561
Interdisciplinary Capstone Seminar I
An interdisciplinary course built around a timely theme. Student is
asked to write several short papers on topics related to the course
theme and/or to his/her completion of the baccalaureate degree. The
theme is explored through reading and group discussions. This course
must be followed by 18INTR562. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR562
Interdisciplinary Capstone Seminar II
A continuation of 18INTR561. The primary objective is to complete and
present a senior paper and/or project related to both the theme covered
in 18INTR561 and to the student's major area of study. Prereq:
18INTR561. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18INTR601
Student Support Services I: Early Childhood Education
This course will familiarize Interns with concepts and practices
associated with support services related to learning, social, and health
needs of all students. Information about and experience with
intervention-based problem solving, in the context of Internship teaching
and with their work with other professionals, are provided. BoK: NA.
Credit Level: U, G. Credit Hrs: 3.00

18INTR602
Student Support Services II: Early Childhood Education
This course will familiarize Interns with concepts and practices
associated with support services related to learning, social, and health
needs of all students. Information about and experience with
intervention-based problem solving, in the context of Internship teaching
and with their work with other professionals, are provided. BoK: NA.
Credit Level: U, G. Credit Hrs: 3.00

18INTR604
Student Support Services I: Elementary
This course will familiarize Interns with concepts and practices
associated with support services related to learning, social, and health
needs of all students. Information about and experience with
intervention-based problem solving, in the context of Internship teaching
and with their work with other professionals, are provided. BoK: NA.
Credit Level: U, G. Credit Hrs: 3.00

18INTR605
Student Support Services II: Elementary
This course will familiarize Interns with concepts and practices
associated with support services related to learning, social, and health
needs of all students. Information about and experience with
intervention-based problem solving, in the context of Internship teaching
and with their work with other professionals, are provided. BoK: NA.
Credit Level: U, G. Credit Hrs: 2.00

College of Education, Criminal Justice, and Human Services

Interdisciplinary

18INTR607
Student Support Services I: Secondary
This course will familiarize Interns with concepts and practices
associated with support services related to learning, social, and health
needs of all students. Provides information about and experience with
intervention-based problem solving, in the context of Internship teaching
and collaboration with other professionals. BoK: NA. Credit Level: U, G.
Credit Hrs: 2.00

18INTR608
Student Support Services II: Secondary
This course will familiarize Interns with concepts and practices
associated with support services related to learning, social, and health
needs of all students. Information about and experience with
intervention-based problem solving, in the context of Internship teaching
and with their work with other professionals, are provided. BoK: NA.
Credit Level: U, G. Credit Hrs: 2.00

18INTR611
Human Learning Seminar: Early Childhood Education
A coordinated seminar to provide a conceptual framework for
understanding individual learners both inside and outside the
classroom. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR613
Assessment and Evaluation Seminar: Early Childhood Education
A coordinated seminar designed to prepare Teacher Education
students to understand and develop skills in the assessment and
evaluation of teaching processes and learning outcomes. This
coordinated seminar is taught during the professional practice school
teaching Internship. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR615
Language and Communication Seminar
A coordinated seminar focusing on the study of language learning,
including factors influencing development and use. Interpersonal
communication, literacy learning, and classroom interaction are
emphasized. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18INTR621
Human Learning Seminar
See 18INTR611. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR622
Individual Diversity Seminar
Seminar on diversity. BoK: SE. Credit Level: U, G. Credit Hrs: 2.00

18INTR623
Assessment and Evaluation Seminar: Elementary
See 18INTR613. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR625
Language and Communication Seminar
See 18INTR615. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18INTR626
Social Inequalities and Schooling: Elementary Education
Course studies social inequalities in the policies and practices of
education using historical and contemporary perspectives. BoK: SE.
Credit Level: U, G. Credit Hrs: 2.00

18INTR631
Human Learning Seminar: Secondary
A coordinated seminar that has five basic themes related to how
learning occurs. Examines relationships between learning theory and
instructional practices. BoK: SS. Credit Level: U, G. Credit Hrs: 2.00

18INTR633
Assessment and Evaluation Seminar
This course addresses the measurement and evaluation aspects of
teaching. It emphasizes multiple ways of assessing learning and a
variety of information sources for decision making and congruence of
assessment goals and methods. Coreq: 18SEC520. BoK: SS. Credit

H=University Honors course.
Interdisciplinary

18INTR633  
Assessment and Evaluation Seminar  
Level: U. G. Credit Hrs: 2.00

18INTR634  
Individual Development: Secondary  
This course concentrates on the developmental aspects of the adolescent and on important social influences and encourages students to explore and identify their own values and attitudes toward adolescence. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18INTR636  
Social Inequalities and Schooling: Secondary  
Examines the relationship between social class, racial/ethnic background, and performance in the educational system. It supports and builds on PPS internship instructional tasks and responsibilities. BoK: SE. Credit Level: U. G. Credit Hrs: 2.00

Legal Assisting Technology

18LGTN180  
Introduction to Paralegal Profession  
Overview of the training and purpose of paralegals. Roles of lawyer, law clerk, legal secretary, and paralegal in law firms, commercial enterprises, institutions, and agencies. Students will gain practical supervised experience as a paralegal in a law firm, including the use of computers related to paralegal functions in the various state and federal administrative agencies. Preparation of documents, preparation of clients and witnesses, as well as oral advocacy before these agencies. Actual simulation with administrative hearing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN221  
Domestic Relations I  
Introduces students to basic principles of domestic relations matters including the history of marriage, rights and obligations arising from a marital relationship, premarital agreements, annulment, marriage, divorce, and dissolution. Students will analyze statutes and apply to factual situations. This will include the deter- mination of child support and spousal support awards, valuation of property, property division and settlement. Students will prepare forms and documents associated with domestic law issues and examine the domestic relations court. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18LGTN252  
Domestic Relations II  
Related domestic relations matters including juvenile problems, custody of minor children, adoption procedures, and guardianship. Focuses on the protection of minor children in legal proceedings. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN256  
Litigation I  
Federal and Ohio rules of civil procedure. Examination of court structure, venue, jurisdiction, and service of process. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN257  
Litigation II  
Draft pleadings and motions, responses, and memoranda in support or opposition, discovery documents, orders, decrees, and other documents relevant to a civil proceeding. Practical application of the skills and procedures learned in Litigation I. Prereq: 18LGTN256. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN258  
Litigation III  
Practical applications of the skills and procedures learned in Litigation I, II. Focus on trials. Prereq: 18LGTN257. BoK: NA. Credit Level: U. Credit Hrs: 3.00

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Legal Assisting Technology

18LGTN260  
Basic Legal Principles  
Processes of legal reasoning through studying four substantive areas of law affecting business: criminal law, contracts, real property, torts. Uses the case analysis approach to learning the law. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN261  
Legal Research I  
Provides the student with an understanding of the law library as well as the use, organization, and interrelationships of the various legal research tools. Skill in researching various legal problems is provided. Prereq: 18LGTN260. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN262  
Legal Research II  
Clear, concise legal writing style is developed. Students apply basic research skills learned in Legal Research I. Drafting of legal memorandums and legal briefs is emphasized. Students will learn to draft letters, opinions, and other legal documents. Prereq: 18LGTN261. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN270  
Tax Law for Paralegals  
Theory and practice of local, state, and federal income taxation; does not include corporate income tax. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN271  
Bankruptcy and Debt Collection  
The study of consumer bankruptcy and legal procedures for the collection of debt and judgments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN272  
Administrative Litigation  
Prepares the paralegal to advise and represent clients as permitted by the various state and federal administrative agencies. Preparation of documents, preparation of clients and witnesses, as well as oral advocacy before these agencies. Actual simulation with administrative hearing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN275  
Corporate Law and Business Organizations  
Various forms of business entities designed to acquaint the student with their formal structure, processes, and operations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN280  
Real Estate for Paralegals  
In-depth study of the law governing real property, including real estate transactions and conveyances such as deeds, contracts, leases, etc. Emphasizes problems encountered in drafting these conveyances. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18LGTN290  
Paralegal Practicum  
The student will gain practical supervised experience as a paralegal prior to seeking employment in law or law-related offices. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN301  
Computer Applications for Paralegals  
Introduction to computer technology and its application within the law firm, including the use of computers related to paralegal functions in litigation support, legal research, and case management applications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN321  
Interviewing and Investigation for Paralegals  
In-depth study of principles, methods, and investigative techniques utilized to locate, gather, document, and disseminate information. Emphasis on developing interviewing and investigating skills which prepare paralegals to communicate effectively while recognizing ethical
Legal Assisting Technology

18LGTN321
Interviewing and Investigation for Paralegals
problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN401
Advanced Legal Research and Writing
Improve practical legal research/writing skills learned in Legal Research I & II. Develop ability to put into written form results derived from identification/analysis of legal issues. Enhance word processing skills to facilitate production of a legal document, pleading, memorandum of law, or brief. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN402
Trademarks, Patents and Copyrights
This course will focus on statutory and common law rights dealing with intellectual property. This includes trademarks, which exist to identify and to distinguish products and services in the marketplace; copyrights, namely rights in literary, artistic, musical, dramatic, and sound and movie recordings and patents; exclusive rights granted to inventors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN410
Introduction to Law Practice Management
This course will introduce students to the management of law firms and the unique challenges they face because of the roles nonlawyers have in an organization of professionals. It will discuss the structures within the firm and about working with people who fill those structures. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN419
Alternate Dispute Resolution
Provides a description and overview of dispute resolution mechanisms, including litigation, voluntary arbitration, negotiation, and mediation. Introduces student to the basic skills needed to begin to mediate with parties in conflict. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN421
Legal Ethics and Professional Responsibility
This course will introduce students to the types of ethical dilemmas that they will face once in the work force, and to methods for researching the answers to ethical dilemmas. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18LGTN471
Advanced Paralegal Seminar
This is an advanced paralegal course to challenge the student to integrate knowledge of theoretical concepts and practical application of legal research, litigation, property, torts, and business law through case analysis and the completion of writing assignments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Literacy

18LTCY500
Phonics in Context
This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. BoK: NA. Credit Level: U, G. Credit Hrs: 5.00

18LTCY673
Phonetics and L2 Education
This course is an analysis of the sound system of English for diagnosis and instruction of pronunciation problems for ESL students. The main goal of the course is to equip participants with appropriate phonological knowledge to understand better the characteristic interference and transfer difficulties that ESL/EFL students bring to the second language learning context. Perm of Instructor. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18LTCY674
Grammar and L2 Education
Analysis of the linguistic systems that constitute the English language and pedagogical applications of that analysis. BoK: NA. Credit Level: U,
18LTCY757
Literacy Practicum
Credit Hrs: 3.00

18LTCY758
Literacy Practicum II
This practicum builds on the first with further evidence-based techniques and research that address multiple themes: (a) reflective teaching and assessment, (b) teaching and learning with culturally and language diverse students, (c) practice-based tutoring, and (d) professional development of the reading specialist. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18LTCY771
Literacy as a Cultural and Linguistic Tool
Analysis of the social, community, and cultural influences on literacy and literacy learners. Focuses on creating socially and culturally responsive classroom practices. Examines issues of second language learning in the content of the regular literacy program. Credit Level: G. Credit Hrs: 3.00

18LTCY772
Topical Seminar in Reading
In-depth analysis of selected topics in literacy. May be adapted to meet the needs of particular school faculties. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18LTCY773
Linking Reading and Writing in Classroom Instruction
An exploration of reading and writing relationships with an emphasis on practical teaching strategies for classroom use, grades K-12. Credit Level: G. Credit Hrs: 3.00

18LTCY774
Teaching Literature of Ethnic-American Populations K-12
Explores the wealth of literature written by ethnic-American writers (African-American, American Indian, Asian-American, and Hispanic-American) often excluded from anthologies. Pedagogical implications are explored. Credit Level: G. Credit Hrs: 3.00

18LTCY775
L2 Acquisition Theory
Theories of second language acquisition and their implications for development of ESL teaching methods. Credit Level: G. Credit Hrs: 3.00

18LTCY776
PreK-12 TESL Methods I: Principles and Procedures
Methods and techniques of teaching ESL in a variety of contexts. Prereq: 18LTCY775. Credit Level: G. Credit Hrs: 3.00

18LTCY777
PreK-12 TESL Methods II: Materials, Design and Development
Methods, curriculum, and materials development for ESL; techniques for testing and evaluation. Prereq: 18LTCY776. Credit Level: G. Credit Hrs: 3.00

18LTCY778
PreK-12 Teaching English as a Second Language Practicum
Supervised practice in teaching ESL. Prereq: 18LTCY777. Credit Level: G. Credit Hrs: 1.00-15.00

18LTCY779
Sociolinguistics and L2 Education
An overview of sociolinguistic factors affecting second language variation and acquisition: societal and individual influences on language choice, use, maintenance, and change. It examines some major topics such as variation of language, language attitudes and motivations, language policies and implications for TESL, and some of the major research methods in sociolinguistics. This course takes an ecological perspective to language teaching and learning. It encourages students to explore activities and communities of practice as units of analyses in their research. Credit Level: G. Credit Hrs: 3.00
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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credit Level</th>
<th>Credit Hours</th>
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<td>Foundations of Postsecondary Literacy Instruction</td>
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<td>18LTCY802P</td>
<td>Methods of Postsecondary Literacy Instruction: Focus on Reading</td>
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<td>18LTCY803P</td>
<td>Practicum in Postsecondary Literacy Instruction</td>
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<td>PreK-12 Teaching English as a Second Language Assessment, Evaluation and Testing</td>
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<td>Reading and Writing Processes at the Postsecondary Level</td>
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<td>18LTCY806P</td>
<td>Methods of Postsecondary Literacy Instruction: Focus on Writing</td>
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<td>Projects in Postsecondary Literacy Instruction</td>
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<td>Postsecondary ESL Literacy</td>
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<td>18LTCY850</td>
<td>Miscue Analysis</td>
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<td>18LTCY865</td>
<td>Content-based L2 Education: Theory, Research, and Practice</td>
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<td>18LTCY867</td>
<td>Bilingual Education: Theory, Research, and Practice</td>
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<td>18LTCY868</td>
<td>Teaching and Assessing College English as a Second Language: Oral</td>
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<td>18LTCY869</td>
<td>Teaching and Assessing College English as a Second Language: Written</td>
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<tr>
<td>18LTCY870</td>
<td>Research in Computer Assisted Language Learning</td>
<td>G</td>
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<tr>
<td>18LTCY871</td>
<td>Individual Study in Literacy</td>
<td>G</td>
<td>1.00-6.00</td>
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<tr>
<td>18LTCY872</td>
<td>Readings in Literacy</td>
<td>G</td>
<td>1.00-9.00</td>
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<tr>
<td>18LTCY873</td>
<td>Individual Master's Thesis: Literacy</td>
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<tr>
<td>18LTCY874</td>
<td>Individual Master's Project: Literacy</td>
<td>G</td>
<td>1.00-6.00</td>
</tr>
</tbody>
</table>

H=University Honors course.  
Literacy

18LTCY874
Individual Master's Project: Literacy
Writings on an approved topic which culminates in a product that can be used by professionals in the field of literacy. In lieu of comprehensive examination. Credit Level: G. Credit Hrs: 1.00-6.00

18LTCY875
Professional Portfolio: Literacy
A portfolio of the candidate's work that provides evidence she/he has met the International Reading Association's Standards for Reading Professionals. In lieu of comprehensive examination. Credit Level: G. Credit Hrs: 1.00-3.00

18LTCY878
Seminar: Survey of Research in Reading
Critical appraisal and discussion of classical and current studies in the research and teaching of reading. Credit Level: G. Credit Hrs: 3.00

18LTCY879
Seminar: Current Issues in Literacy
Investigation and analysis of current approaches, materials, issues, and problems in the process of acquiring literate behavior. Credit Level: G. Credit Hrs: 3.00

18LTCY880
Principles of Organizing a Literacy Curriculum
Planning, implementing, and supervising literacy programs. Credit Level: G. Credit Hrs: 3.00

18LTCY881
Seminar: Research on Writing Instruction
Explores two major themes: (1) historical and current research on writing development and the teaching of writing, and (2) current approaches to writing instruction in K-12 classrooms. Credit Level: G. Credit Hrs: 3.00

18LTCY882
Language and Emergent Literacy
Examines research on young children's reading and writing development from several disciplinary perspectives (e.g., psychology, linguistics, education); explicates significant implications for pre-K-2 literacy instruction. Credit Level: G. Credit Hrs: 3.00

18LTCY901
Frameworks for Literacy Research
Analysis of current theoretical frameworks for literacy research; exploration of links between theoretical frameworks for research and literacy practices in communities and schools. Credit Level: G. Credit Hrs: 3.00

18LTCY902
Guided Literacy Research I
Application of frameworks for literacy research to literacy research in social settings; analysis of methods for gathering and analyzing language and literacy data; explorations of genres of literacy research writing. Credit Level: G. Credit Hrs: 3.00

18LTCY903
Guided Literacy Research II
Further application of frameworks for literacy research to literacy research in social settings; continued analysis of methods for gathering and analyzing language and literacy data; exploration of genres of literacy research writing. Credit Level: G. Credit Hrs: 3.00

18LTCY910
Foundations of Research in SLA
This course, the first of a three-course doctoral sequence, examines the historical trends, theoretical frames, and research traditions underlying research in SLA. We also explore qualitative and quantitative research paradigms, review research studies in SLA, and initiate a pre-dissertation research experience. Credit Level: G. Credit Hrs: 4.00

18LTCY911
Advanced Study of Research in SLA
This course, the second in a three-course doctoral sequence, examines the political, social, and philosophical issues which affect our field, particularly in relation to bilingualism, language planning, and language policy. Credit Level: G. Credit Hrs: 4.00

18LTCY912
Focused Research in SLA
This course, the third of a three-course doctoral sequence, examines the issue of power, language, culture, and identity. Participants will explore these issues within the framework of their own research. Credit Level: G. Credit Hrs: 4.00

18LTCY921
Mentored Research in Literacy I
Apprenticeship experience in the design and conduct of literacy research. Credit Level: G. Credit Hrs: 3.00

18LTCY922
Mentored Research in Literacy II
Apprenticeship experience emphasizing data collection and analysis in the conduct of literacy research. Prereq: 18LTCY921. Credit Level: G. Credit Hrs: 3.00

18LTCY923
Mentored Research in Literacy III
Apprenticeship experience emphasizing data analysis and reporting the results of literacy research. Credit Level: G. Credit Hrs: 3.00

18LTCY930
Advanced Seminar in Literacy I
Selective topics seminar at the doctoral level. Topics may vary by instructor and quarter. In general, topics related to literacy and TESL. Credit Level: G. Credit Hrs: 3.00

18LTCY931
Advanced Seminar in Literacy II
Selective topics seminar at the doctoral level. Topics may vary by instructor and quarter. In general, topics related to literacy and TESL. Credit Level: G. Credit Hrs: 3.00

18LTCY932
Advanced Seminar in Literacy III
Selective topics seminar at the doctoral level. Topics may vary by instructor and quarter. In general, topics related to literacy and TESL. Credit Level: G. Credit Hrs: 3.00

18LTCY953
Professional Seminar in Teacher Education III: Language and Social Practices
Seminar examining how language practices shape knowledge and identity in educational settings. Credit Level: G. Credit Hrs: 3.00

18LTCY973
Individual Dissertation Guidance: Literacy
Doctoral candidate confers with major adviser and dissertation committee. Required in doctoral program. Credit Level: G. Credit Hrs: 1.00-15.00

Middle Childhood Education

18MDL201
Introductory Field Experience
Interactions in schools and/or with young people appropriate to the grade level license; reflective seminar to discuss these experiences. BoK: NA. Credit Level: U. Credit Hrs: 1.00

18MDL213
Instructional Technology: Middle School
Students will develop a set of skills and a knowledge base around the use of instructional technologies in the classroom, enabling them to "activate the learning environment through the use of technology" and to begin the development of their digital portfolio. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Middle Childhood Education

18MDL325
Geometry and Measurement for Middle School Teachers
This course focuses on the teaching of geometry and measurement. Coreq: 15MATH305. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18MDL500
Phonics in Middle School
This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. BoK: NA. Credit Level: U, G. Credit Hrs: 5.00

18MDL501
Opening School Experience - Teaching Associate in Middle School
Participation in a middle school professional practice school classroom from the opening day of the public schools until the first day of UC’s autumn quarter. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18MDL502
Field Experience I Middle School
Practicum experience in a middle school classroom. Prereq: 18MDL521, 18MDL525. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18MDL503
Field Experience: TA II
This is the second of three field experiences during the Teaching Associate year. Done in the same site as the Opening School Experience and Field Experience I. Teaching Associates are in the schools with their mentor teachers a minimum one of half-day (or three hours) per week. Perm of Department. BoK: SE, HP. Credit Level: U, G. Credit Hrs: 3.00

18MDL511
Middle School Organization and Practices
Addresses the unique needs of middle level students in the context of their physical, social, emotional, and intellectual needs. Required for students seeking to be admitted to the Middle Childhood Education program. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18MDL515
Classroom Management: Middle Childhood
Designed to develop the ability to create and maintain a positive learning environment in the middle childhood classroom. Strategies for effective teaching, which will include issues of diversity, will be emphasized. Attention will be given to analyzing, resolving, and preventing managerial problems. Reflective teaching strategies will be presented. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18MDL521
Foundations of Literacy: Middle School
Theoretical underpinnings of literacy instruction in middle school classrooms. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

18MDL522
Literacy II: Assessment and Evaluation
Discussion of a variety of assessment strategies and how these should be integrated with instruction in a middle school. Prereq: 18MDL521. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18MDL523
Literacy III: Reading in the Content Areas
This course provides participants with an overview of reading in the content areas, including particular curricular approaches and literacy strategies to use in middle school content classrooms. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18MDL524
Principles and Practices: Language Arts
Methods, materials, and strategies for language arts instruction. Prereq: 18MDL521, 18MDL525. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18MDL525
Improving Reading Using Literature
Course focuses on children's literature and its role in classrooms. Current theories and methods about integrating literature into all curriculum areas will be discussed and demonstrated. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18MDL531
Principles and Practices Science
Prepares preservice teachers to teach science, integrating methods with concepts in areas of physical, biological, and earth sciences. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18MDL541
Principles and Practices: Social Studies
Provides the basic perspectives and skills necessary to teach social studies in the middle grades. Required for Middle Childhood Education students whose area of concentration is social studies. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18MDL551
Middle School Mathematics I
Addresses the unique needs of middle school students as they are acquiring competence in mathematics. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18MDL561
Middle School Capstone Seminar
This course holistically measures Middle Childhood Education candidates’ professional behaviors and competencies through tasks designed for reflection, synthesis, and application of pedagogical information acquired during their studies in middle school education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

18MDL601
Portfolio Development I: Middle Childhood
This course is designed to have each Middle Childhood preservice teacher prepare a professional portfolio during the Internship year. The portfolio needs to be in two forms: electronic (on a CD) and paper. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

18MDL602
Portfolio Development II: Middle Childhood
This course is designed to have each Middle Childhood preservice teacher prepare a professional portfolio during the Internship year. The portfolio needs to be in two forms: electronic (on a CD) and paper. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

18MDL644
Internship I: Middle Childhood
All Interns accepted by schools will be placed to complete a year-long Internship experience in grades 4-9. This experience will begin on the first day the public schools open after summer vacation (generally in the third week of August). Prereq: 18MDL503. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-20.00

18MDL645
Internship II: Middle Childhood
All Interns accepted by schools will be placed to complete a year-long Internship experience in grades 4-9. This experience will begin on the first day the public schools open after summer vacation (generally in the third week of August). Prereq: 18MDL644. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00-20.00

18MDL731
Science: Advanced Study
This course emphasizes the designing, planning, and implementing of science curriculum materials as well as refining process and product teaching skills. Credit Level: G. Credit Hrs: 3.00

18MDL741
Advanced Study: Social Studies
Addresses effective teaching of social studies for diverse learners in the middle grades. Required for Middle Childhood Education teaching programs.

H＝University Honors course.
Middle Childhood Education

18MDL741 Advanced Study: Social Studies
Interns whose area of concentration is social studies. Credit Level: G. Credit Hrs: 3.00

Paralegal Studies

18PARA180 Introduction to Paralegal Profession
Overview of the training and purpose of paralegals. Roles of lawyer, law clerk, legal secretary, and paralegal in law firms, commercial enterprises, institutions, and agencies. Examines legal and paralegal ethics and unauthorized practice of law problems related to the lawyering function; interviewing and oral advocacy. BoK: SE. Credit Level: U. Credit Hrs: 3.00

18PARA241 Estates and Probate
Study of the status of descent and distribution as well as administration of a decedent estate. Probate court administration of estates and drafting of wills. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA251 Domestic Relations I
Premarital and postmarital agreements, marriage contracts, divorce, and dissolution of marriage, including child support, alimony, property division, and settlement. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA252 Domestic Relations II
Related domestic relations matters including juvenile problems, custody of minor children, adoption procedures, and guardianship. Focuses on the protection of minor children in legal proceedings. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA256 Litigation I
Federal and Ohio rules of civil procedure. Examination of court structure, venue, jurisdiction, and service of process. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA257 Litigation II
Draft pleadings and motions, responses, and memoranda in support or opposition, discovery documents, orders, decrees, and other documents relevant to a civil proceeding. Practical application of the skills and procedures learned in Litigation I. Prereq: 18LGTN256. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA258 Litigation III
Practical applications of the skills and procedures learned in Litigation I, II. Focus on trials. Prereq: 18LGTN257. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA260 Basic Legal Principles
Processes of legal reasoning through studying four substantive areas of law affecting business: criminal law, contracts, real property, torts. Uses the case analysis approach to learning the law. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA261 Legal Research I
Provides the student with an understanding of the law library as well as the use, organization, and interrelationships of the various legal research tools. Skill in researching various legal problems is provided. Prereq: 18LGTN260. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA262 Legal Research II
Clear, concise legal writing style is developed. Students apply basic research skills learned in Legal Research I. Drafting of legal memorandums and legal briefs is emphasized. Students will learn to

College of Education, Criminal Justice, and Human Services

Paralegal Studies

18PARA262 Legal Research II
draft letters, opinions, and other legal documents. Prereq: 18LGTN261. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA270 Tax Law for Paralegals
Theory and practice of local, state, and federal income taxation; does not include corporate income tax. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA271 Bankruptcy and Debt Collection
The study of consumer bankruptcy and legal procedures for the collection of debt and judgments. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA272 Administrative Litigation
Prepares the paralegal to advise and represent clients as permitted by the various state and federal administrative agencies. Preparation of documents, preparation of clients and witnesses, as well as oral advocacy before these agencies. Actual simulation with administrative hearing. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA275 Corporate Law and Business Organizations
Various forms of business entities designed to acquaint the student with their formal structure, processes, and operations. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA280 Real Estate for Paralegals I
In-depth study of interests in real property, studying various types of real estate transactions and conveyances such as deeds, contracts, leases, etc. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA290 Paralegal Practicum
The student will gain practical supervised experience as a paralegal prior to seeking employment in law or law-related offices. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA301 Computer Applications for Paralegals
Introduction to computer technology and its application within the law firm, including the use of computers related to paralegal functions in litigation support, legal research, and case management applications. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA321 Interviewing and Investigation for Paralegals
In-depth study of principles, methods, and investigative techniques utilized to locate, gather, document, and disseminate information. Emphasis on developing interviewing and investigating skills which prepare paralegals to communicate effectively while recognizing ethical problems. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA380 Tax Law for Paralegals
Theory and practice of local, state, and Federal income taxation; does not include corporate tax work. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA401 Advanced Legal Research and Writing
Improve practical legal research/writing skills learned in Legal Research I & II. Develop ability to put into written form results derived from identification/analysis of legal issues. Enhance word processing skills to facilitate production of a legal document, pleading, memorandum of law, or brief. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Paralegal Studies

18PARA402 Trademarks, Patents and Copyrights
This course will focus on statutory and common law rights dealing with intellectual property. This includes trademarks, which exist to identify and to distinguish products and services in the marketplace; copyrights, namely rights in literary, artistic, musical, dramatic, and sound and movie recordings and patents; exclusive rights granted to inventors. BoK: SS. Credit Level: U. Credit Hrs: 1.00

18PARA410 Introduction to Law Practice Management
This course will introduce students to the management of law firms and the unique challenges they face because of the roles nonlawyers have in an organization of professionals. It will discuss the structures within the firm and about working with people who fill those structures. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PARA419 Alternate Dispute Resolution
Provides a description and overview of dispute resolution mechanisms, including litigation, voluntary arbitration, negotiation, and mediation. Introduces student to the basic skills needed to begin to mediate with parties in conflict. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA421 Legal Ethics and Professional Responsibility
This course will introduce students to the types of ethical dilemmas that they will face once in the work force, and to methods for researching the answers to ethical dilemmas. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18PARA471 Advanced Paralegal Seminar
This is an advanced paralegal course to challenge the student to integrate knowledge of theoretical concepts and practical application of legal research, litigation, property, torts, and business law through case analysis and the completion of writing assignments. BoK: NA. Credit Level: U. Credit Hrs: 3.00

Professional Seminar

18PRFS215 FYE College Survival Skills
This is a First Year Experience course designed to help the freshman student navigate the University system. Topics include: financial aid, registration, study skills, time management, computer skills, and career selection. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18PRFS216 First Year Service Learning
This is a First Year Experience course for freshmen in the College of Education, Criminal Justice, and Human Services. The course will incorporate service learning to enhance the knowledge of the student's specific major and provide real life experience. The course is intended to encourage students to access resources across the university and within the college as well as provide a real life experience in their chosen field. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18PRFS217 FYE Steps to Success
This is a First Year Experience course for freshmen who are on probation after their first quarter in college. It is designed to help the student identify why he/she is on probation and what changes need to be made. Emphasis is on developing reading and writing skills, time management, and goal setting. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18PRFS191 Advanced Physical Conditioning
This course teaches the benefits of healthy living by exploring/using the fitness center. BoK: NA. Credit Level: U. Credit Hrs: 1.00

College of Education, Criminal Justice, and Human Services

18PRFS202 Pharmacology
This course introduces basic pharmacology, the history of drug use and discovery, and modern pharmacology. Drug receptors, drug actions, absorption, distribution, metabolism, and elimination are discussed. Also includes FDA approval, major body systems, prescription and OTC drugs, herbal preparations, and ethical issues about the non-medical use of drugs. An internet course. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS210 Early Childhood Learning Community Orientation
This course will allow students to review the requirements for being successful. Students will develop goals to help them be successful and learn problem solving skills. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS211 CDA Credential Course 1 - Theory I
Study of child development theories and how they are applied in the early childhood setting. Topics and issues regarding culture, ability, gender, and socio-economic diversity are studied. Theoretical and practical aspects of planning appropriate programs. CDA resource file. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS212 CDA Credential Course II - Theory II
This course deals with behavior management of children in group settings. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS213 CDA Credential Course III - Curriculum I
Early childhood curricula is studied in light of the information on child development studies in previous classes. Literacy (reading and writing development), developmentally appropriate art and music curricula, and the purpose and planning behind dramatic play will be emphasized. Family involvement practices and assessment procedures will be infused throughout the coursework. Prereq: 18PRFS211, 18PRFS212. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS214 CDA Credential Course 4 - Curriculum II
Curriculum in early childhood will continue to be examined, particularly with regard to math and science. Students will write lesson plans for specific areas that include objectives for learning concepts and early academic skills. They will learn how to plan, implement, monitor, assess, and modify an integrated curriculum that will foster social development and accelerate positive outcomes for young children. Prereq: 18PRFS213. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS215 CDA Math and Literature
This course implements writing and music into the early childhood curriculum. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PRFS216 CDA Science
This course implements math and science into the early childhood curriculum. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18PRFS217 Child Development Associate Renewal, Topics in Perfecting Practice
Course is targeted at the CDA. Credential holder must renew the national certification. It will cover positive discipline techniques, inclusion of children with special needs, growth as a professional, and new ideas for curriculum development in early childhood. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

18PRFS218 Drugs and Behavior
This course provides an introduction to problems associated with drug abuse and chemical dependency using a historical perspective, associated psychological behavior and processes, physiological...
Professional Seminar

18PRFS218  Drugs and Behavior
processes, the disease concept, and various therapeutic models. Explores the student's own attitudes and feelings toward the use of drugs and their implications in a society that has been experiencing a crisis of "epidemic." BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS221  Assessment And Diagnosis in Addictions
This course covers clinical assessment and diagnostic process in additions. The key elements of making a good assessment, self-assessment, use of assessment tools, interviewing techniques, impediments to the assessment process, and the use of a multidimensional assessment approach are covered. Includes use of the "decision tree" diagnostic thinking process and basic use of the multiaxial system in the DSM-IV, with concentration on addictive and compulsive behavioral categories. Includes an understanding of various diagnostic instruments. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS302  Neurobiology And Neuroendocrinology of Addictions
This course provides an understanding of the basic anatomy and physiology of the neuron and synapse. Students will understand specialized brain formations which sub-serve pain, pleasure, and motor coordination. Neurotransmitters, agonists, and anti-agonists affecting brain receptors will be studied, as related to drug impingement activity. Mood and behavioral factors associated with drug and neurotransmitter interactions and neuroendocrinology of hormones will be studied. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS304  PARKS & RECREATION: PROFESSIONAL INTERN PROJECT
The Professional Intern Project is an approved and directed demonstration project in a qualified recreation or park agency. Students will be introduced to the concept of applied research in the field of leisure. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS305  Developmental Domains of Infants and Toddlers
This course will broaden our knowledge of how young children move through three distinct stages and where they stand developmentally. This understanding will strengthen the ability to provide responsive, reciprocal, and respectful care. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS410  Recreation and Leisure Programming
This course covers the fundamentals of recreation and leisure programming, philosophy, and goals, and translating goals into activities and evaluation. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS411  Recreation Arts Programming
This course focuses on developing lesson plans for age appropriate activities in a recreation setting. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS412  SIRI Pre-K
This course deals with reading and literacy instruction for preschool through kindergarten-aged children. BoK: NA. Credit Level: U. Credit Hrs: 1.00-10.50

18PRFS413  Infant and Toddler Development
This course discusses various aspects of infant and toddler development, including emotional, social, motor, language, and cognitive development. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

18PRFS415  English as a Second Language: Academic Reading and Writing I
Students will develop the ability to read and comprehend texts on various academic topics with an emphasis on vocabulary expansion H=University Honors course. BoK (Breadth of Knowledge) Coding. DC: Diversity & Culture. EC: English composition. FA: Fine Arts. HP: Historical Perspectives. HU: Humanities. LT: Literature. NS: Natural Sciences. QR: Quantitative Reasoning. SE: Social & Ethical Issues. SS: Social Sciences.
**Professional Seminar**

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<th>Title</th>
<th>Credit Level</th>
<th>Credit Hrs.</th>
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<tr>
<td>18PRFS507</td>
<td>OMAP Data Analysis and Probability, and Number Sense and Operations</td>
<td>U, G</td>
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<td>18PRFS508</td>
<td>Ohio Early Learning Content Standards: Science</td>
<td>U, G</td>
<td>1.00-6.00</td>
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<td>18PRFS509</td>
<td>Conflict Resolution</td>
<td>U, G</td>
<td>1.00-6.00</td>
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<td>18PRFS511</td>
<td>Thinking Strategies and Instruction</td>
<td>U, G</td>
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<td>18PRFS512</td>
<td>Effectively Supporting Diverse Backgrounds</td>
<td>U, G</td>
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<td>18PRFS513</td>
<td>Special Topics in Music Education</td>
<td>U, G</td>
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<td>18PRFS514</td>
<td>Ohio Early Learning Content Standards: Mathematics</td>
<td>U, G</td>
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<td>18PRFS515</td>
<td>Global Education</td>
<td>U, G</td>
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<td>18PRFS516</td>
<td>Ohio Early Learning Content Standards Integrating Curriculum</td>
<td>U, G</td>
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<td>18PRFS517</td>
<td>OELCS Individualized Education Plan and Curriculum</td>
<td>U, G</td>
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<td>18PRFS518</td>
<td>Service Learning for Peace Education</td>
<td>U, G</td>
<td>1.00-10.50</td>
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**College of Education, Criminal Justice, and Human Services**

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<td>Service Learning for Peace Education</td>
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<td>18PRFS519</td>
<td>English as a Second Language - Students in the Mainstream</td>
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<td>18PRFS520</td>
<td>Technology Academic Content Standards</td>
<td>U, G</td>
<td>1.00-6.00</td>
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<td>18PRFS521</td>
<td>Leisure &amp; Aging</td>
<td>U, G</td>
<td>1.00-6.00</td>
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<td>18PRFS522</td>
<td>Recreational Sports Programming</td>
<td>U, G</td>
<td>1.00-6.00</td>
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<tr>
<td>18PRFS523</td>
<td>Developing Business and Education Programs</td>
<td>U, G</td>
<td>1.00-6.00</td>
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<tr>
<td>18PRFS524</td>
<td>Constructivism in the Classroom: Instructional Planning</td>
<td>U, G</td>
<td>1.00-6.00</td>
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<tr>
<td>18PRFS525</td>
<td>Standards-Based Instruction</td>
<td>U, G</td>
<td>1.00-6.00</td>
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<tr>
<td>18PRFS526</td>
<td>Special Education Collaboration Techniques</td>
<td>U, G</td>
<td>1.00-3.00</td>
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<tr>
<td>18PRFS527</td>
<td>Methods of Teaching Foreign Language</td>
<td>U, G</td>
<td>1.00-6.00</td>
</tr>
<tr>
<td>18PRFS528</td>
<td>Introduction to Therapeutic Recreation &amp; Inclusion</td>
<td>U, G</td>
<td>1.00-6.00</td>
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</tbody>
</table>

H—University Honors course.
Standards. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

interdisciplinary approaches, grounded in the Ohio Academic Content between language and communication development and literacy and preschool through primary grades. An emphasis is on the relationship and writing skills for diverse learners in the inclusive classroom, middle and secondary grades through adulthood. An emphasis is on literacy related to functional skills and transitions, and literacy and interdisciplinary approaches, grounded in the Ohio Academic Content Standards. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Special Topic Pre-K-12
Special topics in the Pre-K-12 setting. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

Individuals with Learning Disabilities
Identification, assessment, educational approaches, educational service alternatives, interactions in the home and classroom, and current issues and trends with regard to children, youth, and adults with learning disabilities are covered in this course. In addition, student characteristics and instructional implication of various disabilities related to learning styles and rates are addressed. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Effective Planning and Professional Practices in Early Childhood Special Education
This course will allow teachers to examine appropriate intervention planning and instruction models for children on IEPs who are between the ages of 3 and 5 years old. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Digital Literacy
This class will show teachers the importance of using the internet with their students. The use of the internet to find information about various subjects is promoted and discussed in great detail. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Classroom Management
This course will provide specific ideas and strategies that save time, promote classroom order, and increase students’ learning focus. Topics include: materials management through guided discovery; logical consequences; rules, rituals, and routines; and successful classroom beginnings, transition, and closure. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Montessori Philosophy and Methods
Students will gain a clear understanding of Maria Montessori and her work. The course will focus on the key concepts in the Montessori method. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

Special Education Curriculum Design & Instruction
To assist teachers in developing a variety of instructional methodologies to meet the diverse learning needs of students in the classroom. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

The Learning Centered Classroom
Strategies for dealing with diverse classrooms in terms of gender, grade level, academic skills, and ethnicity in order to promote student learning. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

Montessori Overview
Montessori principles will be discussed, with emphasis on the concept of sensitive periods, developmental stages, three modes of learning, the three period lesson, and the nomenclature cards used in early research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Special Education Team Collaboration
Team efforts and collaboration concerning special education in the schools. BoK: SE. Credit Level: U, G. Credit Hrs: 1.00-3.00

Teaching Reading and Writing
This course addresses facilitating the literacy development and reading and writing skills for diverse learners in the inclusive classroom, preschool through primary grades. An emphasis is on the relationship between language and communication development and literacy and interdisciplinary approaches, grounded in the Ohio Academic Content Standards. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

College of Education, Criminal Justice, and Human Services

Principles and current practices in literacy education and leadership.
Professional Seminar

18PRFS550
**Literacy Principles and Practices: Leadership**  
BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS551
**Special Education Literacy**  
This course examines literacy and literacy instruction in the special education field. BoK: DC. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS552
**Elements of Instruction**  
This course is a study of the practical applications of learning theory in the classroom. Participants explore the latest in brain research, as well as "best practice" ideas for managing classroom time. BoK: NA. Credit Level: G. U. Credit Hrs: 1.00-6.00

18PRFS553
**Standards-Based Classrooms**  
Teachers will clarify the meaning of the content area proficiency standards and develop standards-based units to provide evidence that students meet the Ohio-mandated proficiency standards. BoK: NA. Credit Level: G. U. Credit Hrs: 1.00-5.00

18PRFS554
**Connecting Family, Community, and Schools**  
This course will instruct participants on how to develop strategies to increase family and community involvement in their schools. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS555
**New Teacher Induction (Online)**  
The course provides support in classroom management, transitioning to the teaching environment, and methods that lead to an increased rate of retention for highly qualified teachers to develop school-wide structures and strategies based on effective schools research. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS556
**New Teacher Induction (Online) Live Support Sessions**  
This course focuses on issues and topics for new classroom teachers in an interactive online environment. Topics vary with classroom conditions. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS557
**Montessori Methods (Advanced) - Structure and Organization**  
This advanced course explains the secondary Montessori classroom structure and organization, curriculum development, teaching methodology, field studies, and curriculum integration. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS558
**Early Childhood Practicum**  
Practicum experiences for Early Childhood Education students for grades K-3. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS559
**Socratic Seminar - Secondary Montessori**  
Socratic Seminar prepares students to conduct this mode of teaching. The structure and process are practiced throughout the course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS560
**Integrating Computer Applications in Instruction**  
Designed for teachers who will learn how to integrate presentation, publishing, and web design software into classroom content. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS561
**Web Design Basics for Classroom Instruction**  
Designed for teachers who will learn how to use web design software to create instructional web content. BoK: NA. Credit Level: G. U. Credit Hrs: 1.00-6.00

18PRFS562
**Advanced Elements of Instruction**  
This course is for veteran mentors who will develop advanced techniques of inquiry, profiles of practice, and levels of performance. Mentors must have completed 18PRFS552 and Pathwise training. Prereq: 18PRFS552. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS563
**Arts as the Connecting Link in Curriculum Integration**  
The Arts Connections program by the Association for the Advancement of Arts Education. Week-long workshop for training in multiple intelligences, integrated curriculum, assessment design and development, arts and the proficiencies, and experience with professional artists. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-8.00

18PRFS564
**Management of Parks and Recreation Facilities**  
This course is designed to provide students with an orientation into various management practices, structural makeup, design, operations, and functions related to managing recreational facilities. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS565
**Multimedia Strategies for Reading and Social Studies**  
This course uses materials developed with the CET Safe Passage project to develop the knowledge, skills, and dispositions needed to teach reading, writing, and social studies in the middle grades. Participants will learn to use the Safe Passage materials to align instruction with standards, use effective teaching strategies, teach inquiry skills, use a variety of print and electronic media, and develop assessment strategies. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS566
**Teaching Technology**  
This course will instruct teachers how to coach and teach novice or veteran teachers to develop competence in using technology to enhance student learning. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS567
**Nature and Needs of the Gifted**  
Emphasis for the coordinators/practitioners is on understanding the nature and needs of gifted learners. Focus of the class will be on the practical application of the identification and assessment tools and the planning and implementation of appropriate gifted services. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

18PRFS568
**Developing Mathematical Ideas**  
This course explores how students experience mathematics, focusing on the reasoning processes - a shift from the mechanical use of algorithms. Written and videotaped case studies will be analyzed as students perform the four basic operations. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS569
**Internet Searching and Researching**  
This course introduces concepts and methods related to searching the internet, comparing search engines, and using internet content effectively in instruction. An online course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS570
**Autism Spectrum Disorder**  
This course instructs teachers how best to communicate and teach students who are on the Autism Spectrum. The importance of using visual supports to encourage student learning will be emphasized. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS571
**Special Topics in Social Studies**  
Seminars in special topics related to teaching Social Studies in various grades K-12. May be offered online. BoK: NA. Credit Level: U, G. Credit

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H=University Honors course.
College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS581
Special Topics in Social Studies
Hrs: 1.00-6.00

18PRFS572
Online Student Courses
This course will help teachers gain an understanding of the purposes and benefits of online courses for students. Teachers will also have the opportunity to explore policy issues associated with offering online student courses. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS574
Data Driven Decisions for Instruction
Data collection and analysis as the basis of instructional decisions are examined. Includes data definitions, collection, graphing, and trend analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS575
Social Studies: U.S. Studies
This course will instruct teachers how to actively align their curriculum to the U.S. Social Studies standards. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS576
Literature Review for Band Grades 5-12
Students will receive an overview of method books and materials appropriate for beginning band and middle/high school warm-up and techniques, and information regarding selection of appropriate literature for performance in band, grades 5-12. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS577
Designing Online Courses
This course will teach students how to develop courses for use in an online environment. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS578
Standards-Based Education for General Music Education
Students will learn standards-based strategies for effectively engaging students from diverse socio-economic, ethnic, cultural, and ability backgrounds, using an Orff-based approach, to increase student academic performance through concept-based learning. Correlation between fine arts and core content area concepts will be emphasized. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS579
Conflict Resolution
This course helps educators understand how to teach conflict resolution skills and empower students to resolve conflicts. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS580
Bridging Learning Theory in the Classroom
This course discusses ways to combine various theories in classroom teaching. Theories include behaviorism, cognitivism, constructivism, and brain-based learning. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS581
Understanding Student Motivation
This course allows teachers to encourage a sense of belonging and success for every student. Teachers will learn the differences between extrinsic and intrinsic motivation and will learn ways to elicit motivation by addressing the basic needs of all children. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS582
Teacher Behaviors that Promote Assessment for Learning
This course examines the teacher behaviors that promote quality assessment. Those behaviors include fairness, clarity, pride, and student centered planning. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

H=University Honors course.
<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs</th>
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</thead>
<tbody>
<tr>
<td>18PRFS598</td>
<td>Evaluating a Science Fair</td>
<td>This course will provide active teachers with the knowledge, tools, and resources to evaluate science fairs relative to student, teacher, and school administration participation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>18PRFS599</td>
<td>Grant Writing</td>
<td>Students will learn how to successfully develop a grant. The goal of this course is to develop a building-based leadership team for successful grant writing. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00</td>
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<td>18PRFS600</td>
<td>Teacher Evaluation Systems: Comprehensive Appraisal National Boards (NBPTS) advanced candidate seminar. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00</td>
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<tr>
<td>18PRFS603</td>
<td>Information/Library Literacy</td>
<td>Classroom teachers research literacy, library, and media standards and identify resources to integrate information in classroom instruction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>18PRFS605</td>
<td>Math Grades 6-8</td>
<td>Effective planning and teaching methods for problem solving that integrate the use of technology, the internet, and computer software in math instruction for grades 6-8. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>18PRFS606</td>
<td>Teaching Arithmetic</td>
<td>This course reviews the four arithmetic operations and considers how children develop meaningful approaches to the operations. Students learn to analyze thinking processes and guide children in learning computation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00</td>
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<tr>
<td>18PRFS611</td>
<td>Teaching Communication Skills</td>
<td>This course develops critical communication skills for instruction and student relationships. Special attention is paid to effective utilization of technology and online communications. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>18PRFS612</td>
<td>The Online Learning Environment</td>
<td>Introduction to basic concepts of the internet and utilization of its content in classroom lessons. Includes completion of an internet-based lesson plan and classroom website for lesson management. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>18PRFS613</td>
<td>Developmental Psychology: Middle Childhood thru Adolescence</td>
<td>Topics include the physical and cognitive development extending from the middle childhood through adolescent years. Also includes implications for instruction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>18PRFS614</td>
<td>Mentoring and Coaching in Early Childhood Education</td>
<td>Mentoring and coaching in early childhood education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>18PRFS615</td>
<td>Reading in the Content Areas</td>
<td>Seminar course covering specific topics for reading in the content areas. May be offered online. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00</td>
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<tr>
<td>18PRFS616</td>
<td>Art-Music in ECE</td>
<td>Methods and techniques in art and music integration in early childhood education. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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</tbody>
</table>

H=University Honors course.  
BoK (Breadth of Knowledge) Coding.  
DC: Diversity & Culture.  
EC: English composition.  
FA: Fine Arts.  
HP: Historical Perspectives.  
HU: Humanities.  
LT: Literature.  
NS: Natural Sciences.  
QR: Quantitative Reasoning.  
SE: Social & Ethical Issues.  
SS: Social Sciences.
Professional Seminar

18PRFS630
Cognitive Coaching
Mentor teachers will be trained to coach new teachers to grow as individuals, focusing on efficacy, flexibility, craftsmanship, consciousness, and interdependence. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS631
Managing Challenging Behavior
This course addresses approaches to challenging student behaviors through influencing factors analysis and intervention approaches. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS632
Cultural Diversity
This course is one of a series of topical seminars in cultural diversity in an educational setting. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS633
Reading and Writing Literary Braille
Participants follow a programmed instruction text leading to mastery in both reading and writing the literary braille code. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS635
Professional Learning Communities
Designed for in-service teacher leaders and curriculum personnel in a K-12 setting. Examines strategies for creating and maintaining professional learning communities and whole faculty study groups. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS639
Improving the Learning Environment
Topic classes that address various ways in which teachers can improve the teaching and learning environment. Special attention is given to ways in which teachers can intervene and effectively modify student behaviors to improve achievement. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS641
Staff Development Seminar
Seminar in various areas of staff development. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS642
Advanced Staff Development Seminar
Advanced seminar in various areas of staff development. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18PRFS646
Supervised Field Clinical Experience (Alternative Licensure)
Teaching experience in supervised conditions. A planning, performance, and reflection cycle is used to cause candidates to become aware of factors that influence instruction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS647
Computer Programs for Teachers
The goal of this class is to acquaint participants with the computer programs that are applicable to classroom instruction, student record maintenance, and communications. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS648
Language Development
This course is a survey of language development, including factors influencing development and learning, effects of disabilities on language development and learning, and the relationship of language and literacy emergent through adolescence. The role of cultural diversity and limited English proficiency will also be discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS649
Chemistry and Forensic Science for Teachers
Teachers will learn how chemistry can help with understanding how a product works. Teachers will also learn basic forensic techniques including document analysis, soil analysis, blood analysis, and drug analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS650
Human Learning
An introduction to the analysis of learning and teaching as it occurs in educational settings. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS651
Montessori Secondary Structure and Organization
This course examines program models and curriculum development at the secondary level. State and local standards are integrated with the Montessori Philosophy at the secondary level. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS652
Montessori Erdkinder
Students will form a strong community through seminars on stewardship and sustainability, shared work projects, and activities that illustrate the cycle of life and death. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS653
NBPTS from Start to Finish
A series of workshops to provide teacher mentors with additional training to support the development of new mentors. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS655
NBPTS: Pre-Candidate Program
During an intensive week-long institute, teachers develop an understanding of core concepts associated with this assessment process. They develop an understanding of the standards and the role they play in the assessment process. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS657
Use of Technology in Classroom Science
Science education and the integration of technology in the schools. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18PRFS660
NBPTS: Advanced Candidate
National Boards (NBPTS) advanced candidate seminar. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

18PRFS662
NBPTS Start to Finish - Course #2
The second of two courses providing the cognitive and collegial support for teachers to qualify for National Board (NBPTS) certification. Prereq: 18PRFS653. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

18PRFS663
Special Topics Math
Special topics in math education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18PRFS664
Special Topics in Science Education I
Special topics in science education, first course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-7.00

18PRFS665
Special Topics in Science Education II
Special topics in science education, second course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-7.00

18PRFS666
Cooperative Discipline
This course will address causes of student misbehavior and help participants develop strategies to deal with student discipline in a
Basic teaching in special education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Conducting Classroom Walk-Throughs
This course trains teachers and principals to improve achievement in their schools using the walk-through procedure. Content includes specific actions and activities that will enhance the quality of student learning and achievement. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

Math: Advanced Concepts Grades 6-12
Course is designed for teachers who are oriented toward the high school student with advanced concepts in middle school math. BoK: NA. Credit Level: G, U. Credit Hrs: 1.00-6.00

SBE Earth and Space Sciences OSCI Institute
The Ohio Science Institute improves student achievement in Standards-Based Education (SBE) through teacher development related to understanding science content and process standards, developing inquiry learning approaches, meeting the needs of all students, creating assessments, and applying technology. This course concentrates on earth and space science. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

SBE Physical Sciences OSCI Institute
The Ohio Science Institute improves student achievement in Standards-Based Education (SBE) through teacher development related to understanding science content and process standards, developing inquiry learning approaches, meeting the needs of all students, creating assessments, and applying technology. This course concentrates on physical sciences. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

SBE Life Sciences OSCI Institute
The Ohio Science Institute improves student achievement in Standards-Based Education (SBE) through teacher development related to understanding science content and process standards, developing inquiry learning approaches, meeting the needs of all students, creating assessments, and applying technology. This course concentrates on life sciences. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Education and the Framework of Poverty
This course is designed to equip teachers to help students from poverty achieve success in the school and workplace. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Special Topics in Mathematics and Science Education
This series of classes examines topical areas in mathematics and science education including curriculum content, instructional strategies, and standards-based education. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Earth Science in Education
This course is designed to allow teachers to explore issues related to earth science and earth science education through an intensive, hands-on experience. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

OISM Year One
First year training modules for intervention-based services. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

OISM Advanced
Basic teaching in special education. BoK: NA. Credit Level: U, G. Credit
6.00
Current topics in literacy education. Credit Level: G. Credit Hrs: 1.00-6.00

Multiple Intelligence
Workshop offered online, with two sessions in-person, offered for teachers interested in learning about new developments regarding student intelligence and implications for classrooms. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Mentoring in Head Start
Teachers will learn various techniques to mentor students who are learning about Head Start teaching. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Interactive Writing
Learning how to integrate phonics, spelling, grammar, and writing requirements of the curriculum. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Introduction to Curriculum Mapping
Learners explore the history and purpose of curriculum mapping, the role an individual teacher plays in curriculum mapping, the types of maps, and the various data collected in the maps. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Understanding Student Motivation
This course will help teachers learn about student motivation, the power of intrinsic motivation, and how to enhance motivation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Classroom Management: Building Relationships for Better Learning
This course instructs teachers on ways to build solid, working relationships with their students in order to maintain a positive, constructive working environment in the classroom. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

Conflict Resolution
This course instructs teachers on how to handle conflict between students in a classroom setting. Teachers will learn how to become mediators and the various approaches to be used when becoming involved in resolving conflicts. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

SERRC: Effective Teaching
Effective teaching strategies in special education. Credit Level: G. Credit Hrs: 1.00-5.00

Cooperative Learning in the Classroom
This course will provide specific cooperative learning structures that work in all grade levels. Participants will examine the rationale and research for cooperative learning and be provided with dozens of cooperative learning structures that participants can use immediately. Topics include: team formation, seating arrangement, team building, class building, social skills, classroom management, and cooperative learning structures. Credit Level: G. Credit Hrs: 1.00-6.00

Advanced Topics in Literacy
Current topics in literacy education. Credit Level: G. Credit Hrs: 1.00-6.00
Leadership Development Support

18PRFS700
Montessori Pedagogy of Place
Pedagogy of Place gives students a chance to experience real field studies within their own disciplines. During this class, teachers will learn to design their own experiential courses. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS668
Montessori Curriculum Development
Participants in this class will re-examine the models and curriculum presented in Curriculum Development. Implementing procedures for student accountability within the classroom and beyond will also be discussed. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS667
Montessori Practicum
Practicum will provide supervised teaching/learning experience and a period of observation, internalization, and further study, to bring together the theory and practice of Montessori Education. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS690
Special Topic Special Education
Special topics of interest in special education. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS692
Special Topics Collaborative Teaching
Special topics and issues in teaching collaboratively. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS699
NBPTS Summer Institute
Developing and understanding the standards of accomplished teaching of the NBPTS. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS700
Designing Performance Assessments
This course discusses various types of performance assessments, as well as techniques for creating them. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS701
Toward Equity in Achievement
This course will help leaders explore what it means to strive for equity in achievement and will provide insight about education policies. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS702
Advanced Cognitive Coaching
Teachers will be trained to be in-house trainers for the foundation level of Cognitive Coaching. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS703
SIRI Pre-Kindergarten Reading Instruction
State Institute for Reading Instruction, covering topics as a framework for conceptualizing early childhood learning and development. Credit Level: G. Credit Hrs: 1.00-10.50

18PRFS704
Leadership Development Support
A course meant to support leadership development in the schools. Credit Level: G. Credit Hrs: 3.00

Bullying: Let’s Break the Cycle
Students will investigate the three components of an effective bullying definition; the effect of bullying on stakeholders’ perspectives; strategies that support the bully; and identify successful intervention programs. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS713
Supervising Paraeducators in Your Classroom
This course deals with working with paraprofessional instructional aides in the classroom and in tutoring situations. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS714
Seminar in Special Issues in Math
Seminar in special topics and issues for the math area in teaching. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS715
Human Learning
An introduction to the analysis of learning and teaching as they occur in educational settings is presented in this course. Credit Level: G. Credit Hrs: 1.00-6.00

State Institute for Reading Instruction (SIRI): Focus on the First R
A four-day institute providing foundational knowledge and skills about reading development, effective classroom reading instruction in five essential components, differentiated instruction, and the state standards and assessment system. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS708
State Institute for Reading Instruction (SIRI): Focus on Reading Diagnostics and Lesson Design
A four-day institute for teachers who have completed the "First R" or have demonstrated advanced SBR training. Teachers learn to apply SBR instruction in a "assess, plan, teach" instructional cycle. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS710
Response to Intervention (RTI) Fundamentals
Response to Intervention (RTI) gives schools an opportunity to intervene early and change identification practices. This course covers the fundamentals, including federal law, history, research, implementation, and evaluation. An on-line class. Credit Level: G. Credit Hrs: 1.00-6.00

Professional Seminar

18PRFS705
State Institute for Reading Instruction (SIRI): Adolescent Literacy
This course provides teachers with foundational knowledge about adolescent literacy development, effective classroom reading instruction, and reading strategies within the Ohio Educational Standards and assessment system. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS706
Readings in Literacy: Literacy Specialist Project
A graduate literacy course, CORE, which focuses on literacy specialists’ and teachers’ study of CORE curriculum. It is based on the Ohio Standards and current research and evidence in literacy. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS707
Literacy CORE Pathway II
A graduate literacy course, Pathway II is focused on literacy specialists’ and teachers’ study of children’s learning through diagnostic/evidenced-based methods. It involves multiple use of various developmental-appropriate assessments and instruction through a rigorous program of intervention. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS709
State Institute for Reading Instruction (SIRI): Focus on Reading Achievements and Intervention
A four-day institute giving teachers an opportunity to intervene early and change identification practices. This course covers the fundamentals, including federal law, history, research, implementation, and evaluation. An on-line class. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS711
Creating and Sustaining Professional Learning Centers
This course will investigate how contemporary school leaders communicate and collaborate with all stakeholders to promote improved student learning. Credit Level: G. Credit Hrs: 1.00-6.00
This course is designed to help teachers involve students in the process of active, rather than passive, learning techniques. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS715
Human Learning
Hrs: 1.00-6.00

18PRFS719
Field-Based Staff Development
Provides field-based instruction and supervised practice for staff development. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS720
OISM Coaching
This course is designed for OISM coaches who will assist their districts and buildings in the implementation of OISM. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS721
State Institute for Reading Instruction (SIRI):  SIRI Extensions
Participants will implement a continuous and reflective professional development model for reading, writing, and content, based on State Institute for Reading Instruction (SIRI) guidelines. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS722
Seminar Methodology I
This seminar course examines different elementary, middle, and secondary teaching methodologies. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS723
Student Portfolios
This course examines various uses of a portfolio and the benefits of using it in the classroom. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS724
Integrating Technology, Multimedia, and Curriculum
Provides skills and experiences for integrating the use of technology and multimedia tools in curriculum for school-based staff. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS725
Seminar and Assessor Training
This course is designed strictly for veteran teachers who have been selected by their school districts to become assessors. They will understand the assessor's role in licensure as well as pass the APT to become assessors for the state. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS726
Seminar Reflective Practice
Seminar in reflective practice and teaching. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS727
Application Based Instruction:  Pathwise Training
This training is to provide teachers with a working knowledge of the Pathwise framework. This will allow mentors to develop good observation skills, provide objective feedback and suggestions, as well as prepare entry-year teachers for Praxis III. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS728
Seminar in Teaching Language Arts
Seminar in topics related to teaching language arts. Topics vary with each seminar. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS729
Seminar in Standards-Based Curriculum
A series of seminars related to topics in standards-based curriculum and its effect on curriculum design and instructional strategies. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS730
Cooperative Grouping Strategies
This course is designed help teachers involve students in the process of active, rather than passive, learning techniques. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS731
Transforming Students from Academic Consumers to Producers
This course will instruct teachers on how to design learning centers aligned to Ohio Literacy standards. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS732
Managing Literacy Learning Situations
This course will instruct teachers on how to design learning centers aligned to Ohio Literacy standards. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS733
Strategic Instructional Design
This course focuses on teacher behavior in two areas: effective lesson design and quality instructional practices. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS734
Action Research in Support of School Change and Continuous Improvement
Introduction to action research, evaluation, and case study research methods to support schools in applying data to drive their school change and continuous improvement efforts. Credit Level: G. Credit Hrs: 2.00-3.00

18PRFS735
Action Research in Support of School Change and Continuous Improvement
Action research, evaluation, and case study research methods to support schools in applying data to track their school change and continuous improvement efforts. Prereq: 18PRFS734. Credit Level: G. Credit Hrs: 2.00-3.00

18PRFS736
Action Research in Support of School Change and Continuous Improvement
Action research, evaluation, and case study research methods to support schools in applying data to track their school change and continuous improvement efforts. Prereq: 18PRFS735. Credit Level: G. Credit Hrs: 2.00-3.00

18PRFS737
Mathematics Professional Development
Students examine how children learn mathematics, research instructional strategies that improve student learning, and learn how to teach mathematics with problem solving as a primary focus. Credit Level: G. Credit Hrs: 1.00-5.00

18PRFS738
Engaging Activities to Motivate Your Students
Teachers will be presented with strategies and activities toward teaching in a standards-based Social Studies classroom. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS739
Engaging Activities Across All Standards
Teachers will be presented with strategies and activities toward teaching standards in American history, government, economics, and geography. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS740
Producers
18PRFS741  Crafting Curriculum
This course focuses on guiding curriculum development questions and examines the way in which instruction and assessment are supported by the curriculum. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS742  Competence Promotion
The promotion of competence in teaching and learning techniques for the student. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS743  Literacy
This course will help teachers develop techniques to support literacy development. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS744  Phonics & Reading
Teachers will learn the fundamental principles and concepts to teach reading. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS745  Transitioning from Secondary to College Level Writing
This course will instruct teachers in ways to increase and improve writing skills of secondary students. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS746  Using Personal Finance to Enhance Learning in Mathematics
Teachers will learn to help students better understand math skills as they relate to personal finance decisions. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS747  German Art Expressionism
This course offers an in-depth look at German Expressionism, an art movement which occurred in pre-war Germany between 1900 and 1914. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS748  Learning Strategies
Students will understand that the two main memory systems govern different types of learning. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS749  Secondary Teaching Methods: Science
This course focuses on frameworks for thinking about instructional goals in the field, suitable instructional models and practices, values issues associated with the field, as well as pedagogical requirements uniquely associated with science subject matter. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS750  School Leadership
Issues in leadership in the schools. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS751  Teaching Calculus
This course addresses derivatives: graphical, numerical, and algebraic points of view; derivatives of the basic functions; and applications of differentiation. It also covers antiderivatives, integrals, definite integrals, integration, and infinite sequences. Credit Level: G. Credit Hrs: 1.00-9.00

18PRFS752  Advanced Topics in Gifted, Creative, or Talented Education
This course addresses topics in teaching children who are gifted, creative, or talented. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS753  Secondary Teaching Methods: Mathematics
This course focuses on frameworks for thinking about instructional goals in the field, suitable instructional models and practices, values issues associated with the field, as well as pedagogical requirements uniquely associated with mathematics subject matter. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS754  Mathematics Curriculum
This course prepares students to understand the measurement and evaluation aspects of teaching. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS755  Science Curriculum
This course prepares students to understand the aspects of teaching in the field of science. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS756  Calculus
Topics in Probability and Statistics
Several mathematical topics underlying the mathematical approaches to probability and statistics will be presented, developed, and practiced. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS757  Technology Seminar
Seminar in current technology and its use in the classroom. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS760  Meeting Academic Standards with the Internet
Examines ways in which well-designed internet-supported activities can help students meet academic standards efficiently. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS761  Response to Intervention Models
This class focuses on implementation of school-wide intervention practices. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS762  Children’s Authors on the Web
Introduces the basic concepts of author studies and how they can support and enhance student reading and writing. Locates and utilizes author studies available on the web. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS763  Creating and Sustaining Professional Learning Communities
This course instructs educators and administrators to accurately identify and meet the ever-changing needs of each student. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS764  Counselor’s Academy
This course instructs support staff in various public K-12 settings to meet the needs of the students and families they are helping. Credit Level: G. Credit Hrs: 1.00-6.00
Professional Seminar

18PRFS766 Professional Development Natural Life Sciences
Professional development in the natural life sciences. Credit Level: G. Credit Hrs: 4.00

18PRFS767 Professional Development Topics in Ecology
Professional development in the natural life sciences. Credit Level: G. Credit Hrs: 4.00-6.00

18PRFS768 Internship
An Internship experience applied to an identified area of professional development, most often associated with licensure or an endorsement. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS769 Teaching Young Children With Learning Disabilities
This course will introduce methods and strategies for teaching young children with learning disabilities. Credit Level: G. Credit Hrs: 1.00-3.00

18PRFS770 Application-Based Instruction
Current applications and their use in instruction. Credit Level: G. Credit Hrs: 2.00-3.00

18PRFS771 TALL: Teacher Academy for Leaders and Learners in Mathematics Education.
This course will instruct specialists and support staff in public K-12 settings to work with students and families in the area of mathematics education. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS772 Understanding Educational Organizations
This course is the study of organizational theories and their application within education. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS773 Assessment and Intervention for Early Childhood
This course covers foundations in theory, assessment, and intervention techniques for early childhood and preschool intervention. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS774 The Brain
Students will explore the physical aspects of the brain and consider its role in emotions, memory, reasoning, planning, and problem solving. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS775 Exploring the Jewish Experience
This course is designed for teachers in Jewish and non-sectarian schools who are responsible for teaching Jewish studies subjects, topics, and themes through texts, films, and literature. Credit Level: G. Credit Hrs: 1.00-12.00

18PRFS776 Analysis of Student Work
This course is intended to assist school-based mentors, university-based supervisors, interns, and new teachers in the analysis of student work. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS777 Introduction to Instructional Mentoring
This course is intended for educators wishing to become mentor teachers in K-12 schools. Emphasis will be on strategies for creating successful, collegial relationships between the mentor/mentee pairing. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS779 Cognitive Functions
The goal of this class is to provide pre-service teachers with information on how individuals learn, in order to influence how they think about structure, and deliver instruction in the classroom. Credit Level: G.

College of Education, Criminal Justice, and Human Services

Professional Seminar

18PRFS779 Cognitive Functions
Credit Hrs: 1.00-6.00

18PRFS780 Evidenced-Based Practices in Early Intervention for Pre-K Special Needs Endorsement Licensure
A licensure only class in methods and management techniques in providing appropriate developmental experiences for children with disabilities in groups of typically developing children. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS781 Preschool Education and Issues for Early Childhood Special Education Teachers
This course will provide special education personnel with a thorough understanding of the tenets of preschool education philosophy, curriculum, and instruction for all children. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS782 Phonics II
This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS783 Reflection in Teaching
Participants will give thoughtful consideration to the ways in which they now engage in professional work. They will also identify personal priorities and resources for making a credible difference in education through their practice. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS802 Contemporary Issues in American Education
Contemporary issues and topics in the American education system. Credit Level: G. Credit Hrs: 3.00

18PRFS804 Assessment, Evaluation, and Testing in ESL
This online course deals with the application of contemporary research in methodologies and measurement for accurately assessing and linking assessment and instruction in pre-K-12 culturally and linguistically diverse students learning ESL. Discussion of the effect of culture, language, and socioeconomic status on the assessment of ESL learning and achievement and the evaluators' and teachers' attitudes toward diagnosis and instructional recommendations for ESL populations will be emphasized. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS893 Ethics in Educational Leadership
This course is designed to introduce students to a variety of theories of ethical thought and their relationship to educational leadership. Through exposure to multiple ethical modes of thought, the students are invited to reflect upon their own ethical positions and apply them directly to critical dilemmas. Credit Level: G. Credit Hrs: 1.00-6.00

18PRFS950 Superintendency
A course which examines the role, functions, skills, and responsibilities of the school superintendency. As such, it is a course which is multidisciplinary in nature because the position rests at the apex of all school systems. Credit Level: G. Credit Hrs: 1.00-6.00

18PSYC721 School Organization and the Role of the School Psychologist
Orientation to schools as organizations, schools and educational issues, and the role and function of school psychologists and other professionals. Includes supervised field experiences. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Psychology

18PSYC721  School Organization and the Role of the School Psychologist
Orientation to schools as organizations, schools and educational issues, and the role and function of school psychologists and other professionals. Includes supervised field experiences. Credit Level: G. Credit Hrs: 3.00

18PSYC730  Introduction to Legal and Ethical Issues in School Psychology
Examines recent legislation, regulations, court decisions, and ethical standards in terms of their impact on the work of helping professionals. Credit Level: G. Credit Hrs: 1.00

18PSYC781  Professional Seminar III
Various professional seminars. Credit Level: G. Credit Hrs: 1.00-3.00

18PSYC805  Behavior Research and Accountability Methods
Examines research methods and designs appropriate to the study of children’s learning and behavior problems; requires research project. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC810  Developmental Principles and Psychopathology
Foundations for child development and developmental psychopathology from an ecological and competence enhancement perspective. Emphasis is on implications for intervention and practice. Credit Level: G. Credit Hrs: 3.00

18PSYC815  Social Cognitive Theory and Intervention
Reviews recent literature in social and cognitive learning that has implications for assessment and interventions with children. Credit Level: G. Credit Hrs: 1.00

18PSYC821  School Psychology Practicum I
Integrated field experience in individual child study, assessment and intervention design, and related professional skills. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC822  School Psychology Practicum II
Integrated field experience in individual child study, assessment and intervention design, and related professional skills. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC823  School Psychology Practicum III
Integrated field experience in individual child study, assessment and intervention design, and related professional skills. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC824  Early Intervention Practicum I
Integrated, applied, supervised experience in school psychological services in early childhood settings. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC825  Early Intervention Practicum II
Integrated, applied, supervised experience in school psychological services in early childhood settings. Credit Level: G. Credit Hrs: 1.00-5.00

18PSYC826  Early Intervention Practicum III
Integrated, applied, supervised experience in school psychological services in early childhood settings. Credit Level: G. Credit Hrs: 1.00-5.00

Psychology

18PSYC840  Theories of Measurement for School Psychology
This first course in a sequence of required assessment courses provides foundational, technical, and theoretical knowledge in assessment and measurement theory and concepts. Credit Level: G. Credit Hrs: 3.00

18PSYC841  Introduction to Intellectual Assessment
Measurement of intellectual and cognitive functioning of children and adolescents, interpretation of scores, and test use. Credit Level: G. Credit Hrs: 3.00

18PSYC842  Academic Assessment
Practice with advanced techniques in direct and norm-referenced academic assessment for use in intervention planning and progress monitoring. Credit Level: G. Credit Hrs: 3.00

18PSYC843  Functional Assessment
An intensive introduction to functional assessment with low incidence populations, with particular emphasis on functional behavioral assessment and intervention. Credit Level: G. Credit Hrs: 3.00

18PSYC850  Assessment and Intervention for Early Childhood
Foundations in theory, assessment, and intervention techniques for early childhood and preschool intervention. Credit Level: G. Credit Hrs: 3.00

18PSYC851  Family Interventions: Theory and Application
An examination of foundations for working with families in schools with emphasis on developing school-based interventions and increasing home-school collaboration. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC852  School-Based Behavioral Counseling
Provides knowledge, skills, and practice for development, implementation, and evaluation of school-based counseling groups for children and adolescents from an ecobehavioral orientation. Requirements include co-leading group and data-based portfolio entry. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC853  School-Based Behavioral Counseling Practicum
Supervised experiences in school-based behavioral counseling for groups and individuals. Prereq: 18PSYC862. Credit Level: G. Credit Hrs: 1.00-3.00

18PSYC855P  PreK Special Needs: Assessment and Intervention
Pre-K Special Needs Endorsement course addressing foundations in theory, assessment, and intervention techniques for early childhood. Credit Level: G. Credit Hrs: 3.00

18PSYC860  Applied Behavior Analysis
Provides intensive introduction and practice in applied behavior analysis procedures and their use in developing classroom intervention strategies. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC861  Foundations in Social/Behavioral Assessment and Intervention
Examines and provides practice in implementing and evaluating school-based interventions within the methodology of applied behavior analysis. Emphasis is on application with social-emotional problems. Credit Level: G. Credit Hrs: 3.00

18PSYC862  Academic Interventions
Examines a wide range of research-based intervention procedures for children’s academic problems. Practicum component included.
Psychology

18PSYC862
Academic Interventions
involving design and implementation of intervention program for students experiencing classroom difficulty. Credit Level: G. Credit Hrs: 3.00

18PSYC863
School-Based Mental Health Prevention and Intervention
Foundations and principles for effective school-based group and system level interventions and accountability, with an emphasis on school-wide prevention programs and crisis response. Credit Level: G. Credit Hrs: 3.00

18PSYC871
Individual Study in School Psychology
Individual research on a problem relevant to school psychology. Faculty/individual contract required. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC872
Consultation I
Examines variables which influence consultative effectiveness; emphasizes skill development in collaborative problem-solving techniques. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18PSYC873
Consultation II
Examines the conceptual and practical basis for effective consultation-based service delivery and use of collaborative problem-solving at a systems level. Credit Level: G. Credit Hrs: 3.00

18PSYC877
Critical Examination and Legal-Ethical Issues for Professional Practice
Review of legal, ethical, and professional practice issues in school psychology. Includes critical review of current issues in professional practice. Credit Level: G. Credit Hrs: 2.00

18PSYC879
Field Practicum in School Psychology
School Psychology field practicum. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC881
Advanced School Experience I
Provides advanced experience in services delivery, leadership and systems change, supervision, and research for doctoral students in School Psychology. Involves field-based work and seminars. Prereq: 18PSYC821, 18PSYC822. Coreq: 18PSYC823. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC882
Advanced School Experience II
Provides advanced experience in services delivery, leadership and systems change, supervision, and research for doctoral students in School Psychology. Involves field-based work and seminars. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC883
Advanced School Experience III
Provides advanced experience in services delivery, leadership and systems change, supervision, and research for doctoral students in School Psychology. Involves field-based work and seminars. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC891
Internship in School Psychology I
Supervised experiences in an applied setting plus regular on-campus seminars as arranged. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC892
Internship in School Psychology II
See 18PSYC891. Information, skills, and experiences in indirect service delivery methods. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC893
Internship in School Psychology III
See 18PSYC891. Information, skills, and experiences in indirect service delivery methods. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC905
Advanced Behavioral Research Methods
Examines advanced measurement, sampling, experimental design, and data analysis for single case experimental research. Designed for doctoral students in School Psychology and related disciplines. Credit Level: G. Credit Hrs: 2.00

18PSYC910
Advanced Behavioral Theory and Practice
Surveys major areas of learning from a behavioral point of view, from its parochial origins to specific demonstrations and applications in human and nonhuman research. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

18PSYC953
Doctoral Colloquium in School Psychology
Discussion of research experiences, professional issues, and leadership. Credit Level: G. Credit Hrs: 1.00

18PSYC954
Doctoral Colloquium in School Psychology
See 18PSYC953. Credit Level: G. Credit Hrs: 1.00

18PSYC961
Doctoral Internship in School Psychology
Culminating field-based Internship, providing comprehensive school psychological services, for doctoral-level School Psychology students. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC962
Doctoral Internship in School Psychology II
Culminating field-based Internship, providing comprehensive school psychological services, for doctoral-level School Psychology students. Prereq: 18PSYC961. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC963
Doctoral Internship in School Psychology III
Culminating field-based Internship, providing comprehensive school psychological services, for doctoral-level School Psychology students. Prereq: 18PSYC962. Credit Level: G. Credit Hrs: 1.00-15.00

18PSYC973
Individual Dissertation Guidance
Individual study. Credit Level: G. Credit Hrs: 1.00-15.00

Secondary Education

18SEC502
Curriculum in Secondary Schools: Foreign Language
Conceptions and theoretical perspectives of foreign language curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC503
Curriculum in Secondary Schools: Language Arts
Conceptions and theoretical perspectives of language arts curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC504
Curriculum in Secondary Schools: Mathematics
Conceptions and theoretical perspectives of mathematics curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
Secondary Education

18SEC505
Curriculum in Secondary Schools: Science
Conceptions and theoretical perspectives of science curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC506
Curriculum in Secondary Schools: Social Studies
Conceptions and theoretical perspectives of social studies curriculum and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC511
Instructional Planning
Focuses on pedagogical concepts and principles related to planning and teaching lessons. Relates theory and research to instructional practices. Emphasizes basic instructional models and techniques. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC515
Instructional Management
Examines the impact of the physical and social organization on learner involvement and behavior. Addresses values and principles to be reflected in a teacher's managerial policies. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC516
Field/Clinical Experience II
Fifty-hour experience at an assigned school involving observing and teaching in classrooms related to area of licensure sought. Addresses both instructional and management topics and issues. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

18SEC520
Secondary Teaching Methods: Language Arts
Develops planning and teaching skills especially appropriate to the teaching English in secondary school classrooms. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC521
Field/Clinical Experience I: Language Arts

18SEC530
Teaching Methods: Foreign Language
Pedagogical and theoretical frameworks necessary to implement effective second language classroom instruction. Prereq: 18SEC511. Coreq: 18SEC531. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC531
Field/Clinical Experience I: Foreign Language

18SEC540
Secondary Teaching Methods: Mathematics
Develops planning and teaching skills especially appropriate to the teaching of mathematics. Prereq: 18SEC511. Coreq: 18SEC541. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC541
Field/Clinical Experience I: Mathematics

18SEC550
Secondary Teaching Methods: Science
Develops planning and teaching skills especially appropriate to the teaching of science subjects. Prereq: 18SEC511. Coreq: 18SEC551. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

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Secondary Education

18SEC550
Secondary Teaching Methods: Science
Develops planning and teaching skills especially appropriate to the teaching of science subjects. Prereq: 18SEC511. Coreq: 18SEC551. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC551
Field/Clinical Experience I: Science

18SEC560
Secondary Teaching Methods: Social Studies
Develops planning and teaching skills especially appropriate to the teaching of social studies. Prereq: 18SEC511. Coreq: 18SEC561. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC561
Field/Clinical Experience I: Social Studies

18SEC568
Practicum in Secondary Education
Restricted option for teaching opportunities in secondary schools. By special arrangement. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18SEC570
Teaching Reading, Writing, and Learning Strategies
Examines the role of reading and writing in content area classrooms. Addresses young adult reading, writing, and learning strategies and ways to enhance them. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC620
Applied Secondary Teaching Methods: English/Language Arts
Refines and develops English/language arts-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC630
Applied Secondary Teaching Methods: Foreign Languages
Refines and develops foreign language-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC640
Applied Secondary Teaching Methods: Mathematics
Refines and develops mathematics-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC650
Applied Secondary Teaching Methods: Science
Refines and develops science-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC660
Applied Secondary Teaching Methods: Social Studies
Refines and develops social studies-related teaching skills in conjunction with the Internship experience. Prereq: 18SEC511. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC671
Teaching Literature in the Secondary School
Examines adolescent and young adult literature, including development of interest and appreciation, materials, and programs. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SEC672
Reading Improvement in Secondary Schools
Focuses on the diagnostic teaching of developmental and content area
developing communication skills, both receptive and expressive. An
linguistic, cultural, and sociolinguistic information regarding ASL while
A first level course in the visual, gestural language of American Sign
SS., DC. Credit Level: U. Credit Hrs: 3.00
literature as they apply to deaf culture and the deaf community. BoK:
disciplines of history, anthropology, linguistics, creative arts, and
issues in the field of deafness. This course also integrates the
This course is intended to introduce students to the major concepts and
Sixty-hour clinical/field experience observing and practicing the
techniques being developed in the corequisite reading improvement
course. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00
Intensive experience at a secondary school involving the assumption of
sustained teaching responsibilities. Prereq: 18SEC511. BoK: NA. Credit
Level: U, G. Credit Hrs: 9.00

Intensive Internship Teaching I
Extended experience at a secondary school involving the assumption of
sustained teaching responsibilities. Prereq: 18SEC511. BoK: NA. Credit
Level: U, G. Credit Hrs: 9.00

Independent Study in Secondary Education
Restricted option for advanced study of special topics. By special
arrangement with a program faculty member. Credit Level: G. Credit
Hrs: 1.00-6.00

Master Internship Teaching
An intensive teaching experience at an approved secondary school.
Credits are based on the nature of the Internship. Prereq: 18SEC511,
Credit Level: G. Credit Hrs: 6.00-12.00

Secondary Education: Issues
Focuses on contemporary and enduring issues and problems
influencing secondary schools in the United States. Credit Level: G.
Credit Hrs: 3.00

Individual Study in Secondary Education
Restricted option for advanced study of special topics. By special
arrangement with a program faculty member. Credit Level: G. Credit
Hrs: 1.00-6.00

Individual Study in Secondary Education
Restricted option for doctoral students for advanced study of special
topics. By special arrangement with a program faculty member. Credit
Level: G. Credit Hrs: 1.00-6.00

Graduate Reading in Secondary Education
Restricted option for doctoral students. By special arrangement with a
program faculty member. Credit Level: G. Credit Hrs: 1.00-6.00

Special Education

Orientation to Deafness
This course is intended to introduce students to the major concepts and
issues in the field of deafness. This course also integrates the
disciplines of history, anthropology, linguistics, creative arts, and
literature as they apply to deaf culture and the deaf community. BoK:
SS., DC. Credit Level: U. Credit Hrs: 3.00

American Sign Language I
A first level course in the visual, gestural language of American Sign
Language (ASL). This course is designed to offer an overview of
linguistic, cultural, and sociolinguistic information regarding ASL while
developing communication skills, both receptive and expressive. An
understanding of culture and identity of the deaf community will be
incorporated into this course. BoK: DC. Credit Level: U. Credit Hrs: 3.00

American Sign Language II
A second level course in the visual, gestural language of American Sign
Language (ASL). This course is designed to offer an overview of
linguistic, cultural, and sociolinguistic information regarding ASL while
developing communication skills, both receptive and expressive. An
understanding of culture and identity of the deaf community will be
incorporated into this course. This course will be conducted in sign
language with minimal voicing. Prereq: 18SPED191. BoK: DC. Credit
Level: U. Credit Hrs: 3.00

American Sign Language III
A third level course in the visual, gestural language of American Sign
Language (ASL). This course is designed to offer an overview of
linguistic, cultural, and sociolinguistic information regarding ASL while
developing communication skills, both receptive and expressive. An
understanding of culture and identity of the deaf community will be
incorporated into this course. This class will be conducted in sign
language with minimal voicing. Prereq: 18SPED191, 18SPED192. BoK:
DC. Credit Level: U. Credit Hrs: 3.00

Introduction to Interpreting Theory and Practice
This course will provide students with foundations of working in the
interpreting field including, influences of culture on communication,
working in multicultural communities, cultural frames, processing
models of interpretation, mediation challenges, history and
professionalization of interpreting, principles of professional practice,
Credit Hrs: 3.00

Processing Skills Development for Interpreters
This course will introduce various cognitive processes involved in sign
language interpreting including memorization, the role of memory in
the interpretation process, acuity and discrimination, phrase and word level
pattern inferences, and delayed repetition. Concept application will be
demonstrated through performance-based assessment. BoK: DC.
Credit Level: U. Credit Hrs: 3.00

Methods of Interpreting
This course concentrates on further development and application,
including analysis, of consecutive and simultaneous sign language
interpreting. Additional aspects of interpreting such as expanded
lexicon, fingerspelling competencies and current topics will be
addressed. Prereq: 18SPED202. BoK: DC. Credit Level: U. Credit Hrs:
1.00-6.00

Psychosocial Aspects of Deafness
This course is designed to introduce students to psychosocial aspects
of deafness. Students will learn about the language, norms of behavior,
values, and traditions. The evolution of a pathological view of deaf
people to a cultural one will be analyzed from a historical and
sociological perspective. BoK: SS., DC. Credit Level: U. Credit Hrs:
3.00

History of Deaf Heritage
This course is an introductory survey of the unique characteristics
influencing deaf people throughout the past hundred years, and the
achievements and accomplishments made by deaf individuals in
various professional fields. Also, students will learn the importance of
the national organizations of the deaf and of the achievements of deaf
advocacy groups protecting the rights of deaf people. BoK: HP., DC.
Credit Level: U. Credit Hrs: 3.00
Special Education

18SPED250 Foundations and History of Special Education
This course is designed for teacher candidates to understand the issues and concepts related to the history and foundation of special education. This course is directly related to the Council for Exceptional Children (CEC) Special Education Content Standard #1: Foundations; Standard #2: Development and Characteristics of Learners; and Standard #3: Individual Learning Differences. BoK: SE. Credit Level: U. Credit Hrs: 4.00

18SPED291 Intermediate American Sign Language I
The course seeks to deepen students' grammatical competency on all linguistic levels: sign formation, vocabulary, morphology, syntax, and discourse. Emphasis will be placed upon improving students' receptive and productive abilities through exposure to connected discourse. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED292 Intermediate American Sign Language II
The course seeks to deepen students' grammatical competency on all linguistic levels: sign formation, vocabulary, morphology, syntax, and discourse. Emphasis will be placed upon improving students' receptive and productive abilities through exposure to connected discourse. Prereq: 18SPED291. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED293 Intermediate American Sign Language III
The course seeks to deepen students' grammatical competency on all linguistic levels: sign formation, vocabulary, morphology, syntax, and discourse. Emphasis will be placed upon improving students' receptive and productive abilities through exposure to connected discourse. Prereq: 18SPED291, 18SPED292. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED310 Legal Issues of Deafness
A comprehensive course about deaf and hard of hearing individuals seeking equal access to social services, education, employment, and medical care, including federal and state laws prohibiting discrimination against the handicapped. BoK: SS., DC. Credit Level: U. Credit Hrs: 3.00

18SPED311 Advanced Interpreting and Transliterating Skills Development
Course focuses on deeper understanding and application of cognitive processing skills employed during consecutive simultaneous interpretation. Course will focus on additional theoretical foundations related to interpreting skills needed to manage the interpreting process successfully. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED312 Critical Analysis for Interpreters
Through application of the Demand-Control Schema, students explore and discuss the interpreting contexts, examine roles and responsibilities, and address situational issues occurring within these contexts. Prereq: 18SPED311. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED313 Discourse Analysis for Interpreters
This course is the study of discourse for interpreters by analyzing interpreters' communicative competence. Knowledge of what is appropriate in various language communities will be examined. This course also includes the study of conversational interactions in English and ASL, including an analysis of the context and intentions of the people within various communication events. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18SPED314 Portfolio Assessment I
Course will provide students with a structured method for synthesizing evidence of learning and accomplishments into a formal portfolio. BoK: DC. Credit Level: U. Credit Hrs: 1.00

18SPED321 Educational Interpreting and Transliterating Skills Development
Students will explore the role of the educational interpreter in K-12 and post-secondary settings. Relative laws and regulations, communication methods, resources, and practices by various members of the educational community will be covered. Topics that concern educational interpreters, including ethical and educational practices, will also be investigated. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED322 Interpreting and Technology
This course is designed to study the relationship of technology on the deaf community. Students will engage in discussions to increase awareness and understanding of technology employed in various contexts. Students will also participate in activities designed to increase competencies needed for interpreting with technology. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED323 Community Interpreting and Transliterating Skills Development
Course focus includes ethical topics in interpreting/transliterating, including students' role in the interpreting/transliterating process. Course will address various interpreting/transliterating settings within community interpreting/transliterating in complex conflict resolutions. Course will focus on additional concepts related to advanced level interpreting/transliterating skills specifically related to the influence of environmental factors. Prereq: 18SPED322. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED324 Business and Leadership of Interpreting
Students will explore various leadership theories and their application to the field of sign language interpreting. Business practices and ethics as they pertain to community sign language interpreters will be explored through use of small business service provider models. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18SPED325 Educational Interpreting and Learning
Students will explore the role of the educational interpreter in K-12 and post-secondary settings. Relative laws and regulations, as well as communication methods, resources, and practices by various members of the educational community will be covered. Topics that concern educational interpreters including ethical and educational practices will also be investigated. Prereq: 18SPED321. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED326 Educational Interpreting and Language
This course examines child development and the acquisition of a first language for hearing and deaf children. Students gain understanding of children's growth and development and the role of language and the influence on interpreting experiences. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18SPED391 Advanced American Sign Language and Linguistics
This course will cover Units 1-4 in Signing Naturally-Level III curriculum. Students will increase their skills in receptive and expressive American Sign Language grammar, semantics, syntax, and discourse via a total immersion experience (no voicing in the classroom). Prereq: 18SPED293. BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED392 Advanced American Sign Language II
This course will cover Units 5-8 in Signing Naturally-Level III curriculum. Students will increase their skills in receptive and expressive American Sign Language. BoK: SE. Credit Level: U. Credit Hrs: 3.00
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18SPED392 Advanced American Sign Language II
Sign Language grammar, semantics, syntax, and discourse via a total immersion experience (no voicing in the classroom). BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED393 Advanced American Sign Language III
Advanced American Sign Language III will cover Units 9-12 in Signing Naturally-Level III curriculum. Students will increase their skills in receptive and expressive American Sign Language grammar, semantics, syntax, and discourse via a total immersion experience (no voicing in the classroom). BoK: DC. Credit Level: U. Credit Hrs: 3.00

18SPED401 Field Experience Preparation
This course introduces students to the concepts and practice of service learning and mentoring/guided leadership for interpreting. The course prepares students for service learning and guided leadership projects through design, development and discussion of proposals. Prereq: 18SPED313. BoK: SE. Credit Level: U. Credit Hrs: 2.00

18SPED402 Field Experience I: Service Learning
This is a field experience course designed to focus on service learning. The students will have the opportunity to interact with various members of the Deaf and/or Interpreting community to enrich their understanding of the culture and profession. Students will conduct projects previously designed during 18 SPED 401. Prereq: 18SPED401. BoK: DC. Credit Level: U. Credit Hrs: 6.00

18SPED403 FIELD EXPERIENCE II: MENTORING
This is a field experience course designed to focus on peer mentoring and development. The students will have the opportunity to interact with other student interpreters who are beginning their internship/practicum experience in sign language interpreting to enrich their understanding of receptive and expressive American Sign Language grammar experience with peer supervision and the novice interpreting experience. Students will conduct projects previously designed during SPED 401. Prereq: 18SPED402. BoK: DC. Credit Level: U. Credit Hrs: 6.00

18SPED404 Professionalism and Ethics
This course guides students in the investigation of professional identity and ethical practice. The course continues student knowledge and skill development for practice through the demand-control schema and interpreting discourse as it relates to ethical standards in the interpreting profession. Prereq: 18SPED312. BoK: SE. Credit Level: U. Credit Hrs: 3.00

18SPED406 Portfolio Assessment II
This course is second in a series of a two-part process for development and synthesis of evidence of learning for a final product, a professional portfolio. Students will examine current trends in the field of interpreting and beyond for collecting and integrating professional artifacts into a formal collection. Prereq: 18SPED314. BoK: SE. Credit Level: U. Credit Hrs: 1.00

18SPED442 Independent Study
Individual study in Special Education. Written agreement developed with faculty member required. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

18SPED508 Instructional Strategies: Students with Mild to Moderate Educational Needs
Instructional strategies for students with mild to moderate educational needs. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

18SPED509 Survey of Learning Disabilities: Mild to Moderate
Introduction to concepts and issues related to individual learning differences. BoK: NA. Credit Level: U. Credit Hrs: 3.00

18SPED511 Teaching Reading and Writing to Students with Disabilities I
A two-course sequence emphasizing cognitive processes related to reading and writing and identification of reading disorders in students with disabilities. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18SPED512 Teaching Reading and Writing to Students with Disabilities II
A two-course sequence emphasizing reading methods, remediation, and intervention strategies to accommodate learners with reading disorders. This course will include interactions with students with disabilities in an applied setting. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18SPED514 Seminar I: Mild to Moderate
Discussion of issues related to Internship and portfolio development. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18SPED518 Instructional Strategies: Students with Moderate to Intense Educational Needs
Instructional strategies for students with moderate to intense educational needs. This course will include interactions with students with disabilities in an applied setting. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED519 Augmentative Communication
Integration of principles of language development with principles of augmentative communication. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED520 Teaching Associate I: Mild to Moderate
Develop skills and ways of knowing and doing in supporting learners with effective instruction. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

18SPED526 Seminar I: Moderate to Intense
Discussion of issues related to Internship and portfolio development. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-6.00

18SPED530 ABA for Educators
Creating a learning environment for classrooms with a special focus on the challenging learner. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED531 Curriculum Planning for Individuals With Learning Differences
Curriculum planning for individuals with learning differences, with special focus on transitions across the life span. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED532 Management of Challenging Behaviors
Foundations of theoretical and behavioral models, with special focus on positive behavioral support, functional assessments, and behavior support plans. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED533 Assessment and Evaluation in Special Education
Discussion and practice of components of effective assessment. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED538 Language Development in Typical and Exceptional Children
A survey of normal language development in children; factors influencing development and learning; effects of disabilities and other

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18SPED538
Language Development in Typical and Exceptional Children
conditions on language development and learning. BoK: DC. Credit Level: U. G. Credit Hrs: 3.00

18SPED581
Overview of Mild, Moderate to Intense Disabilities and their Impact on Learning and Living
Develop in-depth knowledge base in characteristics of learning through reflection, critical analysis, and synthesis. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED600
The Challenging Learner in Society
An introduction to the concepts and issues related to the schooling, learning, and instruction of individuals who experience significant disabilities. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18SPED601
Special Education and the Law
Topics associated with IDEA and related laws. Other topics include theories, learner characteristics, due process, IEP, services, professional ethics, and accountability issues. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

18SPED602
Current Issues in Special Education
This course focuses on various practices/models in providing services and meeting the challenges of individuals with special needs. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED604
Internship I: Mild to Moderate
Develop skills in supporting learner development and success. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

18SPED608
Internship I: Moderate to Intense
Develop skills in supporting learner development and success. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-12.00

18SPED611
Foundations of Literacy
This course focuses on instructional strategies to help children become literate. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED612
Teaching Reading and Writing through Literature
Teaching reading and writing through the use of literature. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED625
Intern Seminar in Special Education
Special Education issues seminar concurrent to post-graduate Internship experience. Prereq: 18SPED624. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

18SPED632
Individual Diversity: Secondary
This course addresses the issues of human diversity, as it is reflected in variations among individuals in learning styles and developmental rates, interaction styles, and accessing the environment through communication, mobility, vision, and audition. Coreq: 18SEC691. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

18SPED641
Phonics I - Special Education
This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

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18SPED642
Phonics II - Special Education
This course is designed to provide research-based and historical/cultural information about the teaching and learning of phonetics, phonics, word study, and spelling in relation to developing learners and a total reading program. Prereq: 18SPED641. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED658
Individuals with Learning Disabilities
This course will focus on identification and assessment, educational approaches, educational services alternatives, interactions in the home and classroom, and current issues and trends with regard to children and youth who have learning disabilities. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

18SPED667
Working with Supporting Families
Discusses methods and interventions for working with and supporting families. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED691
Autism Spectrum Disorders: An Overview for Educators
Introduction to children within the autism spectrum. Survey of characteristics, impact on learning, and intervention strategies. Techniques and methods for providing meaningful educational experiences and activities with individuals who have autistic-like behavior. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

18SPED660P
Gifted Endorsement: Overview of Education for Gifted, Creative, or Talented Students
Develop knowledge, understanding, and respect for the needs and requirements of students with diverse learning needs in varied educational settings. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED661P
Gifted Endorsement: Creating Learning Environments
Students will demonstrate an understanding of technology for planning and managing; choose technologies to modify the instructional process; learn grouping practices that support different learning environments; and identify and prioritize areas of general and differentiated curricula. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED662P
Gifted End: Instructional Strategies
Develop knowledge and understanding of the legal aspects and policy considerations for individuals who may be gifted, creative, or talented. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED663P
Gifted End: Introduction
General introduction to the education of children. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED668P
Gifted End: Legal Aspects and Models
Develop knowledge and understanding of the legal aspects and policy considerations for individuals. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Special Education

18SPED702 Partnerships and Collaboration
Participants will become familiar with the philosophical bases and practical application of interacting collaboratively with colleagues, parents, community members, other professionals, and learners. An introduction to the concepts and issues related to the schooling, learning, and instruction of individuals who experience significant disabilities. Credit Level: G. Credit Hrs: 3.00

18SPED705 Instructional Assessment and Planning
This course (second in a three-quarter sequence) focuses on design, implementation, and assessment of instructional activities for challenging learners. Credit Level: G. Credit Hrs: 3.00

18SPED714 Theories of Language Development I
A survey of linguistic theories and their implications for language learning in normal and linguistically handicapped children and youth. Credit Level: G. Credit Hrs: 3.00

18SPED715 Theories of Language Development II
A continued survey of linguistic theories and their implications for language learning in normal and linguistically handicapped children and youth. Prereq: 18SPED714. Credit Level: G. Credit Hrs: 3.00

18SPED716 Techniques of Developing Language in Children and Youths
Application of language learning theory to classroom instruction and preparation of materials for students. Prereq: 18SPED715. Credit Level: G. Credit Hrs: 3.00

18SPED738 Documenting Professional Practice Through Media
Strategies for documenting and reflecting on professional practice through the use of video: generating evidence for best practice and student learning. Credit Level: G. Credit Hrs: 3.00

18SPED739 Documenting Professional Practice Through Writing
Describing student profiles, reflective questions, and assessment tools in writing; responding to prompts; generating written commentary describing teacher stance and reflections. Credit Level: G. Credit Hrs: 3.00

18SPED740 Teaching Associate Experience
This field experience provides participants with teaching experiences designing, implementing, and evaluating instruction for learners with disabilities. Credit Level: G. Credit Hrs: 1.00-3.00

18SPED745 Clinical/Field Practicum: Special Education
Experiences in schools and agencies serving individuals with disabilities. Credit Level: G. Credit Hrs: 1.00-3.00

18SPED766 Health, Wellness, Leisure, and Transitions
Techniques of delivering career education to individuals with disabilities. Credit Level: G. Credit Hrs: 3.00

18SPED767P Gifted End: Cultural Diversity and Family GCT
Develop knowledge, understanding, and respect for the needs and requirements of students with diverse learning needs in various educational settings. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED768P Gifted End: Assessment
Learn to analyze and understand assessment. Learn the implications of effective assessment for professional development and the role of bias and distortion in the assessment process. This is a professional

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18SPED768P Gifted End: Assessment
Graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED769P Gifted End: Collaboration
Students will demonstrate an understanding of technology for planning and managing; choose technologies to modify the instructional process; learn grouping practices that support different learning environments; and identify and prioritize areas of general and differentiated curricula. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED770P Gifted End: Practicum
Develop and maintain a relationship with the mentor and other members of the team, and interact in the role of instructor to students. This is a professional graduate course offered by the Graduate Program in Special Education in the College of Education, Criminal Justice, and Human Services. Credit Level: G. Credit Hrs: 3.00

18SPED778 Classroom Structure/Behavior Management for Special Education
Principles and practice in classroom structure and behavior management for special education. Credit Level: G. Credit Hrs: 3.00

18SPED781 Concepts and Issues in Developmental Disabilities
A survey course for full-time majors in the field studying the total range of mental disability. Credit Level: G. Credit Hrs: 3.00

18SPED783 Language Development: Implications for Special Education
A survey of normal language development in children; factors influencing language development and learning; implications for educating children with special needs in this area. Credit Level: G. Credit Hrs: 3.00

18SPED785 Thesis Guidance
Individual guidance for Special Education majors who are working on a thesis in the master's degree program. Credit Level: G. Credit Hrs: 1.00-9.00

18SPED786 Project Guidance
Individual guidance for Special Education majors who are working on a special project in the master's degree program. Credit Level: G. Credit Hrs: 1.00-9.00

18SPED787 Master's Project Seminar in Special Education
Exploration of current trends and issues for practitioners. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18SPED790 Intervention Specialist Internship: Moderate to Intense
This course provides opportunities for the graduate student Intern to develop skills in supporting learners' development through the practice of effective instruction. Credit Level: G. Credit Hrs: 1.00-15.00

18SPED796 Intervention Specialist Internship: Mild to Moderate
Teaching Internship working with students who have mild to moderate educational needs. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

18SPED812 Study and Seminar in Communication Assessment
Survey of literature and research; review of procedures and materials on assessment of language, literacy learning, and development in the

H=University Honors course.
Special Education

18SPED812
Study and Seminar in Communication Assessment
variety of modes. Credit Level: G. Credit Hrs: 2.00-12.00

18SPED871
Individual Study in Special Education
Individual research on a problem in the field of special education. Must have signed contract before quarter begins. Credit Level: G. Credit Hrs: 1.00-6.00

18SPED872
Readings in Special Education
Selected readings regarding major research contributions in an area of special education. Written contract required before quarter begins. Credit Level: G. Credit Hrs: 1.00-6.00

18SPED879
Assessment and Intervention in the Classroom
This course will focus on special topics associated with assessment and evaluation of learners who have special needs. Credit Level: G. Credit Hrs: 3.00

18SPED891
Doctoral Seminar in Special Education I
Introduces selected research ideas and methodologies in special education and related fields. Credit Level: G. Credit Hrs: 1.00

18SPED892
Doctoral Seminar in Special Education II
Investigates and critically analyzes selected research literature in special education and related fields from a methodological and conceptual basis. Credit Level: G. Credit Hrs: 1.00

18SPED893
Doctoral Seminar in Special Education III
Investigates and critically analyzes selected research literature in special education and related fields from a methodological and conceptual basis. Credit Level: G. Credit Hrs: 1.00

18SPED897
Doctoral Research in Special Education I
First in a three-course sequence providing students with the foundational knowledge for disabilities studies. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18SPED898
Doctoral Research in Special Education II
Second of a three-course sequence providing students with the skills to identify appropriate RFP’s, design projects, and write proposals for external funding. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18SPED899
Doctoral Research in Special Education III
Third of a three-course sequence providing students with skills emphasizing writing for scholarship, publication, and presentation. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

18SPED901
Theory and Practice in Multidiscipline Evaluation and Diagnosis of Exceptional Children
Advanced instruction in methods and techniques used in the appraisal of exceptional children and youth. Credit Level: G. Credit Hrs: 3.00-5.00

18SPED902
Practicum in Multidiscipline Evaluation and Diagnosis of Exceptional Children
Principles covered in 18SPED901 during supervised program of practical experience. Credit Level: G. Credit Hrs: 3.00-5.00

18SPED903
Seminar and Practicum on Multidiscipline Evaluation and Diagnosis of Exceptional Children
Case study approach. Problems of evaluation; appraisal of exceptional children and youth at CCDD. Credit Level: G. Credit Hrs: 3.00-5.00

College of Education, Criminal Justice, and Human Services

Special Education

18SPED904
Doctoral Internship in Special Education
Orientation, observation, and participation in educational agencies devoted to serving exceptional children, youth, and adults. Quarter and time to be arranged. Credit Level: G. Credit Hrs: 3.00-15.00

18SPED952
Professional Seminar in Teacher Education II: Diversity of Learners and Schooling Processes
Seminar examining the diversity of learners in social groups and the socially constructed nature of the schooling practices that affect them. Credit Level: G. Credit Hrs: 3.00

18SPED971
Non-Thesis Research by a Doctoral Student
Individually supervised research project completed under the tutelage of a full-time faculty member. Credit Level: G. Credit Hrs: 3.00-15.00

18SPED973
Individual Dissertation Guidance
Hours and credit to be arranged. Offered quarterly. Credit Level: G. Credit Hrs: 1.00-15.00

18SPED975
Current Trends and Issues in Special Education: Seminar
An investigation of current trends and issues in the field of special education. Credit Level: G. Credit Hrs: 3.00

18SPED976
Clinical Internship in Special Education
Orientation, observation, and clinical practicum. Credit Level: G. Credit Hrs: 3.00-15.00

Treatment

18TRMT251
Child Protective Services
Course covers a broad knowledge base of child protective services (history, distinctive aspects, scope and demographics, process, treatment, problems, trends) and how this system interacts with law enforcement and the courts. Will explain the what and the why, not the how. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT252
Children and the Courts
The course will analyze judicial attempts to insure the safety and well-being of children in American society. The course will consider the child witness, the child as a crime victim, the orphaned child, and the child in the context of divorce. The course will provide a historical context in which the judicial response has mirrored societies’ changing mores. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT271
Crisis Management
Crisis management is an extensive strategy integrated into human service work. This course will introduce undergraduate social workers and other human service workers to the concepts of crisis work. The course will focus on problems of living, oriented to the here and now. Students will learn strategies from numerous practice theories and interventions. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT278
Stress Management in Treatment
This course provides an analysis of the nature of stress, beliefs about stress, current research, prevention, and coping strategies. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT279
Gender Interaction in Treatment
This course examines gender communication and research that has been done on the subject. BoK: SS., HU. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.  
Treatment

18TRMT281
Native American Culture and Treatment Applications
Introduces students to Native American cultures by reviewing literature and cultural practices as they relate to treatment. BoK: DC., LT. Credit Level: U. Credit Hrs: 3.00

18TRMT283
Understanding the Intervention of Batterers
The purpose of this course is to introduce the student to the theoretical aspect of understanding batterer intervention, including an historical overview of the intervention movement, theories related to intervention approaches, goals of batterer intervention, current trends, and setting up a comprehensive and effective batterer program. Students will become aware that "intervention of batterers" takes specific skills and knowledge beyond "general" intervention. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT310
Child Abuse I
This course will consider the public system's response to children at risk. The focus will be upon remedies, both for children who engage in delinquent behavior and for families who put children at risk of abuse or neglect. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT311
Child Abuse II
This course will follow Child Abuse I as a more in-depth discussion of child abuse and neglect topics. This course will go beyond an identification as discussed in Child Abuse I to evaluation of child abuse, neglect, and treatment. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT312
Dynamics of Victimization
The purpose of this course is to introduce the student to the dynamics of victimization. The student will learn some history of violence and oppression and the correlation between the two. The different types of abuse, the cycle of violence, and cultural reactions to abuse will be introduced to the student. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT313
Treating the Sexual Abuser
The purpose of this course is to introduce the student to the parameters of services available in terms of treating the sexual offender. The student will learn the essential components of the therapeutic repertoire of skills including theoretical models of behavior, assessment, differential diagnoses, cognitive orientations, behavioral management, and relapse prevention. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT314
Treatment Issues/Strategies with Domestic Violence
The purpose of this course is to introduce the student to the counseling, assessment, and treatment strategies with victims of domestic violence. Students will also gain knowledge of the characteristic behaviors of the victims of domestic violence and of developing treatment plans, and gain familiarity with varied forms of domestic violence and the essential need to correlate treatment strategies with these respective forms. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT315
Assessment and Treatment Strategies with Batterers
The goal of this course is to help students develop the necessary skills for assessing and co-facilitating batterer intervention groups. This course is vital to understanding and developing safe intervention strategies that will end the violence toward intimate partners. The course will include guest speakers from the domestic violence field, video tapes, and lecture/discussion. Students will also be required to role-play as co-facilitators and group members. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT316
Abnormal Behavior I
This class introduces undergraduate and graduate students to the

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College of Education, Criminal Justice, and Human Services

Treatment

18TRMT316
Abnormal Behavior I
Growing literature linking biology to social development in general and to criminal behavior specifically. Special attention is paid to behavior genetics and the heritability of traits, brain functioning and growth, and functions of neurotransmitters. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT317
Abnormal Behavior II
Continuation of 18TRMT316. Prereq: 18TRMT316. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT318
Abnormal Behavior III
Continuation of 18TRMT316 & 317. Prereq: 18TRMT316, 18TRMT317. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT322
Domestic Violence and the Law
This course was developed to provide students with essential legal information as it relates to federal, state, and local laws; and the associated legal processes that are involved with stalking and domestic violence. This is an essential course for those students working with both perpetrators and victims of domestic violence. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT361
Grief: Death and Dying
This course provides skills to enable the social worker to assist family members and others to cope with death and dying. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT385
Single Parent Families
Reality will be separated from myth of the single parent family - the fastest growing American family form. Offered alternate years. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT394
Introduction to DSM IV
This course will introduce undergraduate social workers and other human service workers to the basic concepts of psychopathology and to the Diagnostic and Statistical Manual IV of the American Psychiatric Association, used in the assessment of mental disorders. The course will include a focus on the influences of human diversity in a psycho/social assessment. BoK: SS. Credit Level: U. Credit Hrs: 3.00

18TRMT411
Child Sexual Abuse
This course will provide an introduction to and overview of general and specific issues related to child sexual abuse. Emphasis will be given to the impact of culture on issues of sexual abuse. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT415
Childhood Trauma and Recovery
This course will explore the "costs" of traumatic abuse to the individual, family, community, and society. While examining the enormous impact of abuse on one's self-concept and interpersonal relationships, the course will also emphasize stages of recovery throughout the lifespan. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT421
Child Abuse Prevention Strategies for Educators
This course will provide information and strategies to utilize in the identification, intervention, and prevention of child abuse. This course will also meet the requirements of Ohio House Bill 55, required of all elementary school staff, and a certificate for such can be provided. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

18TRMT429
Counseling the Sexual Abuser
Introduces the student to the parameters of services available in terms

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H=University Honors course.
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### Counseling the Sexual Abuser

18TRMT429

Treatment of treating the sexual offender. Students will learn essential components of the therapeutic repertoire of skills, including theoretical models of behavior, assessment, differential diagnoses, cognitive orientations, behavioral management, and relapse prevention. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

### Children’s Rights

18TRMT571

Children’s Rights

Emerging rights of children, from the US Supreme Court landmark decision of In Re Gault in 1967 to the present. Changing precepts of the rights of children; rights of parents; and the interest of the State regarding delinquency, ungovernability, corporal punishment, abortion, contraception, commitment to mental health facilities, termination of parental rights, support, and emancipation. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

### Children’s Rights II

18TRMT572

Children's Rights II

Children's Rights II will consider the public system's response to children at risk. The focus will be upon remedies, both for children who engage in delinquent behavior and for families who put children at risk of abuse or neglect. BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

### Urban Educational Leadership

18UELE001

Professional Seminar in Urban Educational Leadership

This course is limited to first year doctoral students in Urban Educational Leadership for whom it is required as preparation for meeting program requirements. Credit Level: G. Credit Hrs: 3.00

18UELE002

Professional Seminar in Urban Educational Leadership

This course is limited to first year doctoral students in Urban Educational Leadership for whom it is required as preparation for meeting program requirements. Credit Level: G. Credit Hrs: 3.00

18UELE71

Individual Study in Urban Educational Leadership

Supervised individual study of selected issues in urban educational leadership. By contract with faculty member. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

18UELE76

Special Topics in Urban Education Leadership

Seminar on selected issues in urban educational leadership. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-3.00

18UELE77

Practicum in Urban Education Leadership

Supervised practicum designed to allow students to examine selected leadership issues in urban educational schools and communities. By contract with faculty member. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

18UELE79

Leadership in P-16 Partnerships

Seminar examining how the quality of student learning and achievement in urban schools can be enabled through strong, sustaining, and systemic partnerships involving key institutions across the community. Credit Level: G. Credit Hrs: 3.00

18UELE01

Theoretical Foundations of Urban Education Leadership

Cohort seminar designed to introduce students to the theoretical frameworks and research practices surrounding urban educational leadership issues. Credit Level: G. Credit Hrs: 3.00

18UELE12

UEL Seminar: Leading Urban Educational Organizations through Change

Theoretical frameworks used by education leaders to foster change in urban educational organizations. Credit Level: G. Credit Hrs: 3.00

18UELE13

Leading, Learning, and Teaching in Urban Communities

Cohort seminar designed to introduce students to the processes used by educational leaders to facilitate effective learning and teaching in urban educational organizations. Credit Level: G. Credit Hrs: 3.00

18UELE14

Social, Political, Economic, and Legal Contexts of Urban Educational Leadership

Cohort seminar designed to introduce students to the various social, political, economic, and legal contexts surrounding the practice of urban educational leadership. Credit Level: G. Credit Hrs: 3.00

18UELE930

Internship Development

Course provides students with guidance in the development and location of mentored Internships. Credit Level: G. Credit Hrs: 3.00

18UELE931

Internship I

First in a two-course sequence of mentored Internships designed to give students opportunities to practice and develop leadership skills in urban school and community settings. Credit Level: G. Credit Hrs: 3.00

18UELE932

Internship II

Second in a two-course sequence of mentored Internships designed to give students opportunities to practice and develop leadership skills in urban school and community settings. Prereq: 18UELE931. Credit Level: G. Credit Hrs: 3.00

18UELE973

Individual Dissertation Guidance

Individual guidance in doctoral dissertation research. Hours and credits to be arranged. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-15.00

H=University Honors course.

COLLEGE OF ENGINEERING
COURSE DESCRIPTIONS
Aerospace Engineering & Engineering Mechanics

20AEEM100 Introduction to Aerospace Engineering
Introduction to college staff and organizations. Small group work by major, including ethics, the co-op program, and a team project in creative problem solving. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20AEEM101 Mechanics I

20AEEM102 Mechanics II

20AEEM103 Mechanics III
Centroids, center of gravity. Study of motion and the relationship between force, mass and acceleration for rigid bodies. Lecture. (Formerly 20ENFD103) Prereq: 20AEEM102. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20AEEM110 Introduction to Aircraft Engineering
History of Aviation. Topical case studies from trade and technical publications. Aeronautical terminology. Role of disciplines and their interrelations. Role and importance of basic sciences and mathematics. Design, fabricate, and test a flying wing. Prereq: 20AEEM100. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20AEEM111 Introduction to Spacecraft Engineering
Development of the fundamental concepts of spaceflight mechanics. Applications to Earth-orbiting spacecraft. Prereq: 20AEEM100. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20AEEM120 Introduction to Engineering Mechanics I
Interdisciplinary nature of engineering mechanics. Role of sub disciplines and their interrelation. Roles and importance of basic sciences and mathematics to engineering mechanics roles of theoretical and experimental methods. Case studies from trade publications. Role of professional societies. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20AEEM121 Introduction to Engineering Mechanics II

20AEEM211 Basic Integrated Engineering
Elementary design concepts, team problem-solving, optimization of fundamental engineering problems, and oral and written communication skills. Prereq: 20ENFD112, 20ENFD101, 15MATH253, 15PHYS201. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM212 Probabilistic Engineering
Probability and statistics for design and reliability, design case studies, and continuation of engineering design experience from Basic Integrated Engineering. Prereq: 20AEEM211, 15MATH254, BoK: QR. Credit Level: U. Credit Hrs: 3.00

Aerospace Engineering & Engineering Mechanics

20AEEM361
Integrated Aircraft Engineering
Students will learn aircraft spacecraft and propulsion system nomenclature. Students will develop an appreciation for aerospace vehicles and propulsion systems through case studies of or in response to previous preliminary design efforts or via case studies from AIAA or aerospace contractors. Students will work in small groups on several aspects of a component or subsystem design on several aspects of a component or subsystem design of an aerospace vehicle or propulsion system component. Prereq: 15MATH254, 15MATH273, 20ENFD103.
BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM371
Integrated Engineering Mechanics I
This course focuses on the application of engineering analysis techniques learned in other courses to the analysis of individual components that comprise a larger system. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM382
Aerospace Vehicle Performance
Development of equations for vehicle motion. Performance of aircraft and rockets in the atmosphere and in space. Prereq: 20ENFD102, 15MATH273, 20AEEM342. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20AEEM383
Basic Fluid Mechanics
Physical nature of fluids, statics. Conservation principles and their applications to engineering problems. Dimensional analysis, duct flow of real fluids. (Formerly 20ENFD383) Prereq: 15MATH273, 15MATH254, 20AEEM101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20AEEM403
Fundamentals of Control Theory
Fundamentals of feedback control system modeling, transfer functions, root locus and frequency response methods. Prereq: 15MATH273, 20AEEM313. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM430
Matrix Structural Analysis
Computer oriented methods for solving determinate and indeterminate structures with emphasis on trusses, frames and beams; extensive static analysis using the force-displacement method; dynamic response of bar and beam elements using lumped and consistent mass matrices. Prereq: 20AEEM352, 20ENFD375. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20AEEM438
Solid Mechanics Laboratory

20AEEM445
Gas Dynamics
Equations of one- and two-dimensional gas motion. Speed of sound, normal and oblique shock waves, expansion wave theory. Applications are presented for diffusers and nozzles, wind tunnel design, jetexhausts and airfoils. Prereq: 15MATH254, 15MATH276, 20ENFD382, 20ENFD383, 20AEEM342. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20AEEM452
Flight Mechanics

20AEEM456
Applied Aerodynamics
Theory and application of a vortex lattice code, introduction to the concept of a viscous flow, presentation of the Navier-Stokes and boundary layer equations, theory and application of 2D boundary layer code, introduction to turbulence modeling and application for boundary layers. Prereq: 20AEEM342, 20AEEM445, 20AEEM360, 20ENFD383.
## Aerospace Engineering & Engineering Mechanics

**20AEEM504**  
**Special Topics**  
See 20AEEM503. Win. qtr. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

**20AEEM505**  
**Special Topics**  
See 20AEEM503. Spr. qtr. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

**20AEEM506**  
**Special Topics**  
See 20AEEM503. Sum. qtr. Perm of Department. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

**20AEEM509**  
**Computational Aerodynamics**  
Numerical flow visualization. 2-D panel methods. Axisymmetric panel methods. Vortex lattice method and 3-D panel methods. Basic concepts of finite differences. Finite difference solutions of 2-D potential equation. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

**20AEEM512**  
**Aircraft Design II**  

**20AEEM513**  
**Advanced Aerospace Design**  
Advanced design primarily for students participating in AIAA Design Competition. Prereq: 20AEEM512, 20AEEM517, 20AEEM523. BoK: NA. Credit Level: U. Credit Hrs: 3.00

**20AEEM515**  
**Spacecraft Design I**  
Introduction to space mission analysis and the principles of spacecraft design, space mission life cycle, mission constraints and objectives; cost estimation. Prereq: 20AEEM403, 20AEEM462. BoK: QR. Credit Level: U. Credit Hrs: 4.00

**20AEEM517**  
**Spacecraft Design II**  

**20AEEM519**  
**Engine Design I**  

**20AEEM523**  
**Engine Design II**  

**20AEEM525**  
**Advanced Strength of Materials**  
This course builds on the stress analysis and structures courses taken in an undergraduate engineering curriculum. It is mathematically oriented, but less so than a theory of elasticity approach. Theory and problems in failure, spinning disks, torsion and bending will be emphasized. Prereq: 20AEEM333, 20AEEM334. BoK: NS. Credit Level: U. Credit Hrs: 3.00

**20AEEM527**  
**Continuum Mechanics**  
Concepts of a continuous medium, Cartesian tensor analysis, deformation measures, stress, constitutive equations for solids and fluids, field equations, example problems. BoK: NS. Credit Level: U. Credit Hrs: 3.00

**20AEEM529**  
**Nondestructive Testing**  
Basic nondestructive materials testing methods; ultrasonic inspection, acoustic emission, eddy-current inspection, radiographic testing, magnetic techniques. BoK: NS. Credit Level: U. Credit Hrs: 3.00

**20AEEM530**  
**Computational Fluid Dynamics**  
Calculation of 2D and 3D flows using commercial CFD software. BoK: QR. Credit Level: U. Credit Hrs: 3.00

**20AEEM535**  
**Undergraduate Research**  
Individual research topics under the supervision of department faculty in conjunction with the ACCEND program. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-9.00

**20AEEM536**  
**Undergraduate Research (Winter)**  
Individual research topics under the supervision of department faculty in conjunction with the ACCEND program. Winter quarter. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-9.00

**20AEEM537**  
**Undergraduate Research (Spring)**  
Individual research topics under the supervision of department faculty in conjunction with the ACCEND program. Spring quarter. Perm of Instructor. BoK: QR. Credit Level: U. Credit Hrs: 1.00-9.00

**20AEEM574**  
**Aerodynamic Measurement Laboratory**  

**20AEEM575**  
**Propulsion and Gas Dynamics Laboratory**  

**20AEEM576**  
**Rocket Propulsion**  

**20AEEM581**  
**Engineering Mechanics Design I**  
Integrating the fundamental principles of engineering in the design of a variety of engineering components or systems. This course will focus on preliminary designs and the selection of the design that will be pursued in the second quarter. BoK: NA. Credit Level: U. Credit Hrs: 4.00

**20AEEM582**  
**Engineering Mechanics Design II**  
Integrating the fundamental principles of engineering in the design of a variety of engineering components or systems. This course is a

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**H**=University Honors course.  
Aerospace Engineering & Engineering Mechanics

20AEEM582 Engineering Mechanics Design II
continuation of Engineering Mechanics Design I and will conclude with a formal design presenta¬ tion and the submission of a final design report. Prereq: 20AEEM581. BoK: NA. Credit Level: U. Credit Hrs: 4.00

20AEEM593 Control Theory II
Control system design and compensation. Introduction to modern systems theory. Experimenta¬ tion in systems identification and control. 2 lec., 1 lab. Prereq: 20AEEM403. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20AEEM597 Composite Structures

20AEEM603 Analytical Dynamics I
Kinematics, particle dynamics, energy methods, constrained dynamical systems, simulations and advanced dynamics techniques. 3 lec. Prereq: 20MATH273. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM604 Analytical Dynamics II
Rigid body mechanics, gyrodynamics, energy methods, quaternions, linear system theory, stability of motion, foquet theory and simulations. 3 lec. Prereq: 20AEEM603. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM605 Ligament and Tendon Biomechanics
The correlation of mechanical properties and tissue microstructure. Emphasis on the properties of tissue attachments to muscle and bone. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM607 Viscoelasticity of Biological Materials
Phenomenological and structural constitutive and failure modeling of biological materials including ligament, tendon, cartilage and bone tissues. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM609 Current Topics in Bioengineering
Presentation of research on five bioengineering topics by Medicine/Engineering faculty teams. Student research on the topic of their choice, culminating in a term report. Final exam covering the faculty presentations. 3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20AEEM610 Probability and Random Processes for Engineers
Introduction to fundamentals of probability and random processes with engineering emphasis. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM614 Fundamentals of Control Theory
A fundamental look at control system stability, performance and robustness of SISO and MIMO systems. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM616 Kinematics of Biological Joints
Analysis of biological joints in terms of degrees of freedom, instant center, screw axis and Euler angles. Compatibility requirements between joint geometry, ligament attachment location, and joint motion. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM619 Elasticity

20AEEM620 Aeroelasticity Fundamentals
Static and dynamic response of flexible aircraft to aerodynamic inertia and structure forces: life effectiveness, load distribution divergence, control surface effectiveness, controveresial, flutter, gust response. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM625 Boundary Layer Methods I

20AEEM627 Introduction to Biomechanics
Basic concepts and methods in application of engineering mechanics principles in the medical and life sciences. (Co-listed as 20-263-685). 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM628 Biomechanics Instrumentation
Development of skills in using testing equipment and data acquisition methods in biomechanics research. Prereq.: Experimental Structures Lab. 2 lec., 3 lab. Prereq: 20AEEM334. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20AEEM636 Spacecraft Dynamics

20AEEM641 Introduction to Compressible Flow
Integral and differential equations for unsteady, inviscid flow; shocks, expansion waves, acoustic theory, steady linearized flow; method of characteristics. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM645 Combustion Theory I
Examination of the fluid mechanics of reacting flows. Thermodynamics of mixtures, chemical kinetics, conservation equations for reacting flows, combustion waves and nozzle flow. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM646 Combustion Theory II
See 20-251-645. 3 lec. Prereq: 20AEEM645. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM655 Chemical and Nuclear Rocket Propulsion
Fundamentals, thermodynamic relationships and design parameters for liquid- and solid-propellant rocket engines. Physics of nuclear processes and reactions. Application of nuclear energy in rockets and other space vehicles. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM657 Electrical Propulsion and Energy Conversion Systems
Electromagnetic theory, performance of electric propulsion systems and energy conversion systems. 3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00
Aerospace Engineering & Engineering Mechanics

20AEEM659
Hypersonic Flow
Normal and oblique shock waves; high temperature gas effects; computer simulation of hypersonic flows; introduction to rarefied gas dynamics. Prereq: 20AEEM445. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20AEEM661
Experimental Methods in Fluid Mechanics

20AEEM670
Introduction to Ideal Fluids
The governing equations for motion of ideal fluids. The stream function and velocity potential. Vorticity, circulation and lift. Method of singularities. 3 lec. Prereq: 20MATH376. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20AEEM672
Finite Element Techniques I

20AEEM673
Finite Element Techniques II
Energy principles. Displacement-based finite element analysis of linear elastic planar continua. Linear and quadratic elements, isoparametric coordinates. 3 lec. Prereq: 20AEEM672. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM674
Finite Element Techniques III
Further topics in finite element analysis of planar elasticity problems; modal analysis; selected topics in linear F.E.T. 3 lec. Prereq: 20AEEM673. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM675
Heat Transfer

20AEEM676
Heat Transfer for Propulsion System
Methods for analysis of thermal and velocity boundary layers, convective heat transfer in turbulent flow, heat exchanger analysis and design. 3 lec. Prereq: 20AEEM675, 20ENFD385. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM677
Heat Transfer and Aerodynamic Heating
Convective heat transfer in supersonic flow mass transfer cooling, ablation, and re-entry heat transfer. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM680
Introduction to Random Vibrations
Analysis of deterministic systems subject to probabilistic excitations. Introduction to fatigue. 3 lec. Prereq: 20AEEM610. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM681
Mechanics of Structures I
Principle of virtual displacements. Applications to statically indeterminate structures. Castigliano’s theorems. 3 lec. Prereq: 20AEEM452. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

Aerospace Engineering & Engineering Mechanics

20AEEM682
Mechanics of Structures II
Minimum principles. Applications to statically indeterminate structures and buckling problems. 3 lec. Prereq: 20AEEM681. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM687
Properties of Structural Materials
Introduction to mechanical and physical properties of crystals, polycrystalline metals, polymers, composites and ceramics used in aerospace structures. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM689
Life Prediction Methods
Stress life and strain life models, fracture, notches, cumulative damage models, multiaxial life models, comparison of approaches. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM690
Static Optimization
Analytical and numerical methods for optimization of functions and functionals. Gradient and direct search methods. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM691
Variational Optimization
Variational methods for the optimization of constrained functions and functionals. Solution of two-point boundary value problems in controls and mechanics. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM693
Advanced Flight Mechanics
Equations of aircraft motion and their simplification. Autopilot and flight control design by classical and modern control methods. 3 lec. Prereq: 20AEEM452. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM694
Introduction to Nonlinear Vibrations
Perturbation methods, free and forced response of nonlinear systems, resonance, regular and chaotic motions, numerical simulations and analysis. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM695
Orbital Mechanics I
Two- and three-body problems. Orbit transfer and rendezvous. Orbit perturbations and analysis. Artificial satellite theory. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM696
Turbo machinery and Rocket Engine Design
Introduction to the analysis and design of compressors, turbines and rocket engines. 3 lec. Prereq: 20AEEM674. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20AEEM697
Composite Structures
Concepts of mechanical and thermal behavior of composite structures. Effective properties, stiffness, and strength. Applications to engineering components. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20AEEM700
Tissue Biomechanics
Examination of properties and mechanical behavior of the structures, soft tissue, and organs of biosystems. (Co-listed with 20-263-686. Additional work beyond 686 will be assigned.) 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM706
Biosynthetic Composites
Examination of the mechanical and structural properties of synthetic materials used as replacements for biological structures. 3 lec. Credit Level: G. Credit Hrs: 3.00
20AEEM708 Research Methods in Aerospace Engineering and Engineering Mechanics
Elements of scientific investigation; problem definition, experiments, use of hypotheses, the roles of chance, imagination, reason and strategy. Credit Level: G. Credit Hrs: 3.00

20AEEM711 Multivariable Control
Matrix fraction description of multivariable systems. Frequency domain effects of state feedback. Singular values and robustness of controllers. 3 lec. Prereq: 20AEEM615. Credit Level: G. Credit Hrs: 3.00

20AEEM713 Linear Quadratic Control
The theory and application of linear quadratic optimal control; optimal filtering; the LQG optimization problem. 3 lect. Prereq: 20EGFD615. Credit Level: G. Credit Hrs: 3.00

20AEEM714 Analytical and Structural Vibrations I
Lagrange’s equations. Free and forced vibrations of discrete systems. Exact and approximate methods. Computer applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM715 Analytical and Structural Vibrations II
Free and forced vibrations of continuous systems. Exact and approximate methods. Computer applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM718 Dynamics and Controls of Flexible Structures
Modeling of flexible structures. Controllability and observability versus sensor and actuator location. Model reduction: modal and balanced. State feedback. Dissipative controllers and stability robustness. High-Authority/Low-Authority Control. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM721 Inelastic I
Introduction to the concepts of inelastic material behavior. Yield surface methods of analysis and application of classical viscoelasticity. Application to high temperature metals. 3 lec. Prereq: 20AEEM619. Credit Level: G. Credit Hrs: 3.00

20AEEM722 Inelastic II
Introduction to the concepts of inelastic modeling using state variable methods of analysis. Application to high temperature metals. 3lec. Prereq: 20AEEM619. Credit Level: G. Credit Hrs: 3.00

20AEEM723 Experimental Stress Analysis I
Theory, experiments. Strain gages, photoelasticity. Moire technique. Transducers. Brittle lacquers. 2 lec., 3 lab. Credit Level: G. Credit Hrs: 3.00

20AEEM725 Nonlinear Finite Element Methods
General methods of nonlinear analysis with applications to inelastic material response. Prereq: 20AEEM672. Credit Level: G. Credit Hrs: 3.00

20AEEM727 Nondestructive Testing
To familiarize the student with the fundamental principles of nondestructive materials characterization and to introduce them to the most important engineering applications of nondestructive testing. This course covers the basics of non-destructive testing methods with special emphasis paid to ultrasonic, eddy-current and radiographic inspections. Prereq: 20AEEM601. Credit Level: G. Credit Hrs: 3.00

20AEEM728 Introduction to Ultrasonecs
Ultrasonic wave propagation. Basic phenomena: dispersion, attenuation, reflection, transmission, diffraction, scattering. Ultrasonic measurements. Credit Level: G. Credit Hrs: 3.00

20AEEM729 Ultrasonic Nondestructive Evaluation
This course gives introduction to Ultrasonic Non-destructive Evaluation. Included in this course are fundamentals of elastic wave propagation in solid materials, basic types of wave material interaction with plane boundaries between different materials, scattering from discontinuities, defect detection and characterization, principles and techniques of generation and detection and characterization, principles and techniques of generation and detection of ultrasonic waves, ultrasonic NDE instrumentation and basic ultrasonic measurements for materials characterization. Prereq: 20AEEM728. Credit Level: G. Credit Hrs: 3.00

20AEEM730 Physical Gas Dynamics
Study of dynamics of gases, atomic and molecular considerations, kinetic theory, Boltzmann equation, rarefied gas flows. 3 lec. Prereq: 20AEEM445. Credit Level: G. Credit Hrs: 3.00

20AEEM731 Body Aerodynamics
Subsonic lifting surface theory; supersonic wing theory, conical flow phenomena, and slender-body theory. 3 lec. Prereq: 20AEEM445. Credit Level: G. Credit Hrs: 3.00

20AEEM732 Introduction to Numerical Methods in Fluid Mechanics
Explicit and implicit methods for ordinary differential equations, parabolic and hyperbolic partial differential equations, the method of characteristics, relaxation and alternating direction methods for elliptic equations, application to fluid mechanics. Credit Level: G. Credit Hrs: 3.00

20AEEM733 Boundary Layer Methods II
Introduction to stability theory. Turbulence models, interacting boundary layer theory. Solution methods. 3 lec. Prereq: 20AEEM625. Credit Level: G. Credit Hrs: 3.00

20AEEM740 Aerothermochemistry
Review of classical thermodynamics. Chemical thermodynamics, elements of quantum mechanics, statistical mechanics, Fermi-Dirac and Bose-Einstein statistics, reaction kinetics. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM741 High Temperature Gas Dynamics

20AEEM750 Turbomachinery Flow
This course emphasizes the fluid dynamics unique to turbomachinery. Computational Fluid Dynamics (CFD) has seen an explosive growth as a design and analysis tool for turbomachinery. This course provides a bridge between the traditional analytical and recent computational solution. Credit Level: G. Credit Hrs: 3.00

20AEEM761 Special Topics -- Graduate
Newly-offered topics in Aer. Eng. or Eng. Mech. presented in a lecture/recitation format. Aut. qtr. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM762 Special Topics Graduate
SPEC TOP GRADUATE Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Aerospace Engineering & Engineering Mechanics

20AEEM762
Special Topics Graduate
SPEC TOP GRADUATE Credit Level: G. Credit Hrs: 3.00

20AEEM763
Special Topics -- Graduate
See 20-251-761. Spr. qtr. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM764
Special Topics -- Graduate
See 20-251-761. Sum. qtr. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM776
Theory of Structural Stability
Various stability methods and their applicability. Bifurcational and limit point instability. Applications to models, columns, frames and plates. Initial geometric imperfections. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM792
Stochastic Optimization
Introduction to stochastic search techniques: genetic algorithms, simulated annealing, neural networks. Applications to engineering problems. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM795
Orbital Mechanics II
Fundamental and advanced methods for investigating the motion of artificial satellites. Two body problem, physical perturbations, Gauss and Lagrange planetary equations, canonical perturbation methods, numerical methods, resonant orbits. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM796
Introduction to Intelligent Control
An introduction to theories and applications of control systems having planning, learning, identifying and corrective capabilities. 3 lec. Credit Level: G. Credit Hrs: 3.00

20AEEM811
Fundamentals of Adaptive Control I
Fundamentals of adaptive control emphasizing stability-based methods. Readings and research in contemporary adaptive literature. 3 lec. Prereq: 20AEEM814. Credit Level: G. Credit Hrs: 3.00

20AEEM812
Fundamentals of Adaptive Control II
See 20-251-811. 3 lec. Prereq: 20AEEM811. Credit Level: G. Credit Hrs: 3.00

20AEEM813
Fundamentals of Microprocessor Control I
Fundamental and state variable methods in design of digital systems. Microprocessor implementation including A/D-D/A conversion, interrupts, processor characteristics. 3 lec. Prereq: 20AEEM814. Credit Level: G. Credit Hrs: 2.00-3.00

20AEEM820
Thermal Stress I
Steady state and transient conditions. Exact and approximate methods. Thermal shock and applications. 3 lec. Prereq: 20AEEM683. Credit Level: G. Credit Hrs: 3.00

20AEEM831
Viscous Flow
Review of tensor analysis. Derivation of the Navier-Stokes equations in integral and differential form for a compressible fluid mixture of perfect gases. Vorticity transport and Poisson equations. Exact and approximate methods for the solution of Navier-Stokes equations. 3 lec. Prereq: 20AEEM670. Credit Level: G. Credit Hrs: 3.00

20AEEM835
Dynamics of Compressible Flow I
Method of Characteristics for rotational flow. Shock expansion method. Introduction to hypersonic flow. Small perturbation theory for transonic AEROSPACE ENGINEERING & ENGINEERING MECHANICS Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Aerospace Engineering & Engineering Mechanics

20AEE972  Aerospace Engineering and Engineering Mechanics Seminar
Seminar lectures throughout the year by staff and invited speakers from academic, researchand industrial institutions on current aerospace engineering and engineering mechanics problems. Register one qtr. only. Credit Level: G. Credit Hrs: 1.00

20AEE974  Reading Course
Directed individual study in aerospace engineering and engineering mechanics. Credit Level: G. Credit Hrs: 1.00-15.00

Biomedical Engineering

20BME101  Introduction to Biomedical Engineering I
Overview of BME at UC, career opportunities, learning resources, engineering design, creative problem solving, and ethics BoK: NA. Credit Level: U. Credit Hrs: 1.00

20BME102  Introduction to Biomedical Engineering II
This course provides an overview of biomedical engineering research careers and current BME research at the University of Cincinnati. Prereq: 20BME101. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20BME103  Introduction to Biomedical Engineering III
Use of technology in clinical settings including patient monitoring, diagnostic laboratories, and surgical suites. Prereq: 20BME102. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20BME110  BME in the Clinical Environment
Use of technology in clinical settings including patient monitoring, diagnostic laboratories, and surgical suites. Prereq: 20BME101. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20BME150  Medical Device Dissection

20BME210  BME in the Clinical Environment
An overview of the field of biomedical engineering with special emphasis on the use of technology in clinical settings, including patient monitoring, surgical suites, diagnostic laboratories, and imaging structures and activities in the body. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20BME220  Introduction to Human Body Dynamics
Study of the relationships between forces, moments, mass, and acceleration for human body and body segment motions. Centroids, center of mass, mass moment of inertia, and relative motion. Prereq: 20ENFD101, 20ENFD102. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME230  Introduction to Medical Product Design
Exploration of the health care delivery environment, its unique culture, and the impact this has on medical product design. Course will include field trips to medical sites and medical product manufacturers. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 3.00

20BME250  Medical Device Dissection

Biomedical Engineering

20BME305  Modeling and Analysis of Systems
Modeling and Analysis of electrical, mechanical, fluid and thermal systems using LAPLACE transforms and state space methods. Time response and second order systems. Solution of model equations with MATLAB. Prereq: 20ENFD111, 15MATH273. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME306  Modeling and Analysis of Systems

20BME310  Bioinstrumentation
Introduction to measurement of biological signals using computer data acquisition systems. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME320  Biocontrols
Fundamentals of feedback control system modeling, transfer functions, root locus and frequency response methods as applied to biological systems. Prereq: 20MATH273. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME350  Medical Product Design I
This course is an applied engineering design course covering engineering design process, user-centered design, design decision making, concept generation, creative thinking, competitive analysis and benchmarking, and FDA design control. Students will be asked to create engineering design specifications and generate multiple solutions. Prereq: 20BME250, 20ENFD112. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20BME410  Biomaterials
Response of the body to implanted materials. Emphasis on polymers and common metals used in orthopaedic and tissue engineering applications. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20BME420  Controls in Biomedical Engineering
Controls in BME presents control theory and its application to the design of medical devices and the analysis of physiological systems. Topics include electromechanical system transfer functions, state space representation, analysis and design of feedback systems, steady state errors, stability determination, design of compensators, and frequency response techniques. Prereq: 20BME305, 20BME310. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME450  Medical Product Design II
This course is an applied engineering design course covering engineering analysis, detailed design development, and systems thinking. An emphasis is placed on sustainable design considerations for material selection and manufacturing methods. FDA design verification and validation, risk analysis and FMEA are also explored. Prereq: 20ENFD112, 20BME350. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20BME455  Multidisciplinary Medical Device Development
Exploration of the health care delivery environment, its unique culture, and the impact this has on medical product design. This multidisciplinary teaming experience provides a foundation for...
Biomedical Engineering

20BME455  
Multidisciplinary Medical Device Development  
continuation in the Medical Device Innovation and Entrepreneurship Program. Course will include field trips and industry expert presentations from multiple disciplines. Prereq: 20BME250. BoK: SS. Credit Level: U. Credit Hrs: 3.00

20BME501  
Medical Device Innovation I  
This is the first course of a capstone design sequence for biomedical engineering students. Students are presented with a clinical problem and are expected to conceive, design, prototype and evaluate devices for innovative solutions. Innovation I emphasizes information gathering, establishing requirements, concept development & evaluation. Students from other disciplines, particularly industrial design and business, are encouraged to enroll Perm of Instructor. BoK: QR, SE. Credit Level: U. Credit Hrs: 3.00-9.00

20BME502  
Medical Device Innovation II  
This is the second course in the design capstone sequence for biomedical engineering students. Students are presented with a clinical problem and are expected to conceive, design, prototype and evaluate devices for innovative solutions. Innovation II focuses on the detailed design, prototyping and evaluation of the concept selected in Innovation I. Students from other disciplines, particularly industrial design and business, are encouraged to enroll. Individual assignments that build on the students discipline will be developed Perm of Instructor. BoK: QR, SE. Credit Level: U. Credit Hrs: 3.00-9.00

20BME503  
Business Development in Medical Device Innovation  
This course focuses on understanding the translation of technology into business opportunity. Issue and challenges of entrepreneurship will be explored including the topics: the identification, selection, description and communication of an opportunity which has potential to become a successful venture. Students from Biomedical Engineering, Industrial Design and Business are encouraged to participate. BoK: NA. Credit Level: U. Credit Hrs: 3.00-6.00

20BME505  
Experimental Research Capstone I  
This course will teach students how to design and conduct a pilot study involving human subjects. The course will include development of a hypothesis, design of the experimental protocol to test the hypothesis, and learning ethical aspects of human research. Prereq: 20BME310. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20BME506  
Experimental Research Capstone II  
This course will provide the students with an opportunity to conduct a pilot study involving human subjects, using equipment and environment of a physiology lab. The course will include carrying out a previously developed experimental protocol, data analysis and interpretation, statistical analysis and writing of a manuscript. Prereq: 20BME505. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20BME510  
Independent Study in Medical Imaging  
Individual study of a medical imaging topic selected in consultation with a faculty member Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

20BME520  
Independent Study in Biomechanics  
Individual study of a biomechanics topic selected in consultation with a faculty member Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

20BME521  
Tissue Mechanics Lab  
Methods of measuring the mechanical properties of biological tissues BoK: NA. Credit Level: U. Credit Hrs: 1.00-2.00

Biomedical Engineering

20BME524  
Human Motion Lab  
Methods of measuring human motion including ground reaction forces, body segment motion, and muscle emg. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20BME530  
Independent Study in Tissue Engineering  
Individual study of a tissue engineering topic selected in consultation with a faculty member Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

20BME540  
Independent Study in Bioinformatics  
Individual study of a bioinformatics topic selected in consultation with a faculty member Perm of Instructor. BoK: NS. Credit Level: U. Credit Hrs: 1.00-6.00

20BME550  
Independent Study Design and Manufacturing  
Individual study of design and manufacturing in consultation with a faculty member. Perm of Instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-3.00

20BME590  
Special Projects in Biomedical Engineering  
This course is a special projects course to be arranged between the student and the instructor. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

20BME601  
BME Survey  
Survey of biomedical engineering research topics. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20BME602  
Bioinstrumentation  
An overview of biomedical instrumentation, design and operation of transducer and measurement systems used in medicine and biology. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME610  
Imaging with Ionizing Radiation  
The physics and instrumentation of diagnostic radiology with x-rays, computed tomography, and radioisotope imaging Prereq: 15MATH553. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME611  
Imaging Without Ionizing Radiation  
The physics and instrumentation of diagnostic ultrasound, magnetic resonance imaging (MRI), functional MR and MR spectroscopy Prereq: 20BME610, 15MATH553. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME612  
Biomedical Signal and Image Processing  
Fundamentals of signal and image processing, Fourier analysis, and stochastic processes, with emphasis on biomedical applications. Filtering transformation and feature extraction for biomedical signals and images. Prereq: 15MATH264. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME620  
Introduction to Biomechanics  
Basic concepts and methods in the application of engineering mechanics principles in the medical and life sciences (co-listed as 20MECH685). Prereq: 20ENFD103, 20MATH273. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME621  
Tissue Biomechanics  
Examination of the properties and mechanical behavior of the structures, soft tissues, and organ systems of biosystems (co-listed as 20MECH686) BoK: NS. Credit Level: U, G. Credit Hrs: 3.00
Biomedical Engineering

20BME622 Ligament and Tendon Biomechanics
The correlation of mechanical properties and tissue microstructure. Emphasis on the properties of tissue attachments to muscle and bone. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME623 Bone Biomechanics
Structure, mechanical properties, failure, and adaptation of long bones to mechanical stresses. Prereq: 20ENFD375, 15BIOL101. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME624 Joint Biomechanics
Mathematical description and analysis of the three dimensional motion of biological joints. Emphasis is on the human knee. Prereq: 20ENFD103, 20MATH276. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME625 Cell Mechanics
Structure and function of the cell cytoskeleton with an emphasis on the role of the actin filaments in cell locomotion and signal transduction. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME626 Biofluid Mechanics
Biofluid mechanics provides an intellectual framework for understanding the features of flow in organ systems, in health and disease. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20BME629 Special Topics in Biomechanics
In-depth study of biomechanics. Topics selected by the instructor. Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME630 Tissue Engineering
General principles of tissue engineering including aspects of cell isolation and propagation; matrix selection; construct creation, manipulation, and implantation; and evaluation of resulting repairs. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20BME631 Functional Tissue Engineering
Application of principles of tissue engineering for load-bearing tissue structures. Measuring and using in vivo forces and displacements as design criteria and mechanical stimulation signals to stiffen constructs in culture and to improve repair biomechanics and structure after surgery. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME639 Special Topics in Tissue Engineering
In-depth study of tissue engineering. Topics selected by the instructor. Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME640 Computational Genomics
Computational problems and algorithms in genome analysis (co-listed as 20CEES786). Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME641 Functional Genomics
This course deals with the experimental design and microarray processing and proteomics. Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME642 Mining and Analyzing Biomedical Free-Text Using Natural Language Processing
Generally, there are two types of data: transactional and free-text. Transactional data are structured and predominately represent current and past states. They measure some action, i.e. lab results measure a patient's chemical profile. Free-text, is unstructured and is a proxy for human thought. Free texts represent current and future states. Most efforts have focused on analysis of transactional data. More methods for analyzing free-text data have emerged. This course focuses on how to apply these methods to biomedical free-text. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME643 Introduction to Bioinformatics
Modeling aspects, biological motivation, problem formulation and solution as well as reference to bioinformatics tools. BoK: NS. Credit Level: G, U. Credit Hrs: 3.00

20BME649 Special Topics in Bioinformatics
In-depth study of bioinformatics. Topics selected by the instructor. Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20BME660 Mathematical Models in Physiology and Medicine
This course will introduce students to the use of computers and computer programming in the mathematical description of physiological and biological processes. Processes at all levels will be studied, including models of receptor-ligand binding, population dynamics, neural spike propagation, and infectious diseases. Students will also learn advanced techniques in curve fitting. Each student will have the opportunity to focus on an area of mathematical physiology or medicine of his or her interest. Prereq: 20ENFD112, 15MATH273. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME661 Biostatistics in Research
In this course a number of statistical methods will be presented to analyze various types of data stemming from research. A rudimentary knowledge of probability and inferential statics will be assumed. How to evaluate a diagnostic test will be dealt in depth. Analysis of contingency tables and loglinear models will be presented to answer a number of relevant research questions. A detailed presentation of logistic regression and rudiments of Survival Analysis will be presented. Presentation of current research from journals. Prereq: 15MATH361, 15MATH362. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME670 Advanced Topics in Biomaterials
Deals with advanced topics in current biomaterials research including the cell-material interface, molecular engineering of biomaterials, nanoscale biomaterials, hierarchically assembling materials, tissue engineering, protein peptide design, bioactive polymers, biomacromolecules, and surface science. It will be composed of both didactic and discussion/literature-based activities. Prereq: 20BME410. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME680 Nanotechnology and Nanomedicine
Course will cover nanotechnology concepts, principles, instrumentation, approaches and applications crossing the disciplines of chemistry, physics, optics, math, computations, molecular biology, biophysics, physical chemistry, materials, biomaterials as well as biochemistry of lipids, peptides, nucleotides, structures of RNA, DNA and proteins including the single molecules studies on nanomaterials. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20BME650 Biomedical Ultrasound I
This course will detail the physical properties of sound and the fundamental principles governing the generation, propagation, reflection, transmission, and reception of sound waves in fluids, and introduce some medical applications. Credit Level: G. Credit Hrs: 3.00

Biomedical Engineering

H=University Honors course.
Biomedical Engineering

20BME599
Master's Thesis Research
Thesis research credit for Biomedical Engineering Master's students
Credit Level: G. Credit Hrs: 3.00-12.00

20BME700
Introduction to IGERT Research
Graduate students admitted to the NSF IGERT program will participate in a summer laboratory rotation prior to the start of their first academic year in their doctoral program. The IGERT student will spend three weeks in the laboratory of an IGERT faculty member. Credit Level: G. Credit Hrs: 1.00

20BME702
Biomedical Engineering Seminar
Required of all full time BME students. Seminar lectures by staff and invited speakers from academic, research and industrial institutions on current biomedical engineering problems. Credit Level: G. Credit Hrs: 1.00

20BME703
BME Career Building Blocks
Required of all full time BME students. Seminar lectures by staff and invited speakers from academic, research and industrial institutions on current biomedical engineering problems. Credit Level: G. Credit Hrs: 1.00

20BME705
BME Research Design
This course will help students to develop methods and skills necessary to create, develop and execute a successful research career. Methods covered include: formulating and defining ideas, understanding and using appropriate resource management, gathering and assessing data, designing a complete research project and basic writing skills for manuscript preparation and grant writing. Credit Level: G. Credit Hrs: 3.00

20BME712
Advanced Topics in MRI
This course will detail the quantum meechanical aspects of NMR and the methods by which gradient magnetic fields are used to spatially encode the NMR signal to produce a magnetic resonant image (MR I). Prereq: 20BME610, 20BME611. Credit Level: G. Credit Hrs: 3.00

20BME719
Laboratory Research Survey
Open to first and second year BME graduate students. The research rotation will expose the student to state-of-the-art biomedical research and will help guide the student in the selection of a dissertation research mentor. Student is expected to consult with BME director and faculty mentor prior to registering for this course. The rotation does not constitute an agreement to accept student in lab for research. If student has an interest in lab for potential thesis research, student should clarify with faculty if funding is available for student's research. Credit Level: G. Credit Hrs: 1.00-6.00

20BME734
Cellular Engineering
Provides theoretical and practical training in the principles of cell culture and its uses for treatment of diseases Credit Level: G. Credit Hrs: 3.00

20BME741
Advanced Computational Biology
This course cover in depth selected problems and algorithms arising in computational molecular biology, including genomic sequence and map assembly, sequence analysis, genomic rearrangement and applications of machine learning techniques in bioinformatics. The course will involve seminar style presentations by the students and projects focused on key algorithmic issues behind widely used methods in computational biology and bioinformatics. Prereq: 20BME643. Credit Level: G. Credit Hrs: 3.00

Biomedical Engineering

20BME799
Doctoral Dissertation Research
Doctoral Dissertation Research for Students who are enrolled in the Department of Biomedical Engineering Credit Level: G. Credit Hrs: 1.00-19.00

20BME810
Independent Study in Medical Imaging
Individual advanced studies in medical imaging under the supervision of a department faculty member Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

20BME820
Independent Study in Biomechanics
Individual advanced studies in biomechanics under the supervision of a department faculty member Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

20BME830
Independent Study in Tissue Engineering
Individual advanced studies in tissue engineering under the supervision of a department faculty member Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

20BME840
Independent Study in Bioinformatics
Individual advanced studies in bioinformatics under the supervision of a department faculty member Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-6.00

20BME860
Master of Engineering Capstone Project
Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20BME864
Advanced Statistical Methods in Biomedical Research
New methods of analyzing complex data constantly evolve and the purpose of this course is to expose these methods to graduate students. The methods are culled mostly from research journals and as such no textbook is prescribed for this course. Prereq: 26BE787. Credit Level: G. Credit Hrs: 3.00

20BME881
Introduction to Functional Genomics
The course will consist of a series of lectures/seminars on the theory and use of methods of functional genomics in biomedical research. Lectures will be presented by some local speakers and invited experts outside the university. The course will include four "lab" sessions offered in an electronic classroom. These session will provide hands-on experience application of bioinformatics principles. Prereq: 26GNTD881. Credit Level: G. Credit Hrs: 2.00-4.00

Civil and Environmental Engineering

20CEE100
Introduction to Civil and Environmental Engineering
Introduction to areas of civil and environmental engineering, basic problem solving skills, ethics, co-op and curriculum. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CEE101
CEE Freshman Seminar I
This course provides an overview of environmental engineering issues and practice. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CEE102
CEE Freshman Seminar II
This course provides an overview of civil engineering issues and practices. BoK: NA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.
Civil and Environmental Engineering

20CEE103
Introduction to CEE Math
Course covers basic elements of trigonometry, geometry, calculus and differential equations through the solution of Civil Engineering problems. Students are shown how basic mathematical concepts relate to and are used in the solutions to engineering problems. Short projects included. Coreq: 20CEE100. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE204
Introduction to Environmental Assessment and Remediation
Principles of biochemistry and organic chemistry needed for environmental site assessment and remediation strategies Prereq: 15CHEM103. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CEE272
Civil Engineering Measurements
Basics of surveying instruments and their use, engineering field and laboratory measurement techniques, computerized data acquisition and reduction. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE340
Civil & Environmental Systems Analysis
Introduction to systems analysis of Civil & Environmental Engineering Systems including methodology and applications. Linear & integer programming, critical path method, and engineering economics, with application to structural, water resources, transportation engineering systems. Prereq: 15MATH273. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE345
Environmental Material Balances
Introduction to techniques of analysis for environmental systems. Application of concepts of material and energy balances to environmental systems as part of the engineering approach to problem solving. Topics include units and dimensions, process variables, reactive system balances, and equations of state for real gases. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE351
Transportation Engineering
Transportation systems; traffic flow theory; traffic engineering studies and design; highway capacity; traffic operations; signal and timing design; highway engineering overview; standards and criteria; highway geometric design. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE375
Civil and Environmental Engineering Computer Applications
Introduction to college computing facilities, applications, software, basic concepts of computer programming and application of computer solutions in civil and environmental engineering BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE376
Basic Strength of Materials
Stress-strain curves and properties of materials; direct stress; thermal stress; shear; torsion; flexure; deflections of beams; columns; combined stresses. Dept. of Civil and Environmental Engr. Ea. Qtr. Prereq: 15MATH264, 20AEEM101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20CEE381
Structures I

20CEE382
Structural Analysis
Loads and modeling of determinate and stable structures; trusses; shear and moment diagrams for beams and frames; deflections of beams, frames, and trusses; influence lines; approximate methods of analysis. Prereq: 20CEE381. BoK: NA. Credit Level: U. Credit Hrs: 4.00

Civil and Environmental Engineering

20CEE397H
Environmental Challenges in Modern India
The emergence of modern India as an economic superpower, the world's largest democracy, and the second largest Muslim nation defies conventional understanding by Western norms. In the context of tremendous ongoing growth and even stronger positioning for future growth - the challenges of environmental degradation within India are severe. The objective of this course is to focus on environmental concerns while discussing the politics, identity, economy, education, youth culture, and the future of modern India through critical review of selected readings BoK: SS., SE. Credit Level: U. Credit Hrs: 3.00

20CEE398H
Readings in Sustainable Urban Engineering
By 2050, more than five billion people live in urban agglomerations. Learning how to sustain living conditions in mega cities is critical for human capital, natural capital, and financial capital. The objective of this course is to integrate readings from urban planning, engineering, and public health with an understanding of the social implications and financial opportunities of mega cities and urban lifestyle. BoK: DC., SE. Credit Level: U. Credit Hrs: 3.00

20CEE400
Engineering Project Abroad I: Market Assessment
The objective of this course is to prepare engineers to plan and execute an assessment of a market need abroad including the identification of the need, quantifying the market opportunity, planning an international assessment trip and evaluating data collection in the field. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20CEE401
Engineering Project Abroad II: Appropriate Design
The objective of this course is to prepare engineers for appropriate design in a context-dependent manner. An emphasis will be placed on recognizing diversity and culture of the client as well as considering the social and ethical issues of engineering design. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20CEE402
Engineering Project Abroad III: Implementation
The objective of this course is to facilitate the inherent entrepreneurial spirit of each student to implement an appropriate design. An emphasis will be placed on creativity in recognizing diversity and culture of the client as well as considering the social and ethical issues in a context-dependent manner. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20CEE471
Environmental Engineering I
Fundamental physical, chemical, and biological mechanisms relevant to understanding and modeling important water and air pollution problems. Introduction to treatment and pollution prevention technologies. Techniques for understanding how these problems impact the environment and the risks they pose. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE472
Practical Aspects of Building Energy Audits
Global warming represents one of the great problems confronting our civilization today. At the core of this problem is the massive generation of greenhouse gases (GHGs) that result from the burning of fossil fuels. In our country approximately 40% of all our energy consumption is associated with the heating, cooling, and lighting of buildings, so increasing the efficiency of these processes is a prime target for reducing our GHG production. This course uses lecture-discussion and hands-on energy audits as a means of teaching students how to perform a basic assessment of ways to reduce GHG production for non-commercial buildings. The course targets University Honors Scholars Program students and UC GenEd Breath of Knowledge Courses in Social and Ethical Issues and Social Sciences. BoK: SS., SE. Credit Level: U. Credit Hrs: 0.00-3.00

H=University Honors course.
Civil and Environmental Engineering

20CEE474
Construction Materials/Concrete Laboratory
Testing of various construction materials with special emphasis on mixing and testing of concrete materials and structures. 3 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE475
Construction Materials
General characteristics, physical properties, methods of manufacture, and uses/design of concrete, mortar, brick, steel, wood, and asphalt. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20CEE476
Principles of Soil Mechanics
Soil structure and clay minerals, soil compaction, soil hydraulics, consolidation and settlement, shear strength, lateral earth pressures, bearing capacity and slope stability. 3 lec. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE477
Soil Mechanics Laboratory
Laboratory exercises involving the engineering properties of soils and their measurement. A lab report is required for all projects unless stated by the instructor. Computer usage is stressed in the analysis and presentation of results. Coreq: 20CEE476. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE480
Structures II
Loads and modeling of determinate and stable structures; trusses; shear and moment diagrams for frames; deflections by energy methods; influence lines. Coreq: 20CEE381. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20CEE481
Structural Steel
Design of steel beams, columns, frames, and connections for buildings. 3 lec., 2 lab. Prereq: 20CEE382. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20CEE482
Reinforced Concrete

20CEE493
Hydraulic Systems

20CEE494
Fluid Mechanics and Hydraulics Laboratory
Laboratory experiments designed to provide a physical demonstration of hydrostatics, pipe flow, measuring devices, and open channels. Computer-aided analysis of hydraulic systems. 1 lec., 3 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE501
Senior Project
An original report of a study, design, or investigation which demonstrates the ability of the student to undertake individual responsibility on a comprehensive civil engineering project. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

20CEE502
Senior Project
See 20-257-501. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

Civil and Environmental Engineering

20CEE503
Senior Project
See 20-257-501. BoK: NA. Credit Level: U. Credit Hrs: 1.00-15.00

20CEE504
Integrated Design I
Integrated design is a 3 quarter, team-driven, multi-disciplinary design experience. Students are guided by a panel of UC CEE faculty members and representatives from industry. Each student team will be given a real-world design problem to complete in the 3 quarters allotted. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE505
Integrated Design II
Integrated design is a 3 quarter, team-driven, multi-disciplinary design experience. Students are guided by a panel of UC CEE faculty members and representatives from industry. Each student team will be given a real-world design problem to complete in the 3 quarters allotted. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE506
Integrated Design III
Integrated Design is a 3 quarter, team-driven, multi-disciplinary design experience. Students are guided by a panel of UC CEE faculty members and representatives from industry. Each student team will be given a real-world design problem to complete in the 3 quarters allotted. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CEE543
Hydrology

20CEE550
CEE Finite Element Applications
Direct stiffness and ritz approaches; shape functions and isoparametric formulation; numerical solution of linear simultaneous equations. One- and two-dimensional elements for truss, beam, plate, flow and heat transfer problems in CEE. Mesh refinement and convergence. Prereq: 20CEE476, 20CEE480. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE551
RELIABILITY OF CEE SYSTEMS
Fundamentals of reliability theory applied to systems and components used in CEE. Design of experiments to quantify reliability; evaluation of experimental results; discrete and continuous distributions; multi-variate distributions; uncertainty; regression and correlation. Prereq: 15MATH366. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE561
Senior Seminar
Discussion of topics important to students nearing graduation; ethics, professional registration, etc. 1 lec. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CEE583
Structural Loads and Systems
In-depth discussion of minimum design loads and load combinations. Overview of various steel and concrete structural systems, discussion of practical selection and design issue. Design of joist systems, diaphragms, and lateral bracing. 3 lec., 2 lab. Prereq.: 20CEE481, 20CEE482, 20CEE585. Prereq: 20CEE481, 20CEE482, 20CEE585. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CEE584
WOOD/MASONRY
Wood/Masonry BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE585
Advanced Analysis of Structures
Extension and intensification of structural analysis. Virtual work.
Civil and Environmental Engineering

20CEE600
Millennium Goal 7: Ensure Environmental Sustainability
The objective of this course is to demonstrate key concepts in environmental chemistry and microbiology through engaging students in the evaluation of appropriate technology using case studies. Drinking water and sanitary system design in North America, India, and Sub-Saharan East Africa will be used to compare design needs in developed, emerging, and less developed countries. Successful completion of this course should prepare students for further study in appropriate technologies. BoK: SE., QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE600H
Millennium Goal 7: Ensure Environmental Sustainability
The objective of this course is to demonstrate key concepts in environmental chemistry and microbiology through engaging students in the evaluation of appropriate technology using case studies. Drinking water and sanitary system design in North America, India, and Sub-Saharan East Africa will be used to compare design needs in developed, emerging, and less developed countries. BoK: SE., QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE601
Millennium Goal 7: Ensure Environmental Sustainability Lab
Introductory laboratory course on the chemical and microbiological measurements used in water and wastewater sampling and analysis. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE601H
Millennium Goal 7: Ensure Environmental Sustainability Lab
Introductory laboratory course on the chemical and microbiological measurements used in water and wastewater sampling and analysis. BoK: SE., QR. Credit Level: U, G. Credit Hrs: 1.00

20CEE603
Managing an Engineering Practice
Practical aspects of establishing and managing a professional engineering practice; legal, accounting, liability and insurance considerations; registration and professional ethics; human resource management; sales and marketing of projects. 3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE604
Highway Engineering
Overview from programming through design to construction. Coverage of design controls and standards, alignment and grade line, typical sections, geometric design, design with COGO, surveying and mapping intersections and channelization, cross sections and earthwork, drainage and right of way, safety criteria, maintenance of traffic, contract documents, legal and environmental considerations. 3 lec. Prereq: 20CEE641. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE605
Transportation Demand Forecasting I
Fundamental concepts and theories of travel demand forecasting process; aggregate travel demand models; trip generation, trip distribution, modal split, network assignment. 3 lec. Prereq: 20CEE641. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE606
Traffic Engineering
Operation of transportation systems; traffic surveys and studies; laws and ordinances; traffic control devices, including signals, pavement markings and traffic signals; signal systems; speed; capacity analysis. 3 lec. Prereq: 20CEE641. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Civil and Environmental Engineering

20CEE607
Pavement Design
Stresses and deflections in pavements. Effects of traffic, vehicle loads and climate on design of pavements. Pavement material characterization. Design of flexible and rigid highway pavements. Overlay design. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE608
Transportation Systems Evaluation
Current transportation legislation and federal policies; methods of alternative analysis of transportation systems; analysis of user costs, travel time and safety improvements; benefit-cost and cost-effectiveness analyses; community concerns and environmental impact analyses; planning, programming and prioritizing; impact studies. 3 lec. Prereq: 20CEE641. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE609
Mass Transit Engineering and Operations
Introduction to urban mass transportation; transit models; transit performance and design standards; designing transit system components and operations; revenue and cost estimation; rail transit. 3 lec. Prereq: 20CEE641. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE610
Computer Methods in Transportation
Use of computers to analyze traffic data and interpret models; use of current microcomputer software for capacity analysis and signal timing. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE611
Advanced Strength of Materials
Review of stress-strain relationships, stress on an inclined plane and Mohr's circle; combined loading, combined stress and strain rosettes, pressure vessels; beam mechanics, shear center, and unsymmetric bending; columns; introduction to fatigue and stress concentrations. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE612
Transportation Demand Forecasting II
Introduction to computerized travel demand models; use of computers to forecast travel demand; calibration and application; techniques to refine travel forecasts from computerized models. 3 lec. Prereq: 20CEE605. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE613
Computer Aided Pavement Engineering
Use of computers for analyses, design and evaluation of flexible and rigid pavements; analysis of NDT pavement data; maintenance management of pavements. 3 lec. Prereq: 20CEE607. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE614
Municipal Solid Waste Management
Analysis of the characteristics and management options of municipal solid wastes. Management options are compared for their technical feasibility and environmental soundness. Emphasis is placed on energy and resource recovery. 3 lec., 2 lab. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE615
Environmental Virology I
Basic principles of virology, including the nature of viruses, classification, methods for cultivation, determination of infection and assay, structure, chemistry, molecular genetics and mechanism of infection. 2 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00

20CEE616
Environmental Virology II
Viruses that infect man. Diarrheal viruses, hepatitis viruses, herpes viruses, adenoviruses, common cold viruses, AIDS virus, influenza and parainfluenza viruses, slow viruses, and others. 2 lec. Prereq: 20CEE615. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00

H=University Honors course.
Civil and Environmental Engineering

20CEE617
Environmental Virology II
Occurrence, survival, detection, removal and destruction of viruses in the air, food and water environments. 2 lec. Prereq: 20CEE616. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00

20CEE618
ENVIRONMENTAL MOLECULAR MICROBIOLOGY
This course will develop for the student the basic principles of molecular microbiology, describe the techniques of the discipline and provide a basis for evaluating new molecular methods for indicator and pathogen detection in environmental waters. BoK: NS. Credit Level: U, G. Credit Hrs: 2.00

20CEE619
Molecular Methods in Environmental Engineering andScience
Introduces molecular methods (recombinant DNA tech niques, immunochemistry, and 16S rRNA technology) for the indefition, enumeration, and quantitat ive monitoring of microbial populations in natural and engineered systems. (Lecture and lab) Prereq: 20CEE600, 20CEE646. BoK: NA. Credit Level: G, U. Credit Hrs: 4.00

20CEE620
Steel Bridge Engineering
Covers basic bridge engineering topics including bridge loading, truss systems, noncomposite and composite beam and plate-girder systems, fatigue, and other limit states according to the AASHTO- LRFD Specification. Prereq: 20CEE381, 20CEE481. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20CEE621
Concrete Bridge Engineering
Covers basic bridge engineering topics including bridge loading, concrete and precast concrete superstructures, slabs, end-zone and anchorages according to the AASHTO-LRFD Specification. Prereq: 20CEE381, 20CEE482. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE622
Traffic Signal Design
Fundamental concepts and standard practices of traffic signal design. Design process and operational aspects of traffic signals. 3 lec. Prereq: 20CEE4451. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE623
Construction Estimating
Types of estimates; estimating techniques; computer application; bidding strategies; value engineering. Students will use real projects and interact with local contractors. 4 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

20CEE624
Highway Safety
Overview of highway safety engineering studies methodology; problem identification, countermeasure selection and project development; accident surrogates for use in highway safety analysis; before/after study design. 3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE625
Remediation Geotechnics
Geotechnical practice for remediation of contaminated sites is discussed. Topics covered include site characterization, soil and groundwater monitoring, in situ containment, air-based remediation, and reactive barriers. Prereq: 20CEE476, 20CEE477. BoK: QR. Credit Level: G, U. Credit Hrs: 3.00

20CEE626
ENVIRONMENTAL SYSTEMS ANALYSIS
Environmental Systems Analysis BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE627
Mathematical Principles of Environmental Systems
Fundamental mathematical concepts and numerical algorithms that are important for developing and solving mathematical models of environmental systems. Use of these fundamental concepts and algorithms as building blocks for simulating and studying environmental processes and systems. Computer use. algebra; ordinary differential equations recommended. 4 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE628
Seepage
Permeability, seepage fundamentals, and flow net construction. Analysis and design methods to control seepage and groundwater in foundations, earth dams, earth slopes, roads, airfields and other civil engineering works. 3 lec. Prereq: 20CEE476. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE629
Lateral Earth Pressures
Lateral earth pressure theories, anchored bulkheads, cellular cofferdams, braced excavations, tieback walls, reinforced earth. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE630
Earth Dam Design
Foundation geology, site investigation, foundation treatment and grouting, seepage, slope stability, embankment construction, spillway analysis, and safety in operation and maintenance. 3 lec. Prereq: 20CEE628. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE631
Asphalt Pavement Technology
Production and uses of bituminous materials; measurement and significance of lab properties of asphalt; asphalt mix design; aggregate for asphalt pavements, bituminous base stabilization; quality control. 3 lec. and lab. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE632
Geotechnics of Waste Containment
The geotechnical aspects of waste containment and storage. Aspects of design, construction, testing , and performance of waste containment systems and remediation systems for contaminated sites. BoK: QR. Credit Level: G, U. Credit Hrs: 3.00

20CEE633
Mechanistic Principles of Pavement Design

20CEE635
Ground Control and Improvement
Techniques for ground support, control and improvement, including vibrocompaction, soil nailing, pin piles, permeation grouting and compaction grouting. Case histories are emphasized. 3 lec. Prereq: 20CEE476. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE636
Geosynthetics: Theory and Applications
Design techniques and applications for geotextiles, geosynthetics, geomats, geonets, geomembranes and geocomposites as they are used in environmental, geotechnical, and other construction engineering projects. 3 lec. Prereq: 20CEE476. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE640
ENVIRONMENTAL CHEMISTRY FOR MANAGERS
Introductory course for the application of environmental chemistry concepts for problems encountered by environmental managers Prereq: 15CHEM103. BoK: QR, SE. Credit Level: U, G. Credit Hrs: 4.00
Civil and Environmental Engineering

20CEE641 Environmental Engineering Seminar
Lectures and discussions of topics relating to the control of the environment. Guest lecturers as well as student presentations. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE642 Environmental Engineering Seminar
See 20-257-641. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE643 Environmental Engineering Seminar
See 20-257-641. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE644 Environmentally Conscious Engineering
Introduction to the principles of environmentally conscious engineering. Overview of effluents of environmental contaminants, pollution prevention concepts, materials selection, design for disassembly, economic analysis, and sustainability concepts. 3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE645 Environmental Policy and Decision Making
Environmental policy analysis with a focus on engineering and technology issues. Uses and organization of environmental policy studies. Role of science and technology in policy studies. Improving theory and practice of policy analysis and decision making. 3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE646 Biological and Microbiological Principles of Environmental Systems
Basic principles of biology, biochemistry and microbiology with emphasis on energetics, biogeochemical cycling and interactions among biological populations, and influence of environmental factors on the growth and distribution of biological life in different environments. 4 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE647 Chemical Principles of Environmental Systems
Introduction to the chemical principles which are a part of environmental systems used to treat and maintain the air, land, water and to treat the wastes produced by man and industrial processes. Covers topics important to aquatic chemistry, including acid/base behavior, metal-ligand chemistry, precipitation and dissolution, redox chemistry, and the chemistry of carbon dioxide. 4 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE648 Environmental Chemistry Laboratory
Laboratory course on the chemical and biological measurements of dilute aqueous systems, including sampling and analysis of water and wastewater; computer usage in the laboratory; data/quality control and quality assurance. 3 lab. Prereq: 20CEE647. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE649 Introduction to Sustainable Urban Engineering
Provides a trans-discipline introduction to topics in engineering, planning, policy, health and environmental studies related to the unique challenges of developing and maintaining economically and environmentally sustainable urban regions. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE650 Environmental Biology and Microbiology Laboratory
Laboratory and field exercises emphasizing the activities of biological and microbiological life and their interactions and effect on man and his environment. Analyses of water, wastewater, solid and hazardous materials, and bioaerosols. 3 lab. Prereq: 20CEE646. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE651 ENVIRONMENTAL LAW AND POLICY
This course imparts a working knowledge of current environmental regulation and of the processes and institutions which share environmental law and policy and addresses the special needs of environmental managers and professionals. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE652 Advanced Topics in Environmental Water Chemistry
Advanced chemical concepts used in water treatment and environmental protection of water resources. State-of-the-art research is emphasized. 3 lec. Prereq: 20CEE647. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE653 Physical Principles of Environmental Systems
Analysis of the physical principles which form the basis for many unit operations in water and air quality control operations: sedimentation, filtration and flow through porous media, principles of reactor design, and principles of mass transfer. 4 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE654 Physical/Chemical Processes for Water Quality Control
Process design of physical-chemical systems for water and wastewater treatment. Includes mixing, coagulation-flocculation, sedimentation, media-filtration, adsorption, gas transfer, oxidation, disinfection, flotation and membranes. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE655 Biological Processes for Water Quality Control
Theoretical and practical applications of biological principles to the treatment of water and wastewater. Other areas include sludge dewatering and disposal and solids separation. 4 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 4.00

20CEE656 Public Health Practices Related to Environmental Contros
Basic principles of communicable diseases as applied to water and wastewater disposal and treatment practices, insect and rodent control, solid and hazardous waste disposal, and indoor and outdoor air pollution. BoK: SE. Credit Level: U, G. Credit Hrs: 4.00

20CEE657 Basic Principles of Environmental Law
Emphasis on toxics and hazardous materials laws, as well as other aspects of environmental laws. Recent examples of environmental litigation to emphasize legal points. 3 lec. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE658 Environmental Instrumentation
Lecture/laboratory course on the theory and practical use of instruments used to analyze environmental samples. Instruments include GC, GC/MS, HPLC, IC, AA, UC-VIS SPEC. 2 lec., 3 lab. Prereq: 20CEE647, 20CEE648. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

20CEE659 Unit Operations Laboratory and Process Monitoring
Lecture/laboratory course on the theory and practical applications of experimental treatment processes. The class will evaluate both short term and long term processes, such as settling, carbon adsorption, oxidation, activated sludge, and anaerobic digestion. 1.5 lec., 4-5 lab. Prereq: 20CEE646, 20CEE647, 20CEE648. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

20CEE660 Environmental Engineering Management Ethics
This course addresses the ethical questions that arise when an engineer is faced with environmental concerns resulting from the creation of a technology. Several major environmental events will be reviewed. 1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00
Civil and Environmental Engineering

20CEE660  
Environmental Engineering Management Ethics  
This course addresses the ethical questions that arise when an engineer is faced with environmental concerns resulting from the creation or application of technology. Several major environmental events will be reviewed.  1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE661  
Pollution Prevention and Economics  
This course includes the fundamental concepts of pollution prevention (P-2), P-2 law and hierarchy, P-2 audit systems and concepts of P-2 economics.  3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE662  
Atmospheric Chemistry and Monitoring  
A review of organic chemistry. Atmospheric chemistry: both photochemical smog formation and atmospheric aqueous chemistry. Air pollution monitoring and quality assurance, including data quality objectives.  3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE664  
Air Resources Management  
A survey of the concepts of managing the air as a natural resource including sources, effects measurement and monitoring, transport and fate, and laws and regulations of air pollution and the application of these concepts to the development of environmental protection policy and programs and their implementation.  3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE665  
Principles of Combustion  

20CEE666  
Environmental Risk Analysis and Assessment  
The course introduces the process of risk analysis including risk assessment and its translation into risk management and engineering decisions for environmental improvements.  3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE667  
Environmental Impact Analysis  
Environmental impact analysis methodologies, National Environmental Policy Act and related regulations, international perspectives, contemporary issues in environmental assessment.  3 lec. BoK: QR., SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE669  
Industrial Sources of Air Pollution  
Analysis of industrial processes, estimation of air pollutant emissions, maintenance and operation of air pollution control facilities. Field trips to representative plants.  3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE670  
Construction Equipment and Planning  
Construction equipment selection, planning and management; engineering fundamentals. Course is project oriented; case studies used extensively.  3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE671  
Aerosol Science and Engineering  
Physics of aerosols: size and size distributions, mechanics of motion, agglomeration, diffusion, electrical effects and light scattering. Applications to sampling, deposition, visibility, condensation and nucleation of aerosols.  3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE672  
Design of Particulate Control Systems  
Mechanical collectors, filters, scrubbers, electrostatic precipitators, and advanced concepts.  3 lec. Prereq: 20CEE671. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE673  
Diffusion and Mass Transfer in Environmental Systems  
Design principles for control of gaseous pollutants and air handling systems. Theory of diffusion and mass transfer for application to adsorption, adsorption, and incineration systems.  3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE674  
Design of Gaseous Pollution Control Systems  
Analysis and design principles of various gaseous control equipment including flue-gas desulfurization systems, NOx control, volatile organic vapors and odors.  3 lec. Prereq: 20CEE673. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE675  
Sustainable Infrastructure and Green Construction  
The course will focus on the built and civil infrastructure environment by considering total life cycle assessment of engineering designs and construction alternatives in the context of sustainable development. Additionally, the course will educate students about green building procedures and strategies, the LEED rating system and the requirements that need to be met on the construction site and in the office to achieve a certified structure. This will include Energy and Atmospheric, Indoor Environmental Qualities, Sustainable Sites, Materials and Resources and Water Efficiency. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE676  
Advanced Seminar in Environmental Engineering  
Presentations and discussion of recent developments and research work in Environmental Engineering.  1 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20CEE677  
CE Engineering Economics  
The impact of economic decisions on engineering projects and the associated decision making process.  3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE678  
Case Studies Construction  
Examination of the difference between lean construction and traditional project management. assignments, choice of topics and speakers.  3 lec. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE679  
Construction Project Management  
Principles of management, labor motivation, theories of bidding, analysis of risk, valuation, cost control, budgetary control.  3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE680  
Construction Planning and Estimating  
Types and preparation of bids, conceptual estimating, operation analysis, theory of queuing,CPM, PERT, planning with limited resources, resource leveling.  3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE681  
Foundation Engineering I  
Subsurface exploration for foundations. Analysis of shallow footings, mats, retaining wall foundations, pier and pile foundations.  3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE682  
Foundation Engineering II  
Structural analysis and design of footings using ACI Code; pedestals, bearing plates, anchor bolts; square, rectangular, combined and mat
Civil and Environmental Engineering

20CEE682
Foundation Engineering II
Foundations; pile caps; case histories. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE683
Prestressed Concrete
Design of pretensioned and post-tensioned units, including loss of pre-stress, flexure, shear, and bond. Design of pre-stressed structures using the ACI code and bridge design using the AASHTO code. Use computer-aided design. 3 lec. Prereq: 20CEE482. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE686
Introduction to Digital Prototyping for AEC Projects
Introduction to Digital Prototyping for AEC Projects - Use of object-oriented 3-D parameter models to assist with project management tasks such as quantity estimating, clash detection, and installation sequencing. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CEE687
Law for Engineers
Legal principles, including construction contracts and liability issues affecting engineers and contractors. Minimizing loss due to liability. Alternative methods of dispute resolution. 3 lec. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20CEE688
Matrix Analysis of Structures
Matrix theory and digital computer techniques for the solution of structural problems. 3 lec. Prereq: 20CEE585. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE689
Hydrologic Processes
A close look at the pathways of rainwater at the earth's surface and at the meteorological, soil physical, and topographic parameters that control these pathways. Perm of Instructor. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE690
Modeling Hydrologic-Hydraulic Systems
Practical applications of state-of-the-art computer models to solve problems in prediction and control of water quality and quantity. Models may include SWMM, STORM, KYPipe, HEC-1 and HEC-2. 3 lec. Prereq: 20CEE483, 20CEE543. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE691
Climate Change and Environmental Impact

20CEE692
Watershed Field Course
Field description of soils & their interpretation in a landscape context. Field determination of soil properties relevant for hydrological and biogeochemical processes. Perm of Instructor. BoK: NS, SE. Credit Level: U, G. Credit Hrs: 5.00

20CEE693
Environmental Hydraulics
Particle and contaminant transport in pipes, unsteady gradually varied open channel flow, residence times and mixing in reactors. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CEE694
Statistical Principles for Environmental Systems
Elements of probability theory; common probabilistic models; statistical hypothesis testing and confidence intervals, correlation and regression analysis; introduction to multi-variate systems; non-parametric methods. Examples and illustrations emphasize environmental problems. 3 lec.

Civil and Environmental Engineering

20CEE711
Theory of Structures I
torsion, generalization to non-circular cross-sections, St. Venant torsional theory and Prandtl stress function, and membrane analogy and application to cross-sections consisting of a system of rectangles. Prereq: 20CEE585. Credit Level: G. Credit Hrs: 3.00

20CEE712
Theory of Structures II
Finite element analysis methods applied to structures and structural components. Plane stress and plane strain elements, axisymmetric and solid elements, plate bending elements. 3 lec. Prereq: 20CEE711. Credit Level: G. Credit Hrs: 3.00

20CEE713
Theory of Structures III
Advanced finite element applications to complex structural behavior. Thin shells, material and geometric non-linearities, fracture problems, dynamic and buckling problems. 3 lec. Prereq: 20CEE712. Credit Level: G. Credit Hrs: 3.00

20CEE714
Nonlinear Structural Analysis
Fundamentals of mechanics of nonlinear systems and material models for non-Hookean materials. Solution strategies and numerical methods for analysis of structures with geometric and material nonlinearity, with computer applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE719
Management of Professionals
This course examines the essential functions of management particularly as related to technical professionals. Topics: managing people, projects & teams; communication; development of organizations; and conflict resolution. Materials presented through readings, case studies and interactive exercises. Credit Level: G. Credit Hrs: 3.00

20CEE720
Management of Science, Technology and Innovation
Unique characteristics of managing science, technology and innovation based organizations; strategic planning; motivation; conflict management; technology transfer; and science and technology policy. Credit Level: G. Credit Hrs: 3.00

20CEE721
Hazardous Waste Management
Theory and practice of hazardous waste management are presented from the viewpoint of maximum human and environmental protection with realistic technical expectations for chemical, biological and combined technologies. Risk reduction and safety are integrated into the management concepts. 3 lec. Prereq: 20CEE614. Credit Level: G. Credit Hrs: 3.00

20CEE722
Industrial Wastewater Treatment
Principles of modern industrial wastewater treatment. Analysis of specific pilot and full-scale treatment plants which are treating complex industrial wastes and meeting discharge requirements. 3 lec. Prereq: 20CEE651. Credit Level: G. Credit Hrs: 3.00

20CEE723
Data Analysis for Environmental Sciences
An introduction to the analysis of messy data with an emphasis on exploratory and robust methods, and to experimental design. Credit Level: G. Credit Hrs: 2.00

20CEE724
Advanced Unit Operations for Water and Wastewater Treatment
Fundamentals and applications of advanced unit operation for the purification of drinking water and wastewater. Those include organic and inorganic membranes, ion exchange, adsorption, ultra-filtration, chemical oxidation, and reverse osmosis. Credit Level: G. Credit Hrs: 3.00

Civil and Environmental Engineering

20CEE740
Construction Innovation Seminar
Introduction to research needs and state of the art research and development (innovation) in the construction industry. Offered through a series of presentations made by people from the industry as well as students and faculty working in construction related research and development. Credit Level: G. Credit Hrs: 3.00

20CEE742
Computer Applications in Construction
An overview of information systems in project management, specifically construction engineering, management and administration applications. Overview of computer technology, application planning, development, and management issues, and selected application development tools. Credit Level: G. Credit Hrs: 3.00

20CEE743
Strategic Planning
Integrated project management, business planning and organization, financial control, project cost control, bid evaluations, bidding strategies, risk analysis, constructability, and lean construction. Credit Level: G. Credit Hrs: 3.00

20CEE761
Soil Mechanics I
In situ soil stresses, elastic properties of soils, induced stresses, immediate and consolidation settlements, secondary compression, stress path analysis, predicting settlement, difficult soils and site improvement. 3 lec. Prereq: 20CEE476. Credit Level: G. Credit Hrs: 3.00

20CEE762
Soil Mechanics II
The shear strength parameters of cohesionless and cohesive soils; their proper measurement and use. Effect of pore pressure. Effect of soil strength on foundation design, slope stability analysis and lateral earth pressure. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE763
Advanced Foundation Engineering
Study of piles, piers and drilled shafts. Foundations on difficult sites. Case studies. 3 lec. Prereq: 20CEE681. Credit Level: G. Credit Hrs: 3.00

20CEE764
Rock Mechanics
Classification and index properties of rocks; rock strength and failure criteria; initial stresses in rock and their measurement; planes of weakness in rocks; deformability of rocks; applications - underground openings, rock slopes, and foundations Prereq: 20CEE476, 20CEE477, 15GEO3L374. Credit Level: G. Credit Hrs: 3.00

20CEE774
Traffic Flow Theory
Statistical distribution of traffic characteristics: traffic stream models; car following models; hydrodynamic models of traffic; queuing models. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE775
Artificial Intelligence Techniques in CEE
Introduction to expert systems and neural networks with applications in civil and environmental engineering. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE776
INTELLIGENT TRAFFIC MANAGEMENT SYSTEMS
Overview of the national intelligent transportation systems program: freeway surveillance and control systems; driver information and route guidance; incident detection; automated traffic signal system. Credit Level: G. Credit Hrs: 3.00

20CEE781
Reinforced Concrete Theory
Advanced material properties of concrete including failure criteria, creep...
Civil and Environmental Engineering

20CEE781 Reinforced Concrete Theory
and shrinkage. Mathematical and numerical modeling of concrete under uni-axial compression, bi-axial and confined loading. Theoretical treatment of column behavior. Examination and modeling of tensile behavior, tension stiffening, bond and anchorage. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE782 Reinforced Concrete Design I

20CEE783 Reinforced Concrete Design II
Behavior and design of two-way slab systems and frame systems, including slab column connections and beam column connections. Behavior and design of reinforced concrete structural wallsand frame-wall intersection. Computer modeling of reinforced concrete structures, with an emphasis on flat slab systems and structural walls. 3 lec. Prereq: 20CEE782. Credit Level: G. Credit Hrs: 3.00

20CEE785 Theory of Metal Structures I
Design of steel tension members, columns, and beams by allowable stress and LRFD methods. Elastic and inelastic behavior, torsion, buckling. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE786 Theory of Metal Structures II
Design of steel plate girders, beam-columns, and frames. Allowable stress and LRFD design methods. 3 lec. Prereq: 20CEE785. Credit Level: G. Credit Hrs: 3.00

20CEE787 Theory of Metal Structures III
Design of connections for steel members, design of bracing for stability, and comprehensivesteel frame design. 3 lec. Prereq: 20CEE786. Credit Level: G. Credit Hrs: 3.00

20CEE788 Structural Dynamics I
The vibration analysis of building elements and structures under dynamic loadings. Single and multiple degree-of-freedom discrete systems, with exposure to continuous systems. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE789 Structural Dynamics II
Analysis, including modeling and assumptions, of building structures for seismic ground motions. Response spectrum, seismic design codes, blast loadings, floor vibrations. Computer applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CEE793 Modeling Surface Water Quality
Advevtive and dispersive transport of pollutants in overland and channel flow; kinematicnon-point source model; first-order kinetics; mixing in rivers. 3 lec. Prereq: 20CEE697. Credit Level: G. Credit Hrs: 3.00

20CEE794 Hydrologic Signal Processing
Quantitative treatment of spatial and temporal variability in hydrologic processes with an emphasis on earth system science perspective. Correlation and spectral analysis of periodic and aperiodic signals. Estimation of static and dynamic systems including kriging and Kalman filtering. Issues of scale disparity in geophysical processes. or perm. of instr. 4 lec. Credit Level: G. Credit Hrs: 4.00

Civil and Environmental Engineering

20CEE823 Advanced Processes for Water Treatment
Physicochemical and biological processes as applied to drinking water treatment. 3 lec. Prereq: 20CEE654. Credit Level: G. Credit Hrs: 3.00

20CEE824 Advanced Hazardous Waste Treatment
The design and application of emergency technologies in the area of hazardous waste treatment, destruction, and recovery. Selection of treatment processes of specific waste streams will be emphasized. 3 lec. Prereq: 20CEE721. Credit Level: G. Credit Hrs: 3.00

20CEE860 Master of Engineering Capstone Project
Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20CEE872 Research
Projects or research to be done by independent study, not for the MS thesis or PhD dissertation. Credits to be arranged. Offered ea. Qtr. Credit Level: G. Credit Hrs: 1.00-15.00

20CEE899 MS/PhD Research
Research for the MS thesis or PhD dissertation as required Credit Level: G. Credit Hrs: 1.00-15.00

20CEE904 Fundamentals and Applications of Advanced Oxidation Technologies
The emphasis of this course is to teach the fundamental mechanisms of AOTs and their application to water treatment. These AOTs include H2O2/UV/03, Fenton's and photo-Fenton's reagent, Ti02 photocatalysis, and sonolysis. The course covers the mechanisms of the degradation reactions, reactor design and process development. The course also includes case studies for the application of these technologies in pilot and full-scale projects for water treatment and in some cases for air treatment and disinfection. Credit Level: G. Credit Hrs: 3.00

20CEE905 Readings
Tutorial study of problems selected for independent study. Credits to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

20CEE906 Readings
See 20-257-905. Credit Level: G. Credit Hrs: 1.00-15.00

20CEE907 Readings
See 20-257-905. Credit Level: G. Credit Hrs: 1.00-15.00

Chemical Engineering

20CHE100 Introduction to Chemical Engineering
Introduction to the field of Chemical Engineering and what areas it encompasses including future opportunities in the field. Also, covers ethics, the co-op program, and a team project in creative problem solving. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CHE362 Chemical Engineering Thermodynamics
Applications of thermodynamic principles to chemical reaction equilibria, phase equilibria, and various physical and chemical processes. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE364 Material and Energy Balances
Introduction to chemical engineering: material and energy balance calculations for industrial chemical processes. 3 lec., 3 lab. Prereq: 20ENFD382. BoK: NS. Credit Level: U. Credit Hrs: 4.00

H=University Honors course.
Chemical Engineering

20CHE373 Chemical Engineering Computational Methods
Computational methods and practices in solving complex chemical engineering problems. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20CHE421 Principles of Momentum Transport
Applications of fluid mechanics in engineering systems. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE422 Principles of Heat Transfer
Conduction, convection, and radiation, emphasizing applications of the convective mode. Prereq: 20CHE421. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE423 Principles of Mass Transfer
Emphasizing the principles of operation and design of differential contacting equipment. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE436 Chemical Engineering Laboratory IV
Laboratory studies to illustrate chemical engineering principles and operations. 6 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CHE437 Chemical Engineering Laboratory V
See 20CHE436. 9 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CHE461 Equilibrium Processes-Stagewise Operations
Fundamentals of stagewise operations and applications in distillation, gas absorption, and extraction. Prereq: 20CHE362. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE462 Chemical Reaction Engineering
The principles of energy and mass transport and of chemical rate processes applied to the design of process equipment. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE475 Special Projects
Study or experimental research in areas not covered in other courses. Offered each qtr. Faculty supervision required. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

20CHE545 Process Design Project I
Application of fundamental theory and economic factors in the design of chemical processes and equipment. Prereq: 20CHE581. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

20CHE546 Process Design Project II
See 20-CHE-545. Prereq: 20CHE545. BoK: NA. Credit Level: U. Credit Hrs: 3.00-4.00

20CHE571 Process Dynamics and Control
Principles of automatic control and process dynamics applied to the chemical process industries; examples of measurement and control. Prereq: 20MATH273. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE581 Chemical Engineering Systems
Analysis and design of chemical processes with emphasis on economics and optimization. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20CHE591 Plastics Technology
Preparation, properties, and applications of polymers as engineering materials. Includes polymer processing technology, polymer blending and modification, and material selection for specific applications. BoK: NS. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Chemical Engineering

20CHE623  Biochemical Engineering
Study of the microorganisms, chemistry and processes in the biochemical industries. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE624  Biotransformation and Biocatalysis
Will focus on biochemistry of microbial and in vitro systems that lead to organic synthesis from renewable feedstocks. It will describe major metabolic pathways of the microbial biotransformation of key classes of "xenobiotic" compounds and other types of biocatalytic processes. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE626  Liquid Mixing Technology
The majority of the processes in industry involve batch or continuous production units which utilize some form of mixing system. This training will provide fundamental knowledge on liquid mixing processes and design of liquid mixing equipment and will focus on problem solving. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE630  Waste Treatment
Fundamentals of fate modeling and systematic development of waste treatment processes. Covers the modeling and design equations for unit operations for treatment of contaminated air, water, and soil. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE635  Fuels and Air Pollution
Properties of primary chemical fuels; fuel combustion processes; mechanisms of production of air pollutants; strategies for reducing air pollution. Prereq.: Sr. standing in engineering. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE637  Homogeneous Catalysis
Description of homogeneous catalytic systems and reactors. Reactor design and stability. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE641  Non-Equilibrium Thermodynamics
Principles of non-equilibrium thermodynamics and application to the analysis of irreversible processes. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE643  Transport Phenomena I
An advanced treatment of transport processes. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE650  Bioseparations
Downstream processing for biotechnology. Introduction to large-scale separation and purification of the products of biochemical engineering. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE655  Adsorption Processes
Equilibrium and kinetic phenomena in adsorption processes for gas and liquid separations. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE657  Fuel Cells I: Fundamentals
This course discusses principles and operation mechanisms of fuel cell systems and the underlying thermodynamics and physical factors that determine cell performance. The course covers the concept and classification of fuel cells, thermodynamics, electrochemical/efficiency, basics of fuel cells. Prereq: 20CHE632. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Chemical Engineering

20CHE658  Fuel Cells (II): Technology and Applications
Course will begin with an overview of sustainable energy supplies for fuel cell development. Issues regarding hydrogen fuel generation and storage are considered. There will be detailed discussions on most important types of fuel cells and their applications. Prereq: 20CHE657. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE659  Inorganic Membranes
Covers synthesis methods in chemical, structural and transport properties of advanced inorganic membranes. Methods used for inorganic preparation include chemical vapor deposition, physical vapor deposition, sol-gel, co-precipitation and liquid phase deposition. Chemical, structural, surface and transport properties of inorganic membranes will be discussed in this course. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE660  Membrane Separations
Membrane transport, nonequilibrium thermodynamic formalism, membrane preparation and characterization, separation devices, cascade, computer simulation, industrial applications. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE661  Aging, Evolving Systems: Re-engineering the Corporate System
How the shape of the table of organization, power distribution and redundancies of duties affect the function of a corporation. Six parameters will be identified, involving overlapping activities, structural geometry, center of gravity and symmetry of power distribution, and informational entropy. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE663  Thermodynamics and Transport in Living Systems
A review of the thermodynamics of irreversible processes to study aging, open systems. Entropy analysis of living systems. Transport processes in living systems. A primer on energy generation and oxygen consumption in bariatric medicine. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE670  Process Synthesis
Optimization methods for flowsheet synthesis, including reactor systems, materials allocations and heat and separation system design. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE671  Aerosol Science and Engineering
Physics of aerosols: size and size distribution, mechanics of motion, agglomeration, diffusion, electrical effects and light scattering. Applications to sampling, deposition, and visibility. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE672  Design of Particulate Pollution Control System
Mechanical collectors, filters, scrubbers, electrostatic precipitators, and advanced concepts. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CHE673  Computers in Chemical Engineering Design
To train chemical engineers to solve complex chemical engineering problems using various software programming tools BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CHE675  Particulate Processes
The fundamentals of aerosol behavior are outlined, and engineering applications and environmental impact of aerosols are presented. Prereq.: Transport Phenomena, mathematics and physical chemistry. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00
Chemical Engineering

20CHE676
Colloid Science and Engineering
This course will introduce colloid science and the surface phenomena that are key to understanding the physics and chemistry of colloids. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE680
Process Simulation
The description and analysis of chemical and physical processes by the development and manipulation of appropriate mathematical models. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE683
Digital Control of Engineering Processes
Supervisory and direct digital control, theory of sampled-data system, Z-transforms analysis, design of digital algorithm. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE686
Characterization of Powdered and Porous Materials
Characterization of particulate solid materials in terms of size, distribution and shape. Special emphasis on characterization of internal structure of porous solids. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE687
FRACTALS IN CHE
FRACTALS IN CHE BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE688
Powder Technology
A number of industrial processes and products involve materials in the form of particles or powders. This course introduces the fundamentals of particle science and illuminates its industrial applications. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE689
Zeolites: Synthesis, Characterization and Applications
Focuses on the fundamentals of zeolites/molecular sieves science. The methods for the preparation and characterization of zeolites will be presented. Applications of zeolites on catalysis, separations and environmental science/engineering will be presented as well. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE690
Applied Separations
This course is a survey of important technologies including filtration, centrifugation, crossflow membrane microfiltration, evaporation, membrane contractor operations, extraction, distillation, adsorption, and crystallization. General principles, types of equipment available, scale-up methods and process economics are discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CHE691
Fundamental and Applications of CVD
Fundamental principles of CVD processes: CVD thermodynamics precursor transport, CVD kinetics, etc., and applications of CVD for advanced materials fabrication. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE692
Sol-Gel Science and Engineering
To present the fundamental physical and chemical principles of the sol-gel process with emphasis on applications of chemical engineering principles to study the various steps of the sol-gel process. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE693
Polymer Engineering Lab
Measurements of viscoelastic properties. Mechanical and rheological testing. Polymeric processing techniques. Prereq: 20CHE591. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

Chemical Engineering

20CHE694
Computational Chemistry for Engineers

20CHE695
Properties and Applications of Hydrogels
Properties of polymeric hydrogels and their uses for chemical separations and biomedical, pharmaceutical applications are examined including synthesis, swelling, solute transport, phase transitions, network structure. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20CHE696
Environmental Catalysis and Reaction Engineering
This class will highlight some of the most important problems and solutions that catalysis and reaction engineering can offer. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20CHE697
Bionanotechnology
The goal of this course is to introduce biology with an emphasis on the biomolecular interactions between DNA, RNA and proteins. This course will cover modern biotechnology and recent advances in bioprocessing through in-depth discussions of current methods for purification, high-throughput screening and nanotechnology used to study biology BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20CHE698
Molecular Engineering of Functional Nanomaterials
The goal of this course is to introduce advanced undergraduate and graduate students to modern methods of rational design of functional materials from different sub-disciplines of chemistry and engineering. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20CHE699
Surfactant Science and Engineering
This course will introduce key concepts in surfactant science and help develop a molecular level understanding of a rich variety of interfacial phenomena that is the key to the rationale design and formulation of many surfactant-based products and processes. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20CHE741
Advanced Thermodynamics
Fundamentals of thermodynamics, together with more advanced treatment and applications to chemical engineering problems. Credit Level: G. Credit Hrs: 3.00

20CHE743
Transport Phenomena II
See 20CHE643. Credit Level: G. Credit Hrs: 3.00

20CHE777
Chemical Reactor Design
Principles of chemical kinetics, heat and mass transfer applied to the design of homogeneous and heterogeneous chemical reactors. Credit Level: G. Credit Hrs: 3.00

20CHE778
Fundamentals of Gas-Solid Reaction

20CHE796
Polymer Engineering
Fundamentals of polymer processing. Rheological behavior of polymeric materials. Prereq: 20MTSC794. Credit Level: G. Credit Hrs: 3.00
Chemical Engineering

20CHE796
Polymer Engineering
Fundamentals of polymer processing. Rheological behavior of polymeric materials. Prereq: 20MTSC794. Credit Level: G. Credit Hrs: 3.00

20CHE797
Polymer Viscoelasticity
The nature of linear viscoelasticity. Dynamic testing techniques. Modeling and phenomenology of viscoelastic response. Prereq: 20MTSC794. Credit Level: G. Credit Hrs: 3.00

20CHE800
MS Research in Chemical Engineering
1-15 GR.CR. Credit Level: G. Credit Hrs: 1.00-15.00

20CHE824
ADVANCED HAZARD WASTE TREATMENT
3-4 gr.cr. Credit Level: G. Credit Hrs: 3.00-4.00

20CHE853
Biotechnology
The goal of this course is to introduce biology with an emphasis on the biomolecular interactions between DNA, RNA, and proteins. The course will cover modern biotechnology and recent advances in bioprocessing through in-depth discussions of current methods for purification, high-throughput screening, and nanotechnology used to study biology. Credit Level: G. Credit Hrs: 3.00

20CHE860
Master of Engineering Capstone Project
Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20CHE870
Seminar
1 gr.cr. Credit Level: G. Credit Hrs: 1.00

20CHE871
Thesis
Research for the Master of Science thesis. Offered each qtr. Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

20CHE881
Selected Topics in Chemical Engineering
Advanced material not covered elsewhere, including equilibria, rate processes, and separations. Credit Level: G. Credit Hrs: 3.00

20CHE882
Selected Topics in Chemical Engineering
See 20-CHE-881. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CHE883
Selected Topics in Chemical Engineering
See 20-CHE-881. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CHE900
PhD Research in Chemical Engineering
Offered each qtr. Credit Level: G. Credit Hrs: 1.00-15.00

20CHE921
Teaching Methodology in Chemical Engineering
To enhance students ability in teaching and communication applicable to the chemical engineering profession. Credit Level: G. Credit Hrs: 1.00

20CHE971
Dissertation
Research for the PhD dissertation. Offered each qtr. Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

Chemical Engineering

20CHE972
Special Projects in Chemical Engineering
Investigations of special problems other than theses. Credit Level: G. Credit Hrs: 1.00-15.00

20CHE973
Readings
Directed individual study of specialized topics not covered in other courses. Credit Level: G. Credit Hrs: 1.00-15.00

Chemical and Materials Engineering

20CME100
Introduction to CME
An introduction to the CME Department faculty, staff, organizations and an introduction to the field of chemical and materials engineering. Lectures include ethics topics, team projects in creative problem solving, and introduction to the Co-op Program. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CME101
Introduction to CME II
Introduction to CME II will focus on specific and detailed examples of Chemical and Materials Engineering fields of study. Students will have individual technical contact with faculty and industrial personnel. Voluntary plant tours will be offered throughout the quarter BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CME110
Technical Laboratory I
An introduction to laboratory techniques and equipment, necessary for characterization, development and design of chemical and materials processes. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CME200
Biology for Engineers
Fundamentals of biology with the emphasis on applications for engineering including energy production and transport processes in living systems, nanobiology, controlled drug delivery, artificial organs, tissue engineering, genomics, proteomics and bioinformatics BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CME210
Undergraduate Seminar
Seminars given by faculty, industry, and co-op employers to make students more knowledgeable in their field of study, and to enlighten them as to work opportunities and responsibilities BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CME279
Experimental Nanoscale Science and Technology
To introduce students to experimental nanoscale science and technology, including carbon nanotube synthesis, nanotube sensor fabrication and characterization, quantum dot characterization, and gold nanoparticle fabrication and characterization. The experimental techniques learned in this course can be applied to industrial problems and also used as a foundation for performing research in the area of nanoscale science and technology. BoK: NS., SE. Credit Level: U. Credit Hrs: 3.00

20CME300
Properties of Materials I
Structure and property relationships of engineering materials will be explored. Polymer and colloidal systems and their associated properties and structure will also be emphasized. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CME376
Nature and Properties of Materials
Properties of engineering materials; atomic bonding; crystal systems; electron transport in solids; metal alloys; deformation of metals; cold working and annealing; polymers; ceramic materials. Ea. Qtr. 3 lec. Prereq: 15CHEM103. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00
Chemical and Materials Engineering

20CME382
Basic Thermodynamics
Fundamental laws and concepts of classical thermodynamics; thermodynamic functions; properties of pure substance. Ea. Qtr. Prereq: 15MATH264. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20CME385
Basic Heat Transfer
Fundamental concepts of heat transfer including conduction, convection, and radiation. Ea. Qtr. Prereq: 15MATH273. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20CME600
Introduction to Biomembranes
An introduction to the study of biological cell membranes including a discussion of the organization and function of lipid bilayers and membrane channels in living systems and the nature of diffusional processes across cell walls. Topics will include differences between animal and bacterial cells, structure of membrane proteins and carbohydrates, carrier-mediated diffusion, chemical and electrical gradients for transport, G-protein coupled receptors and drug targeting, and experimental and simulation methods of study. Suitable for senior undergraduate and graduate students in engineering, materials science, chemistry, life sciences, pharmacy, and medicine. Required course for new graduate students enrolled in the NSF IGERT program on Bio-Applications of Membrane Science and Technology. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20CME700
Introduction to IGERT Research
Graduate students admitted to the NSF IGERT program will participate in a summer laboratory rotation prior to the start of their first academic year in their doctoral program. The IGERT student will spend three weeks in the laboratory of an IGERT faculty member on an approved research area prior to selecting an IGERT dissertation advisor. During that time, the IGERT student will have an opportunity to learn about the research area and have experience working on the project under the direction of the IGERT faculty member and under guidance of other graduate students and postdoctoral student assigned to the laboratory. Prereq.: Permission of the Instructor. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

20CME701
Introduction to IGERT
Introduction to the IGERT program on Bioapplications of Membrane Science and Technology. Discussion of laboratory skills, safety, lab notebooks, critical thinking, problem-solving techniques and laboratory trouble-shooting, technology transfer, and presentation methods. Required course for new graduate students enrolled in the NSF IGERT program on Bio-Applications of Membrane Science and Technology. Credit Level: G. Credit Hrs: 1.00

20CME702
IGERT Seminar
1 gr. credit Aut, Win, Spr. (credit received at the end of the Spring Quarter) Research presentations by students enrolled in IGERT program and faculty advisors. Invited speakers on IGERT related topics. Required course for new graduate students enrolled in the NSF IGERT program on Bio-Applications of Membrane Science and Technology Credit Level: G. Credit Hrs: 1.00

Computer Science

20CS110
Introduction to Computer Science
Introduction to various aspects of the computing discipline including: critical analytical skills and underlying ideas; survey of some core areas of CS; introduction to the computing environment using MATLAB; and information about the profession, prospects, and general academic skills. Enrollment limited to CS majors. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CS112
Fundamentals of Programming
Top-down program design; break problems into functions and identify needed control structures; declare and employ basic MATLAB data types particularly numbers, strings, 1-dimensional arrays and symbolic variables; create and use functions. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS121
Computer Science I
Introduction to computer science with emphasis upon structured and object-oriented programming, algorithm design, and problem-solving. Currently C++ is used as the computer language. Prereq: 20ECES150, 20ECES151. BoK: QR, Credit Level: U, G. Credit Hrs: 4.00

20CS122
Computer Science II
Introduction to classes and objects, multi-dimensional arrays, stacks and queues, and abstract data types. Students completing the course successfully should be able to program in the language studied (C++) using general programming principles taught in the course. Prereq: 20ECES121. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS124
Accelerated Computer Science I and II
Accelerated coverage of material in Computer Science I - II for students with significant programming experience. Course will cover language (currently C++), problem solving, top-down design, abstract data types, stacks and queues. Requires satisfactory score on dept's placement exam to enroll. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20CS127
Cooperative Learning for Computer Science 1
Students will participate in guided group work which complements the Computer Science 1 curriculum. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CS128
Cooperative Learning for Computer Science 2
Students will participate in guided group work which complements the Computer Science 2 curriculum. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20CS130
Introduction to Formal Logic
Propositional logic, including definitions and relations to circuits. Formal proofs in propositional logic, soundness, and completeness. Introduction to first order logic, with emphasis upon describing knowledge and requirements. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS228
Data Structures
Data structures, such as stacks, queues, trees, and graphs. Introduction to hashing, sorting, searching, and complexity of algorithms. Practice implementation of the concepts of the data structures and encapsulation of structure and behavior of data types. Prereq: 20ECES122. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS229
Software Development
Techniques of program design and software engineering, particularly, object-oriented design. Prereq: 20ECES228. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20CS271
Discrete Computational Structures I
Discrete Computational Structures I introduces discrete mathematical topics in the context of CS: mathematical induction, sets, propositional logic, relations and functions, algorithm analysis, graph theory & combinatorics, and discrete probability. First of 2-course sequence. Prereq: 20CS122, 15MATH252. BoK: QR. Credit Level: U. Credit Hrs: 3.00
Computer Science

20CS327
Discrete Computational Structures II
Discrete Computational Structures II: the second in series; continues to introduce discrete mathematical topics in CS, including mathematical induction, sets, propositional logic, relations & functions, algorithm analysis, graph theory & combinatorics and discrete probability. Prereq: 20CS271, 20CS228. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS311
Introduction to Computer Systems
Students will gain an understanding of the hardware organization and instruction set of a computer; the internal data representation, addressing modes, I/O. Students will write programs at the assembly language level. Prereq: 20CS228. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS317
Assembler I
Assembler language programming on a PC. Organization of the hardware, including registers, memory, and microprocessors and I/O ports. Binary and hexadecimal arithmetic, assembler instructions processor status (flags), program control, the program stack, integer multiplication and division arrays and addressing modes. Prereq: 20ECES229. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS323
Functional & Logic Programming
Examination of one or more modern programming methodologies, such as functional programming and logic programming, plus languages to support these methodologies. Prereq: 20ECES229. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20CS332
Design and Analysis of Algorithms
Algorithm complexity analysis, algorithm design techniques, advanced data structures, and sorting techniques, polynomial and non-polynomial classes of problems. 3 lec. Prereq: 20ECES228. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS362
Pre-Junior Seminar in Computer Science
Assessment of student's professional development and planning for CS specialization. Review of careers in computer science. Duties and responsibilities of a computer professional. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20CS403
Organization of Programming Languages
Examination of organization of programming languages, particularly of their run time behavior. Comparison and formal study of various programming languages. Examples will be drawn both from traditional languages and from modern languages. Prereq; 20ECES323. Coreq: 20ECES317. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS454
Network Systems Programming
Principles, standards and programming environment for operating systems and inter-computer communications. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS471
Design and Analysis of Algorithms I
Introduction to the study of algorithms, emphasizing general design strategy and both theoretical and practical analysis of their efficiency. Prereq: 20ECES323. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS472
Design and Analysis of Algorithms II
See 20ECES471. Prereq: 20ECES471. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20CS505
Special Studies
Requirements individually arranged including 700-level courses for

H=University Honors course.
20CS583
Honors Research Experience in Virtual Reality
BoK: QR. Credit Level: U. Credit Hrs: 2.00-3.00

20CS595
Special Topics in Computer Science
In-depth study of designated area of Computer Science. Topics to be decided by instructor. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS597
Wireless and Mobile Networking
Basic concepts for wireless communication of both voice and data information. Many underlying system issues related to mobility support and channel allocation will be covered. Wireless communication using satellites will also be described. Discussions on Ad Hoc and sensor networks will also help understand why they are useful. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20CS599
Readings in Computer Science
Readings in Computer Science BoK: NA. Credit Level: U. Credit Hrs: 1.00-9.00

20CS602
Programming for Artificial Intelligence
Introduction to programming in languages such as LISP and Prolog which are important in the construction of expert systems, in dealing with “fuzzy” measures of uncertainty, and in other applications of artificial intelligence. Experience in writing programs in these languages. NOTE: This course is intended primarily for graduate students who did not study functional and logic programming as undergraduates. It should normally not be taken by students who have taken 20ECES323 Programming Languages and Methodologies. It does not fulfill any computer science requirements for the BS degree. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

20CS615
Computer Arithmetic
Examination of both the physical and the algorithmic implementations of arithmetic by digital computers: digital logic and technologies data representation, memory organization and hierarchies, and design and implementation of CPU operations. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS620
The UNIX Operating System
The UNIX operating system as a multi-user, multiprocessing system; shell programming; utilities and tools of UNIX. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS621
Mathematical Logic I
Propositional and first order logic. Proof systems, such as Hilbert-style proofs, natural deduction systems, or resolution proofs. Compactness, completeness, and model theoretic techniques. Prereq.: Some 600-level theoretical math or computer science course. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS624
Mathematical Logic II
Continuation of Mathematical Logic I. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS625
Data Encoding
Theory and implementation of encryption, authentication, data integrity and compression algorithms. Prereq: 15MATH410. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS626
Formal Software Verification
An introduction to formal hardware and software verification. The course will be applied emphasizing verification using a particular system. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.
Collaborative Computing

Languages, toolkits, technology and human-computer interaction issues related to collaborative computing (C/S groupware, Internet, and/or intranet). BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

Computer Science

20CS670 Theory of Automata and Formal Languages I
An overview of automata theory and the theory of computation. Regular languages and finite state machines; deterministic and non-deterministic automata. Context free languages. Turing machines and the halting problem; Godel numbering and universal Turing machines. The classes P and NP. Prereq: 20ECES228, 15MATH410. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS671 Design and Analysis of Algorithms I
An introduction to the study of algorithms. Analysis of computing time, asymptotic notation and generating functions. Strategies for designing algorithms: Divide-and-conquer, Greedy method, Backtracking, etc. Further topics such as techniques for algebraic manipulations, lower bound theory, NP-Complete problems, and parallel algorithms. Prereq: 20ECES228, 20ECES229. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS672 Design and Analysis of Algorithms II
An introduction to the study of algorithms. Analysis of computing time, asymptotic notation and generating functions. Strategies for designing algorithms: Divide-and-conquer, Greedy method, Backtracking, etc. Further topics such as techniques for algebraic manipulations, lower bound theory, NP-Complete problems, and parallel algorithms. Prereq: 20ECES228, 20ECES229. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS675 Parallel and Distributed Systems
Design and construction of software for parallel and distributed environments. Communication protocols, security and integrity, and fault-tolerance. Emphasis on language constructs and operating systems for parallel and distributed processing. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS679 Network Programming Lab
Computer network systems and Web server administration. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

20CS688 Introduction to Wireless and Mobile Networks
Basics of wireless and mobile networks, US wireless and mobile systems infrastructure; fundamentals of cellular systems; channel utilization schemes; Advanced Mobile Phone System; Global System for Mobile Communications, Personal Communication Services; satellite-based systems BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS690 Special Topics in Computer Science
Topics of current interest to faculty and students. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS694 Advanced Programming Concepts
Treats programming concepts, especially those needed for upcoming internet, security, graphics, and stream applications. Topics include: exception handlers, control abstractions and applications to streams, co-routines, demand- driven computation, interfaces substitution for multiple inheritance, content handlers, protocol handlers, applications of public key cryptosystem, clients and servers, remote method invocation, uniform data base interfaces, and reflection. Prereq: 20ECES403, 20ECES429. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20CS701 Computer Science Seminar
Required of all full-time graduate students. Offered in Fall Quarter. Organization; local and visiting speakers. 1 lec. Credit Level: G. Credit Hrs: 1.00
Computer Science

20CS702
Computer Science Seminar
Required of all full-time graduate students. Organization, local, and visiting speakers. Offered in Winter Quarter. 1 lec. Prereq: 20ECE7501. Credit Level: G. Credit Hrs: 1.00

20CS703
Computer Science Seminar
Required of all full-time graduate students. Organization; local, and visiting speakers. Offered in Spring Quarter. 1 lec. Prereq: 20ECE7502. Credit Level: G. Credit Hrs: 1.00

20CS710
Practical Experience
This course is designed to provide the CS graduate student research experience either on campus or off campus in industry. The advising professor approves the suitability of the work experience and employment period, and can suggest alternate ways of meeting this requirement. Credit Level: G. Credit Hrs: 1.00

20CS717
Type Systems for Programming Languages
Fundamental type disciplines in programming language design and implementation, emphasizing the use of rigorous mathematical methods in programming language studies. Subtyping, polymorphism and effects. Prereq: 20ECE7403, 20ECE7670. Credit Level: G. Credit Hrs: 3.00

20CS723
Topics in Artificial Intelligence
Introduction to varying topics in artificial intelligence. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS724
Logic in Artificial Intelligence
Connections between formal logic and artificial intelligence. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS727
Uncertainty in Artificial Intelligence
Computational models for management of uncertainty. 3 lec. Prereq: 20ECE7634, 15MATH361. Credit Level: G. Credit Hrs: 3.00

20CS728
Internet Studies and Web Algorithms
Design issues and algorithmic questions arising from internet related technologies and emerging world-wide-web applications. New technologies such as web indexing and search engines, distributed internet caches, streaming technologies, and peer-to-peer application-level networking. Prereq: 20ECE7143, 20ECE7671. Credit Level: G. Credit Hrs: 3.00

20CS730
Principles of Programming Languages
Fundamental principles and results in programming language design and implementation. In particular we present a type system for a functional programming language and rigorously establish the soundness theorem for this type system. We also study type inference and program compilation, emphasizing the use of mathematical formalism in such studies. Credit Level: G. Credit Hrs: 3.00

20CS731
Distributed AI
Introduction to the latest topics and research activities in the area of distributed artificial intelligence. Philosophical foundations of distributed AI, algorithms for achieving different AI goals in distributed knowledge systems, and implemented systems that employ distributed AI. Prereq: 20ECE7633. Credit Level: G. Credit Hrs: 3.00

20CS735
Computer Security I
Protecting software and datafiles against theft, duplication, alteration, and falsification. One-key cryptosystems. Cryptosystems based upon computationally hard problems. Authenticity verification and zero-
Computer Science

20CS769
Computational Geometry
free-form curves and surfaces, and feature-based surface design. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS780
Self-Study Research
Research study not directly related to the thesis or dissertation. Self-study to determine the research area and topic. Credits may not be counted towards MS/PhD program. Credits arranged each quarter. Credit Level: G. Credit Hrs: 1.00-9.00

20CS781
Advanced Algorithms I
Formal treatment of algorithms and algorithms design methodologies; both sequential and parallel paradigms will be covered. Measures of parallel complexity. Program complexity and correctness proofs. Credit Level: G. Credit Hrs: 3.00

20CS782
Advanced Algorithms II
Continuation of Advanced Algorithms 1. Also selected topics from randomized algorithms, approximation algorithms, distributed algorithms, heuristic search and other modern design strategies. Credit Level: G. Credit Hrs: 3.00

20CS785
Advanced Topics in Computer Science
Advanced study in varying research topic areas. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS786
Computational Genomics
Computational analysis of biological sequences. Credit Level: G. Credit Hrs: 3.00

20CS792
Algebraic Cryptosystems
Current status of developing and defeating multivariate cryptosystems for transmitting data securely over the Internet with the help of a public key. Tame Transformation systems (TTM), Hidden Field Equations (HFE), SF/Flash, Vinegar and Oil systems, Matsumoto Imai Plus-Minus systems. Prereq: 15MATH597. Credit Level: G. Credit Hrs: 3.00

20CS794
Research Seminar in Computer Science
3 lec. Credit Level: G. Credit Hrs: 3.00

20CS796
Solid Modeling
Introduction to the field of solid modeling. Examination of the basic elements and structures that support solid modeling systems. Mixture of industrial experience, academic ideas, and current research. Study of modeling algorithms, nonmanifold operations, and geometric representation is the focus. 3 lec. Credit Level: G. Credit Hrs: 3.00

20CS797
Wireless and Mobile Networking
Basic concepts for wireless communication of both voice and data information. Many underlying system issues related to mobility support and channel allocation will be covered. Wireless communication using satellites will also be described. Discussions on Ad Hoc and sensor networks will also help understand why they are useful. This course requires a survey of recent information on one specific topic. A group simulation project will require implementation of a concept in wireless technology Credit Level: G. Credit Hrs: 3.00

20CS798
Performance Evaluation
Performance evaluation of computer systems and computer networks, including three major analytical techniques such as queuing theory, simulation modeling, and experimental methods. Prereq: 20ECES619. Credit Level: G. Credit Hrs: 3.00

Computer Science

20CS821
Pattern Recognition
Fundamental techniques for classifying patterns from their measurements; feature selection and extraction Credit Level: G. Credit Hrs: 3.00

20CS829
Queueing Systems and Applications
Basic theoretical modeling and applications of queuing systems. Topics include review of probability theory, statistics, and random processes, generating functions, Laplace and z-transforms; M/M/1, M/M/m, M/G/m, G/G/1, and G/G/m queues, queuing networks; priority priority queuing, and computer simulation techniques. Prereq: 20ECES619, 20ECES798. Credit Level: G. Credit Hrs: 3.00

20CS831
Ad Hoc and Sensor Networks
Ad hoc networks, sensor networks, potential applications, broadcasting, multicasting, geo-casting, Wireless LANs and PANs. Impact of directional antennas, security and heterogeneous networks. Prereq: 20ECES797. Credit Level: G. Credit Hrs: 3.00

20CS842
Graph and Network Algorithms
Graph and network algorithms, both classical ones and ones from current research. Generalizations to matroids. Prereq: 20ECES543. Credit Level: G. Credit Hrs: 3.00

20CS846
Advanced Mobile Computing and Networking
Base station subsystem; routing; media access control; power and error control; handoff policies; channel allocation; wireless LAN; mobile computing; applications; future directions in mobile networks. Credit Level: G. Credit Hrs: 3.00

20CS860
Master of Engineering Capstone Project
Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20CS865
Advanced Computer Networks
This course will introduce several advanced topics related to computer networks. Topics will be related to various random access protocols, routing and transport protocols, and quality of service issues. Performance issues will be emphasized. Issues related to Internet and mobile and wireless networks will be discussed. Credit Level: G. Credit Hrs: 3.00

20CS880
Doctoral Dissertation Proposal
Open to doctoral students only who have passed the qualifying examination. Only 9 credits of 20ECES880 will be counted toward course work requirements. Prereq.: Perm. of student's adviser. Credit Level: G. Credit Hrs: 1.00-9.00

20CS888
MS Project
Part-time master's degree students who are pursing the project option. The project option is not available to full time students. Cr. arranged ea. qtr. Credit Level: G. Credit Hrs: 1.00-6.00

20CS889
Thesis or Dissertation Research
Full time master's and all doctoral students. Credit Level: G. Credit Hrs: 1.00-19.00

20CS892
Independent Study
Individual advanced study not directly connected with thesis or dissertation. Cr. arranged ea. qtr. Limits of 3 cr. for MS, 6 cr. for Ph.D. Credit Level: G. Credit Hrs: 1.00-6.00
INTRODUCTION TO MECHANICS OF COMPOSITE STRUCTURES
Intro to the macromechanical analysis of anisotropic composite structures, governing equations, strength and stiffness and failure envelopes. Analysis of builtup composite structures. Credit Level: G. Credit Hrs: 4.00

DESIGN OF ROBUST MULTIVARIABLE CONTROL SYSTEMS
Basic course in robust multivariable control design and analysis, realistic design applications, transfer functions, uncertainty formulation, optimal control and model order reduction techniques. Credit Level: G. Credit Hrs: 4.00

ADVANCED TOPICS IN RELIABILITY
Advanced topics in systems design in areas of reliability maintainability applied to systems design. Optimal probabilistic design, complex system analysis and design, software and human reliability. Credit Level: G. Credit Hrs: 4.00

ELECTROMAGNETIC COMPATABILITY (EMC)
Legal and market driven requirements for achieving electromagnetic compatibility, modeling and predicting EMC, compliance with regulations and system design methodologies. Basic EMC design in components, signal spectra and transmission lines. Credit Level: G. Credit Hrs: 4.00

DAGSI AEROSPACE SEMINAR
A weekly series of seminars in Aerospace Engineering, control theory, aerodynamics, propulsion, structures, composite materials and sensors. Credit Level: G. Credit Hrs: 1.00

Introduction to Electrical and Computer Engineering
An introduction to the fundamental engineering principles of digital systems and to ethical, social, economic & safety issues in science and engineering. Students are introduced to faculty and facilities and helped to identify careers in ECE, and to strengthen problem solving skills. Coreq: BoK: NA. Credit Level: U. Credit Hrs: 1.00

Introduction to Electrical and Computer Engineering Lab
An introduction to fundamental engineering principles including digital systems, optics, digital signal processing and communications and robotics through hands-on experimental activities. Coreq: 20EECE150. BoK: NA. Credit Level: U. Credit Hrs: 2.00

Introduction to Digital Design
Theory and practice of digital system design; combinational logic, synchronous sequential circuits, components & technologies, digital design processes including requirements generation, design & verification using HDL modeling & simulation, hardware synthesis, digital test design. BoK: QR. Credit Level: U. Credit Hrs: 4.00

Software Methods I
Introduction to software methods for solving engineering problems. Emphasis is on the software development process, preparing abstraction in the software development process, and data structures to produce maintainable software programs. Prereq: 20EECE180. BoK: QR. Credit Level: U. Credit Hrs: 4.00

Network Analysis I

Network Analysis II
Transient solutions and steady-state solutions for time-varying forcing functions. Use of phasors to analyze networks and sinusoidal forcing functions. Impedance, power; two-ports networks. 4 lec. Prereq: 20EECE250, BoK: QR. Credit Level: U. Credit Hrs: 4.00

Microsystem Design Laboratory
Introduction to microprocessors and their uses. The special features of microprocessors: the stack, interrupts, input ports, output ports, and displays. The usage of microprocessors: data manipulation and interfacing. 2 lec, 4 lab. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Microsystem Design and Interface

Signals and Systems I
An introduction to the fundamentals of signals and systems and the computational methods for computer-aided system analysis design. 4 lec. Prereq: 20EECE251. BoK: QR. Credit Level: U. Credit Hrs: 4.00

Software Methods II
Introduction to intermediate and advanced software methods for solving engineering problems. Emphasis is on the software development process, preparing abstraction in the software development process, and data structures to produce maintainable software programs. Prereq: 20EECE180. BoK: QR. Credit Level: U. Credit Hrs: 4.00

Digital System Design Laboratory
Implementation of digital systems including combinational logic, synchronous sequential circuits, simple computers, ALUs, memory, controllers and I/O interfaces. 2 lec., 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

Digital System Design Laboratory for Computer Science Majors
Implementation of digital systems including combinational logic, synchronous sequential circuits, simple computers, ALUs, memories, controllers and I/O interfaces. 2 lec., 4 lab. NOTE: Should be taken by CS major only. Coreq: 20EECES235, BoK: NA. Credit Level: U. Credit Hrs: 2.00
Electrical and Computer Engineering

20EECE343
Signals and Systems I
An introduction to the fundamentals of signals and systems and the computational methods for computer-aided system analysis and design. 4 lec. Prereq: 20ECES251. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE344
Signals and Systems II
Representation and analysis of signals and systems parameterized by continuous-time. 4 lec. Prereq: 20EECE343. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE349
Measurement Laboratory
Computer controlled use of oscilloscope and spectrum analyzer. 2 lec., 4 lab. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE351
Electronics I
OP amp. systems, nonlinear circuits, linear amplifiers, bipolar and FET stages, differential and multistage amplifiers. 4 lec. Prereq: 20ECES251. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE352
Electronics II
Feedback systems, filters, oscillators, tuned amplifiers, MOS and bipolar digital circuits. 4 lec. Prereq: 20EECE351. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20EECE371
Basic Electric Circuit Analysis

20EECE429
Introduction to Operating Systems
Function, design, and integration of the parts of an operating system. Policies for scheduling and page-replacement. Non-preemptable resource allocation, deadlock, starvation, livelock, access control, and mutual exclusion and concurrency. 3 lec. Prereq: 20EECE326. 20EECE228. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE436
Computer Systems Modeling and Analysis
Principles and methods for modeling and simulation of computing systems and analyzing their performance. Prereq: 20ECES326. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE465
Electronics Laboratory
Measurement techniques and characterization of transistors and various ICs. 2 lec., 4 lab. Prereq: 20EECE349. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE466
Electronics Design Laboratory
Analog and digital circuit design projects with theoretical and experimental work to meet design specifications. 2 lec., 4 lab. Prereq: 20EECE352. 20EECE465. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE472
Practical Aspects of Building Energy Audits
Global warming represents one of the great problems confronting our civilization today. At the core of this problem is the massive generation of greenhouse gasses (GHGs) that result from the burning of fossil fuels. In our country approximately 40% of all our energy consumption is associated with the heating, cooling, and lighting of buildings, so increasing the efficiency of these processes is a prime target for reducing our GHG production. This course uses lecture-discussion and hands-on energy audits as a means of teaching students how to perform a basic assessment of ways to reduce GHG production for non-

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20EECE503  Electrical Engineering Senior Design Project
and design abilities. 9 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20EECE505  Special Studies
Requirements individually arranged including 700-level courses for
graduate school preparation. Available only to seniors with high
academic rank and upon approval of petition to faculty. Offered ea. qtr.
Cr. arranged. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00

20EECE531  Computer Engineering Senior Design Project
First of three quarter laboratory series in which students create a
significant product capitalizing on their prior four years of Computer
Engineering education. Each student selects a project adviser, and
works with him/her to select a design problem, identify the requirements
and specifications of the product, and design the product. Prereq.: Senior standing in computer engineering. 9 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20EECE532  Computer Engineering Senior Design Project
Continuation of 20EECE531. Completion of detailed design and
implementation of project. 9 lab. Prereq: 20EECE531. BoK: NA. Credit
Level: U. Credit Hrs: 3.00

20EECE533  Computer Engineering Senior Design Project
Continuation of 20EECE532. Complete the assembly and carry out
testing and integration of the project. 9 lab. Prereq: 20EECE532. BoK:
NA. Credit Level: U. Credit Hrs: 3.00

20EECE592  Database Design and Development
Database design with the Entity Relationship model. Relational data
model and database design. Physical storage techniques. Reliability
and recovery. Concurrency. 3 lec. Prereq: 20EECS228. BoK: QR.
Credit Level: U. Credit Hrs: 3.00

20EECE593  Advanced Database Design
Database design with the Extended Entity Relationship Model and
Unified Modeling Language. Mapping conceptual schemas to
relational, object-oriented, and object-relational logical schemas.
Prereq: 20EECS592. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE607  Introduction to Biomedical Microsystems
Introduction to biomedical Microsystems, including micro total analysis
systems, biochips, cell engineering applications, and microfluidics. BoK:
QR. Credit Level: U. Credit Hrs: 3.00

20EECE608  Fundamentals of MEMS
Introduction to MEMS, driving principles for MEMS, new MEMS
materials, fundamental MEMS microstructures, microtransducers and
microactuators, MEMS-based sensors, microsystems and control,
circuit integration and system partitioning, packing, assembly and
testing. Prereq: 20EECE482. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20EECE610  Database Management Theory
Database formal architectures emphasizing modeling and theory.
Formal methods for database architectures; relational, hierarchical,
object, object-relational and network; data dependencies, normalization,
integrity constraints, concurrency, heterogeneous systems. Prereq: 20EECS323, 15MATH352. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20EECE611  Microwave Communications
A study of microwave communication systems, passive microwave
components and circuits, amplifiers, and oscillators. 3 lec. Prereq:
20EECE473, 20EECE474. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE612  Microwave Communications Laboratory
An experimental study of microwave components, circuits, amplifiers
and oscillators. 2 lec., 4 lab. Prereq: 20EECS611. BoK: QR. Credit
Level: U, G. Credit Hrs: 4.00

20EECE614  Photonic Information Processing Laboratory
Explore the fundamentals of photonic systems through the analysis and
characterization of optical and optoelectronic components. Free space
(standard bulk) optics and development of a simple image processing
system. Fiber optic systems and development of 2-channel wavelength
division multiplexed fiber optic communication link. 2 lec. 4 lab. BoK:
QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE616  Computer Systems Design
Design and analysis of computer systems and networks of computers.
Analytical and simulation methods used to determine design
requirements, specifications, and architectures. A simple computer is
designed and evaluated. 3 lec. Prereq: 20ECES326, 20ECES338. BoK:
Credit Level: U, G. Credit Hrs: 3.00

20EECE617  Embedded Systems
Embedded system design and development. High-level design tools,
system-level design, and designing for testability will be emphasized.
Pre-req: 20EECE326 and 20EECE429. OR permission of instructor.
Prereq: 20CS228. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE618  Microfabrication of Semiconductor Devices
Microfabrication processes and elements, epitaxial growth, oxidation,
thin film deposition, lithography, etching, doping, and process
integration. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE619  Introduction to Random Processes
This course will provide an introduction to random variables, stochastic
processes and stochastic modeling techniques. The first part of the
course will cover the fundamentals of random variables. The second
part will introduce stochastic processes and methods for their analysis
and estimation, leading into issues of modeling in the context of linear
systems. Markov processes and queueing theory. Prereq: 15MATH361.
BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE622  Introduction to Quantum Computing
Introduction to the rapidly growing field of quantum computing. Brief
overview including historical perspective, intro to qubit and tensor
product, examples of superdense coding and teleportation. Quantum
mechanics, computer science, intro to quantum gates and circuits,
quantum computers and their physical realizations. Prereq: 15MATH356, 15PHYS276. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE626  Communication Systems
Analog and digital modulation systems; noise, frequency, and time-
Credit Hrs: 3.00

20EECE628  Introduction to Nanoelectronics
Emerging technologies in nanofabrication and nanoscale electronic
deVICES. Nanolithography, nanometer 3D MOSFETs, carbon
nanotubes, spintronics, nanoscale and single electron transistors,
Electrical and Computer Engineering

20EECE628
Introduction to Nanoelectronics
quantum dots and computing, molecular electronics. BoK: NS. Credit Level: G, U. Credit Hrs: 3.00

20EECE629
Introduction to Operating Systems
Function, design, and integration of the parts of an operating system. Policies for scheduling and page-replacement. Non-preemptible resource allocation, deadlock, starvation, livelock, access control, and mutual exclusion and concurrency. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE630
Advanced Sensors Instrumentation and Computer I/O Design
Model-based system accountability and error analysis methods for computer systems for data acquisition, processing, and output distribution. 3 lec. Prereq: 20EECE351, 20EECE352. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE632
Digital Communications

20EECE636
Intelligent Systems
Intelligent systems can be characterized by the ability to (i) extract pertinent information from irrelevant details, (ii) to learn from examples and generalize this knowledge, and (iii) draw inferences from incomplete information. This course focuses on the underlying theory of Intelligent Systems. 3 lec. Prereq: 20EECE343. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE638
Nonlinear Dynamics and Intelligent Systems
Intelligent systems and their connection to nonlinear dynamics will be explored in this course. Concepts such as fuzzy logic and fuzzy controllers, recurrent neural networks will be introduced and their different applications will be considered. 3 lec. Prereq: 20EECES344. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE641
Silicon Semiconductor Microfabrication
Instruction and hands-on semiconductor processing in clean-room environment, including two sided wet and dry lithography for microelectronics, microsensors and MEMS (micromechanical systems), using surface and bulk "micromachining" for systems "on a chip." 2 lec., 4 lab. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE642
Digital Image Processing
Digital image characterization, discrete transforms, image enhancement, encoding, restoration, and reconstruction. 3 lec. Prereq: 20EECE645, 20EECES343. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE643
Electrical Machines Laboratory
Experimental evaluation and application of 1-phase and 3-phase induction, synchronous, and universal electric motors and their speed-torque load curves employing dynamometer measurements. Coreq: 20EECES654. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20EECE644
Digital Signal Processing Laboratory
Introduction to real-time digital signal processing. Designed to enhance the theoretical background learned in signal processing and communications courses by implementing algorithms in real-time and observing the results with the laboratory instruments. Student will gain

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20EECE662
Computer Control of Manufacturing Systems
An introduction to computer algorithms, architectures, and systems engineering for automatic factory control. Scheduling algorithms, dispatching algorithms. Re-order point (sic. kanban and JIT) algorithms. Manufacturing system classification for control algorithm selection. 3 lec. Prereq: 20ECES490. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE663
Industrial Control Laboratory
A computer-based laboratory emphasizing different control techniques used in industry including PIC and PLC control. This course is meant to bridge the student's theoretical knowledge with current industrial practice. Implementation of PID and PLC control algorithms on industrial controllers, PCs, and with specialized digital circuits. 2 lec., 4 lab. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE664
Analog Electronic Systems
Analog circuit fundamentals for signal conditioning and interfacing to microsensors; emphasis on circuit techniques useful in general analog design; op amps, comparators, noise, and nonlinear circuits. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE668
Microsensing for Instrumentation
Microsensing for instrumentation in space, industrial and medical applications. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE673
Antennas for Wireless Communication
A study of the theory and properties of various communication antennas covering the range from RF frequencies to millimeter wavelengths. Prereq: 20ECES473, 20ECES474, 20ECES611. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE674
Photonic Circuits and Systems
Circuits and systems incorporating high speed electronic devices, such as HEMTs and HBTs, with optical devices such as semiconductor lasers, modulators, and photodetectors. Optical receivers and transmitters, digital and microwave applications, configurations, tradeoffs, gain, bandwidth, noise, device structure, system integration. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EECE676
VLSI Design Automation
VLSI design automation, layout synthesis and logic synthesis, partitioning, placement and routing algorithms, combinational and sequential circuit synthesis. Course includes laboratory session and software development. Prereq: 20ECES680. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE678
Micro/Nano Fluidic Biochip Laboratory
An introduction to design, fabrication, and character- ization of micro/nano fluidic lab-on-a-chip (LOC) devices and biochips. Laboratory topics in- clude device design and modeling, mask layout and design, thick resist lithography, polymer fabrica- tion and fluorescence characterization. Perm of Instructor. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

20EECE680
Physical VLSI Design
Introduces techniques and tools for scalable VLSI design and analysis. Emphasis is on physical design (layout, placement, and routing) and on performance analysis (area, speed, and power). Includes extensive lab experiments and hands-on usage of CAD tools. 3 lec., 4 lab. Prereq: 20ECES338. BoK: QR. Credit Level: U, G. Credit Hrs: 4.00

20EECE681
VLSI System Design
Systems-level design of VLSI circuits, from high-level specifications through physical design and layout. Emphasis on requirements

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20EECE702
Electrical and Computer Engineering Seminar
Required of all full-time graduate students. Organization, local, and visiting speakers. Offered in Winter Quarter. 1 lec. Prereq: 20ECS701. Credit Level: G. Credit Hrs: 1.00

20EECE703
Electrical and Computer Engineering Seminar
Required of all full-time graduate students. Organization, local, and visiting speakers. Offered in Spring Quarter. 1 lec. Prereq: 20ECS702. Credit Level: G. Credit Hrs: 1.00

20EECE707
Biomedical MEMS
Applications of Microelectromechanical Systems (MEMS) to medicine and biology, including microfluidic biochips and their fabrication, biosensors, cell handling, material biocompatibility, and packaging. Credit Level: G. Credit Hrs: 3.00

20EECE708
Optimization by Vector Space Methods I
This course will introduce students to functional analysis and infinite dimensional optimization with applications to least squares estimation, optimal control and differential games. Prereq: 20ECES733, 15MATH506. Credit Level: G. Credit Hrs: 3.00

20EECE709
Optimization by Vector Space Methods II
Continuation of 20ECS708. Prereq: 20ECS708. Credit Level: G. Credit Hrs: 3.00

20EECE710
Practical Experience
This course is designed to provide the ECE graduate student research experience either on campus or off-campus in industry. This is required of all MS and PhD students. The advising professor approves the suitability of the work experience and employment period, and may also waive this requirement. Credit Level: G. Credit Hrs: 1.00

20EECE711
Millimeter Wave Electronics
A study of passive microwave components and circuits, resonators, power dividers, filters, theory and design of ferrimagnetic components, active microwave circuits. 3 lec. Prereq: 20ECS611. Credit Level: G. Credit Hrs: 3.00

20EECE712
Introduction to Optical Computing
Fundamentals of optical computing. Basic principles of optics; analog and digital optical computing. Potential role of optics in implementation of computing systems. Credit Level: G. Credit Hrs: 3.00

20EECE714
Advanced Microfabrication of Compound Semiconductor Devices
Advanced topics in device microfabrication, in particular dealing with compound semiconductors. 3 lec. Prereq: 20ECS618. Credit Level: G. Credit Hrs: 3.00

20EECE715
Random Processes and Stochastic Models
Introduction to random variables, stochastic processes and stochastic modeling techniques. The course covers fundamentals of random variables, an introduction to stochastic processes and methods for their analysis and estimation, leading into issues of modeling in the context of linear systems, queuing theory and Markov processes. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE716
Semantic Web
Managing data and knowledge embedded in the Semantic Web. Topics: World Wide Web and how Semantic Web may store semantically identified data. Loosely structured data is given well-defined meaning better enabling computers and people to work in cooperation. Prereq: 20ECS651. Credit Level: G. Credit Hrs: 3.00

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20EECE722
Biosensors and Bioelectronics
Fundamentals of biosensors, bioelectronics, physi-cochemical transduction mechanisms for biotransduction, molecular recognition and bio-immobilization—ion principles and procedures, coupled mass transport kinetics of enzyme-catalyzed and molecular binding reactions, fundamentals of electrochemistry. Prereq: 20ECES607, 20ECES608. Credit Level: G. Credit Hrs: 3.00

20EECE733
Foundations of Applied Systems
Introduction to basic theoretical concepts and computing tools required for the study of Applied Systems. Mathematical characterizations of applied systems are used for understanding and predicting the behavior of the system and for designing mechanisms able to effectively control the system behavior. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE734
Applied Systems Theory
The manipulation of mathematical models is an integral part of the systems engineering methodology. This course develops and examines the basic structural characterizations of models frequently used in the study of Applied Systems. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE738
Parallel and Distributed Numerical Methods
Methods (algorithms, data structures, performance analysis) for parallel and distributed computational solutions of mathematical methods used in engineering and science. Includes recent developments in parallel and distributed numerical computation methods, perturbation methods, and methods for sparse linear and nonlinear systems. Credit Level: G. Credit Hrs: 3.00

20EECE741
Stochastic Decision & Control Processes
Fundamental concepts and modeling techniques of decision and control problems for discrete-time Stochastic Systems, and the use of Dynamic Programming. Credit Level: G. Credit Hrs: 3.00

20EECE748
Advanced Image Processing
Image segmentation, representation and description, recognition and interpretation, reconstruction from projection, mathematical morphology, facet model, and texture. 3 lec. Prereq: 20ECES642. Credit Level: G. Credit Hrs: 3.00

20EECE750
Semiconductors and Heterojunctions
Physics of elementary and compound semiconductors and their epitaxial growth on one another. Energy band structure and charge transport across heterojunctions. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE753
Special Topics in Quantum Computing
Advanced topics in quantum computing: quantum search algorithms; quantum fourier transform and its applications; quantum noise; quantum error correction; quantum information theory. Quantum computers and their physical realizations. Prereq: 20ECES622. Credit Level: G. Credit Hrs: 3.00

20EECE754
Semiconductor Devices I
Semiconductor properties, carrier processes and transport, p-n junctions, and heterojunctions, Shottky barriers and ohmic contacts. Prereq: Introductory courses in semiconductor devices or solid state physics and electromagnetism. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE755
Semiconductor Devices II
Processes and operation of metal-insulator-semiconductor (MIS) structures, MOSFETS and MISFET transistors and bipolar transistors. 3 lec. Prereq: 20ECES754. Credit Level: G. Credit Hrs: 3.00

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20EECE757
Semiconductor Physics
Classification of solids, types of bonding, bonding in semiconductors, impurity bonding, electrons in solids, free electron theory, nearly free electron theory, semiconductor band structure, density of states, effective mass holes. 3 lec. Prereq: 20ECES758. Credit Level: G. Credit Hrs: 3.00

20EECE758
Quantum Mechanics
Fundamentals of quantum mechanics, wave functions, Schroedinger equations, energy level quantization, energy band structure and their applications to microelectronics. Prereq.: An undergraduate course in modern physics. 3 lec. Prereq: 15PHYS276. Credit Level: G. Credit Hrs: 3.00

20EECE761
High Speed Electronic Devices
An introduction to compound semiconductor heterojunction devices and their characteristics. Energy band structure design and operational characteristics of heterojunction bipolar and field effect transistors (HEMT, HFET). 3 lec. Prereq: 20ECES750. Credit Level: G. Credit Hrs: 3.00

20EECE762
Low-Power VLSI Circuit Design
Students will learn to design low-power VLSI circuits for portable electronics and high performance chips exceeding power dissipation limits. Prereq: 20ECES680. Credit Level: G. Credit Hrs: 3.00

20EECE767
Multi-user Communication Theory
The objective of this course is to study the physical-layer theory of multi-user communications. Emphasis is placed in multi-user detection, both optimal and suboptimal, for direct-sequence code-division multiple-access communications. Credit Level: G. Credit Hrs: 3.00

20EECE771
Applications of Microelectromechanical Systems
Applications of MicroElectroMechanical Systems (MEMS), including mechanical, electromagnetic, thermal, optical, chemical and biological. Prereq: 20ECES608. Credit Level: G. Credit Hrs: 3.00

20EECE773
Photonic Devices
Theory and design of devices and components for photonic circuits; introduction to the better-known applications. Photonic design concepts; using these concepts in system design where previously only electron devices might have been considered. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE774
Communication Networks
Fundamental concepts and key architectures in modern communication networks: overview of layered network structure, review of digital transmission fundamentals, typical transmission systems, telephone networks, peer-to-peer transmission controls, packet switching networks, resource sharing, ATM networks, TCP/IP and beyond. Prereq: 20ECES626, 20ECES632. Credit Level: G. Credit Hrs: 3.00

20EECE775
Millimeter Wave and Photonics Materials
Non-linear optics and materials, optical fiber waveguides, infrared-transmitting materials, oxide glasses, fluoride glasses, chalcogenide glasses. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE776
VLSI For Multi-Technology Systems
Introduction to VLSI design for electronic materials and device students. Basic principles of CMOS circuits, VLSI layout for standard CMOS and mix-technology systems. Simple digital and analog circuit design based on standard CMOS VLSI. Incorporation of MEMS and photonic device structures that can be monolithically integrated with CMOS circuitry. Prereq: 20ECES481, 20ECES482. Credit Level: G. Credit Hrs: 4.00

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20EECE776
**VLSI For Multi-Technology Systems**
Introduction to VLSI design for electronic materials and device students. Basic principles of CMOS circuits, VLSI layout for standard CMOS and mix-technology systems. Simple digital and analog circuit design based on standard CMOS VLSI. Incorporation of MEMS and photonic device structures that can be monolithically integrated with CMOS circuitry. Prereq: 20EECES481, 20EECES482. Credit Level: G. Credit Hrs: 4.00

20EECE780
**Self-Study Research**
Research study not directly related to the thesis or dissertation. Self-study to determine the research area and topic. Credits may not be counted towards MS/PhD program. Credits arranged each quarter. Credit Level: G. Credit Hrs: 1.00-9.00

20EECE783
**Introduction to Information Theory**
Information theory and statistics: data compression, channel capacity, Shannon entropy, rate distortion theory, Huffman and random coding. Prereq: 20EECES619. Credit Level: G. Credit Hrs: 3.00

20EECE784
**Advanced Semiconductor Lasers**
Physics of semiconductor lasers and their theory of operation. Device engineering, structure and performance characteristics of standard semiconductor laser structures, including advanced and tunable optoelectronic transmitters. Prereq: 20EECES648. Credit Level: G. Credit Hrs: 3.00

20EECE788
**High Performance Computing**
The study of high performance computing (HPC) and the techniques used in designing and implementing computationally intensive applications on HPC systems. High performance systems including traditional parallel supercomputers, Beowulf clusters, and FPGA based hardware accelerators will be discussed. The course will focus on parallelization and locality enhancement for computationally intensive applications in scientific simulation and image processing. Credit Level: G. Credit Hrs: 3.00

20EECE791
**Nonlinear Systems**
Phase plot, fundamental theory for ODE, Lyapunov theory, advanced Lyapunov theory, singular perturbation, and integrator backstepping. Credit Level: G. Credit Hrs: 3.00

20EECE793
**Advanced Software Engineering**
Introduces students to algebraic specification using PVS. Students learn advanced specification techniques and how to automate tools for verification. 3 lec. Prereq: 20EECES328. Credit Level: G. Credit Hrs: 3.00

20EECE795
**Introduction to Computer Architecture**

20EECE809
**Materials Characterization -- Structural**
Techniques for structural characterization of semiconductor materials, ceramics, and their surfaces, X-ray scattering, low energy electron diffraction (LEED), Rutherford Back Scattering (RBS), and electron microscopy. 3 lec. Credit Level: G. Credit Hrs: 3.00

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20EECE810
**Materials Characterization -- Optical**
Techniques for optical and other characterization of semiconductor materials, ceramics, and their surfaces, Ellipsometry, Raman photoluminescence, XPS, AES, SIMS, and Mossbauer absorption techniques. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE814
**Introduction to Multi-Agent Systems**
Current concepts in multi-agent systems including communications paradigms, multi-agent architectures, algorithms for multi-agent coordination, agent building tools, speech-acts, body-head structures, mobility and example applications. Credit Level: G. Credit Hrs: 3.00

20EECE816
**High-Level VLSI Synthesis**
Introduces the students to the concepts of high level VLSI synthesis. Synthesis at behavioral and register transfer levels will be covered. Includes topics in scheduling, register optimization, controller models, VHDL interpretation and linking with logic and physical VLSI design tools. Credit Level: G. Credit Hrs: 3.00

20EECE817
**Advanced VLSI Testing and Low-Power Design**
Important issues of VLSI testing and low-power design, especially for deep sub-micron, high clock rate, and high transistor count circuits are studied in this course. Students will learn research skills and establish a concrete, broad technical background for research. Prereq: 20EECES682, 20EECE762. Credit Level: G. Credit Hrs: 3.00

20EECE818
**Reconfigurable and Adaptive Computing**
Programmable logic - PLDs, CPLDs and FPGAs. Design of reconfigurable systems - architectural issues. Static and dynamic reconfiguration. Software environments and applications. Credit Level: G. Credit Hrs: 3.00

20EECE819
**Topics in VLSI Design**
Examination of the interaction between integrated circuit design and theoretical computer science. Algorithms for VLSI implementation. Silicon compilers. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE824
**Advanced VLSI/ULSI Architectures**
Advanced concepts in VLSI architecture design; CAD interactions; hardware fault tolerance; design for high performance. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE825
**Adaptive Signal Processing**
Introduction to adaptive filtering and its applications, and its relationship with linear prediction and Kalman filtering. Emphasis on adaptive FIR filtering algorithms and convergence aspect. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE826
**Recurrent Neural Networks**
Recurrent neural networks, unlike feed-forward networks, allow connections both ways between a pair of units. This advanced course focuses on the complementary points of view that have arisen to describe the properties of such networks. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE827
**Feedforward Neural Networks**
Rigorous analysis of the training and generalization performance of networks as a function of their architecture and size of the training data. Emerging paradigms which exploit existing domain knowledge and train incrementally are also examined. Credit Level: G. Credit Hrs: 3.00

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20EECE832 Advanced Physical Design Automation
Combinatorial optimization, circuit partitioning techniques, floor planning and placement for ASICs and DSM, routing algorithms, interconnection analysis and prediction. Prereq: 20ECES676, 20ECES332. Credit Level: G. Credit Hrs: 3.00

20EECE834 Digital Design Environments
Examines the issues in developing CAD tools for digital hardware design, and in integrating the tools into unified design environments. Topics include: design teams, hierarchy and abstraction, hardware description languages, compilation and translation techniques, design data bases and knowledge bases. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE837 Intelligent Control Systems
Introduction to intelligent control methods and their application to the monitoring and control of uncertain, complex dynamical systems. Neural control systems, fuzzy control systems, fault diagnosis. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE841 Advanced Decision Processes
Application of principles of probability and statistics to the design and control of engineering, economic and logistic systems in a random or uncertain environment. Emphasis is placed on Bayesian decision analysis. Credit Level: G. Credit Hrs: 3.00

20EECE843 Gallium Arsenide Integrated Circuits
Develops a theory of design, analysis and simulation of integrated circuits in gallium arsenide. Analytical and equivalent circuit models of active and passive devices are developed and used in circuit design. Three categories of monolithic integrated circuits are covered: digital, analog and microwave. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE847 Advanced Operating Systems

20EECE848 Microelectromechanical Systems for Actuation and Control
Theory and practice for research, design, development and analysis of MEMS, e.g., "on a chip," including integrated optics, surface micromachining and polysilicon for mechanical actuation, LIGA micromechanics, mathematical descriptions for micro-systems control. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE850 Biological Neural Systems
Introduction to the biological neural systems, biological vision systems with neural information processing models, models of complex neurons, reconstruction of neural networks, simulation of neural networks for spatial and temporal processing in applications such as vision. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE854 Complex Systems
Introduction to complex systems concepts with an emphasis on building geometric intuition. Specific applications, such as time-series prediction, iterated function systems for image compression, etc. will be emphasized. 3 lec. Prereq: 20ECES733. Credit Level: G. Credit Hrs: 3.00

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20EECE856 Multivariable Control
An advanced course in multivariable control theory, emphasizing state space and input/output approaches. Covers system identification, state/observer and output feedback design, optimal and robust control theory. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE857 Adaptive Control Systems
An introduction to adaptive control methods and their application to the identification and control of dynamical systems with parametric uncertainty. Several topics such as on-line parameter estimation, model reference adaptive robust adaptive control and implementation issues will be covered. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE858 Data Mining
Knowledge discovery in databases. Credit Level: G. Credit Hrs: 3.00

20EECE860 Master of Engineering Capstone Project
Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

20EECE864 Advanced Computer Architectures

20EECE867 Biomorphic Systems
This course aims to provide an introduction to recent developments in biomorphic engineering. The use of biologically inspired methods for engineering tasks such as computation, design, optimization, search, and assembly. Applications from computing, communications, robotics, controls, pattern recognition, and intelligent systems will be discussed. Credit Level: G. Credit Hrs: 3.00

20EECE868 Advanced Compiler Optimizations
Rigorous theory and practice behind advanced compiler optimization for emerging languages on emerging architectures. Optimizations that reduce the execution time and/or memory requirements of a program. Architecture independent and customized architecture dependent optimizations will be discussed. 3 lec. Prereq: 20ECES683, 20EECE865. Credit Level: G. Credit Hrs: 3.00

20EECE875 Robust Adaptive Control
Introduction to robust adaptive control design methodology. Introduction to the state space solution to H infinity optimal control problem. This solution is then extended to solve a special class of robust adaptive control problems. Prereq: 20ECES734. Credit Level: G. Credit Hrs: 3.00

20EECE877 Advanced Data Models and Query Optimization
Relational query processing and optimization techniques. Object-oriented database systems. Current research in object-oriented query processing. 3 lec. Prereq: 20ECES328. Credit Level: G. Credit Hrs: 3.00

20EECE880 Doctoral Dissertation Proposal
Opened to doctoral students only who have passed the qualifying examination. Only 9 credits of 20EECE880 will be counted toward course work requirements. Prereq.: Perm. of student's adviser. Credit Level: G. Credit Hrs: 1.00-9.00
Electrical and Computer Engineering

20EECE888
MS Project
Part-time master’s degree students who are pursuing the project option. The project option is not available to full time students. Cr. arranged ea. qtr. Credit Level: G. Credit Hrs: 1.00-6.00

20EECE889
Thesis or Dissertation Research
Full time master’s and all doctoral students. Credit Level: G. Credit Hrs: 1.00-19.00

20EECE890
Modern Displays - Materials, Strategies And Technologies
Current literature-based review of the frontiers of electronic display research and technology. Electrowetting, organic LED, micromirror, liquid crystal, and plasma technology, etc. Students will choose a group of papers, write a critical review and present a seminar on their study. Credit Level: G. Credit Hrs: 3.00

20EECE892
Independent Study
Individual advanced study not directly connected with thesis or dissertation. Cr. arranged ea. qtr. Limits of 3 cr. for MS, 6 cr. for Ph.D. Credit Level: G. Credit Hrs: 1.00-6.00

20EECE913
Modeling and Simulation of Biological Systems
Review of literature in challenging modeling and simulation problems of biological systems such as cell-to-cell communications. Study of behaviors such as quorum sensing in biological systems. Understand the modeling and simulation problems faced in efficiently and accurately representing biological systems. Credit Level: G. Credit Hrs: 3.00

20EECE915
Informal Semantic Models of Computer Languages
Several techniques for representing the formal semantics of computer languages will be examined. Representation of both static and dynamic semantics will be explored. Examples of semantic models for existing languages such as ML, Haskell, and VHDL will be covered. Prereq: 20ECES795. Credit Level: G. Credit Hrs: 3.00

20EECE918
System Identification
Introduction to system identification methods, their properties and their application. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE923
Novel Sources of Light for Optoelectronic Devices
Optical properties of porous Si, wide band-gap semiconductors, rare-earth doped materials and light emitting polymers. Device applications of light-emitting materials. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE925
Wide Bandgap Semiconductors and Devices
Review of basic properties of wide bandgap semiconductor materials; bulk growth of wide bandgap semiconductors; epitaxial growth; plasma-assisted etching; optoelectronic device applications; high power/temperature device applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EECE935
Biophotonics: Fundamentals and Advanced Devices
Topics in the use of photonics for biomedical research and biological materials for photonics devices. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

20EECE936
Photonic Devices Using GaN and Other Wide Bandgap Semiconductors
Study of GaN and related wide bandgap semiconductors for photonic device application. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

20EECE945
High Performance Distributed Computing
This course is devoted to the study of high performance distributed computing (HPDC) and the techniques used in designing and implementing HPDC systems. The course will cover a broad range of issues in distributed computing, parallel/distributed computing techniques that are applied to the solution of computationally intensive applications across networks of computers. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

20EECE947
Research in Computer-Aided Design of VLSI Systems
Ongoing and future research directions in computer-aided design of VLSI systems. Students will be able to critically study and analyze VLSI CAD research. Prereq: 20ECES676. Credit Level: G. Credit Hrs: 3.00

20EECE948
Selected Topics in Computer-Aided Design of VLSI Systems
Ongoing and future research topics in computer-aided design of VLSI systems. Upon the completion of this course, the students will be able to critically study and analyze VLSI CAD research. Prereq: 20ECES676. Credit Level: G. Credit Hrs: 3.00

20EECE963
Data Warehouse Design
Data warehouse design with conceptual data models and physical storage techniques. Credit Level: G. Credit Hrs: 3.00

20EECE975
Optimizing Programs Through Online Analysis
Distributed computing applications often require considerable tweaking to obtain optimal performance on each computing platform that it executes. The optimization of these applications can consume considerable time and efforts and even minor releases of the Operating System can require additional changes for optimal performance. This class will study recent efforts to build self-optimizing applications. In this term, we will focus our studies on optimizing networks and databases. Credit Level: G. Credit Hrs: 3.00

20EECE977
Parallel Discrete Driven Simulation
Study of PDES and the design problems of their implementation. The class will discuss both conservative and optimistic synchronization strategies. 3 lec. Prereq: 20ECES795. Credit Level: G. Credit Hrs: 3.00

20EECE982
Organic and Inorganic Light Emitters
Study of organic, inorganic and hybrid inorganic/organic light emitters. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

20EECE983
Organic Light Emitting Materials and Devices
Study of light emitting mechanisms, materials and devices in organic materials. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

20EECE986
Advanced Computer Vision
Current topics on texture, ranging vision, 3-D vision, change detection, image compression and 3-D reconstruction from projection. 3 lec. Prereq: 20ECES642. Credit Level: G. Credit Hrs: 3.00

20EECE988
Advanced Micro Architectures
Important issues of advanced computer micro architectures, mainly in the areas of pipelines, Instruction-Level Parallelism (ILP). Establish a concrete and broad technical background for students who will conduct future research on computer architectures and compilers. Includes other research skills such as reviewing, writing and presenting technical papers. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

Engineering Graduate Fundamentals

H—University Honors course.
Engineering Graduate Fundamentals

20EGFD601
Advanced Strength of Materials

20EGFD615
Introduction to Modern Control Theory
State variable formulation of control problems. Linear systems theory. Observability, controllability and feedback control. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD617
Introduction to Digital Control Design
Intended as a hands-on introduction to digital control with the emphasis on implementation of digital controls systems. First half of class is lecture, second half is lab work. 3 lec. Prereq: 20MECH481. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD618
Intermediate Classical Control Systems Design
A second course in basic control with an emphasis on design to closed loop stability and performance specifications using frequency response techniques. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD621
Optimal Engineering Design
Analytical and numerical methods for optimization of functions and functionals. Gradient and direct search methods. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD622
Optimal Control

20EGFD631
Introduction to Combustion Theory I
Chemical thermodynamics, equilibrium chemical kinetics, theories of premixed and diffusion flames. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD632
Principles of Gas Turbine Combustion
Examination of the fluid mechanics of reacting flows. Thermodynamics of mixture, chemical kinetics, conservation equations for reacting flows, combustion waves and nozzle flow. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD637
Computational Fluid Dynamics
Calculation of 2D and 3D flows using commercial CFD software; significance of CFL and cell Reynolds number limitations; premixed combusting flow; turbulence modeling and chemical kinetics; pre/post-processing of data; interpretation of results. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20EGFD650
Technology Law
Technology law, issues relating to corporate contracts, product liability, intellectual property, and related topics. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20EGFD701
Engineering Elasticity I
Theory of deformation for continuous media; theory of stress for continuous media; stress-strain relations on three dimensional elasticity; review of index notations. 3 lec. Credit Level: G. Credit Hrs: 3.00

Engineering Graduate Fundamentals

20EGFD702
Elasticity II
This course builds on the theory of continuum mechanics the students learned in Elasticity I and teaches them the most important specific methods of elasticity. The students familiarize themselves with the fundamental equations of elasticity, and learn about the mechanical and thermal properties of solids. This course is essential for those pursuing advanced graduate study in solid mechanics. Prereq: 20AEEM619. Credit Level: G. Credit Hrs: 3.00

20EGFD703
Elasticity III
This course builds on the theories of continuum mechanics and elasticity the students learned in Elasticity I & II, respectively, and familiarizes them with the specific methods of elasticity through examples of selected problems. This course is recommended for all students pursuing advanced graduate study in solid mechanics. Prereq: 20AEEM619, 20EGFD702. Credit Level: G. Credit Hrs: 3.00

20EGFD705
Finite Element Techniques I
Introduction to finite element techniques. Stiffness matrices, assembly, applications with trusses and beams; use of ANSYS. Credit Level: G. Credit Hrs: 3.00

20EGFD706
Finite Element Techniques II
Displacement-based finite element analysis. Higher order elements, isoparametric coordinates. Use of ABAQUS or LSDYNA. Prereq: 20EGFD705. Credit Level: G. Credit Hrs: 3.00

20EGFD707
Advanced Finite Elements III
GalErkin formulation, Application to Vibrational Analysis, Impact Simulation and Introduction to Nonlinear F.E.T. Prereq: 20EGFD706, 20EGFD706. Credit Level: G. Credit Hrs: 3.00

20EGFD720
Introduction to Multivariable Control
A fundamental look at control system stability, performance and robustness of SISO and MIMO systems. Prereq: 20EGFD615. Credit Level: G. Credit Hrs: 3.00

20EGFD721
Multivariable Control Theory
Matrix description of multivariable systems. Frequency domain effects of state feedback. Singular values and robustness of controllers. Prereq: 20EGFD615. Credit Level: G. Credit Hrs: 3.00

20EGFD724
Grid Generation Technique I
Features of appropriate coordinates in fluid dynamic analysis. Basic techniques of grid generation. Details of boundary-aligned coordinate generation for arbitrary geometry and the resolution of length scales will be emphasized. 3 lec. Credit Level: G. Credit Hrs: 3.00

20EGFD731
Manufacturing Controls
Course provides a broad basis for understanding modern digital control theory for manufacturing. Provides practical experience with enough detailed examples in understanding stability and tuning of digital motion controllers using modern design tools such as Matlab. Credit Level: G. Credit Hrs: 1.00

20EGFD737
Machine Vision
Course provides a fundamental understanding of machine vision concepts and applications. Presents two and three dimensional machine vision techniques. Credit Level: G. Credit Hrs: 1.00

20EGFD741
Viscous Laminar Flow
The emphasis is on the theoretical development of solution techniques.
Engineering Graduate Fundamentals

20EGFD741 Viscous Laminar Flow
for the incompressible boundary layer equations. The boundary layer equations are derived in general surface coordinates and details of exact and approximate methods of solution are presented. Credit Level: G. Credit Hrs: 3.00

20EGFD742 Turbulent Flows
Stability of flows, introduction to transition and turbulence. Reynolds average equations, turbulence models. Credit Level: G. Credit Hrs: 3.00

20EGFD745 CFD for Incompressible Flows
Navier-Stokes Equations and their Non-Dimensionalization for Incompressible Flow; Primitive-Variable and Derived-Variable Formulations; Staggered-Grid and Co-Located-Grid Discretizations; Pressure Poisson Equation and its Numerical Solution. Credit Level: G. Credit Hrs: 3.00

20EGFD746 Numerical Methods for Inviscid Compressible Flow
Governing equations, methods for solving potential flow equations for subsonic and transonic flow. Recent techniques for the solution of Euler’s equations. Prereq: 20AEEM625, 20AEEM685. Credit Level: G. Credit Hrs: 3.00

20EGFD748 Numerical Methods for Viscous Compressible Flow
Explicit and implicit methods of solution for the parabolized, “thin-layer”, and Navier-Stokes equations, and additional topics of current interest. Prereq: 20EGFD746. Credit Level: G. Credit Hrs: 3.00

20EGFD751 Numerical Methods in Transport Phenomena
Explicit and implicit methods for ordinary differential equations, parabolic and hyperbolic partial differential equations, the method of characteristics, relaxation and alternating direction methods for elliptic equations, application to fluid mechanics. Credit Level: G. Credit Hrs: 3.00

20EGFD752 Knowledge Based Engineering
Participants will develop a basic understanding of artificial intelligence techniques and their applications in manufacturing. Students will also develop the ability to apply knowledge-based systems, fuzzy logic, and neural network techniques in solving specific manufacturing prob. Credit Level: G. Credit Hrs: 1.00

20EGFD753 Supply Chain Management
The course describes supply chains, why they are important, and the types of challenges implicit in managing supply chains. The use of decision-support system in supply chain management is also discussed. Credit Level: G. Credit Hrs: 1.00

20EGFD755 Ergonomic Analysis
Analysis of work and individual factors in organizations with the objective to create and maintain a healthy/safe and productive workplace. Credit Level: G. Credit Hrs: 1.00

20EGFD756 Ergonomic Design
Discussion of human factors theories on work design to gain a global understanding of how to achieve a balance among the different elements in the work system and balance between work and human abilities and needs to ensure that the health and safety of workers are taken into acct. Credit Level: G. Credit Hrs: 1.00

20EGFD761 Conduction Heat Transfer
Heat transfer by conduction. Mathematical formulation of physical problems; methods of solution including separation of variables.
Engineering Education

20ENFD120 Foundations of Engineering
inform and use control structures; declare and employ basic MATLAB data types particularly numbers, strings, 1-dimensional arrays and symbolic variables; create and use functions. BoK: QR. Credit Level: U. Credit Hrs: 3.00

Engineering Fundamentals

20ENFD101 Mechanics I

20ENFD102 Mechanics II

20ENFD102H Honors Mechanics II

20ENFD103 Mechanics III

20ENFD104 Cooperative Learning for Calculus I
Techniques for helping students maximize their potential using cooperative learning techniques and collaborative skills. Admission by permission of the Emerging Ethnic Engineers Program office. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD105 Cooperative Learning for Calculus II
See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD106 Cooperative Learning for Calculus III
See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD107 Cooperative Learning for Calculus IV
See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD108 Introduction to Cooperative Learning for Physics
See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD109 Cooperative Learning for Physics I
See 20-031-104. 4 lab. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD110 Cooperative Learning for Physics II
See 20-031-104. 4 lab. per week BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD112 Fundamentals of Programming
Top-down program design; break problems into functions and identify needed control structures; declare and employ basic MATLAB data

Engineering Fundamentals

20ENFD279
Experimental Nanoscale Science and Technology
To introduce students to experimental nanoscale science and technology, including carbon nanotube synthesis, nanotube sensor fabrication and characterization, quantum dot characterization, and gold nanoparticle fabrication and characterization. The experimental techniques learned in this course can be applied to industrial problems and also used as a foundation for performing research in the area of nanoscale science and technology. Prereq: 20ENFD278. BoK: NS, SE. Credit Level: U. Credit Hrs: 3.00

20ENFD371
Basic Electric Circuit Analysis

20ENFD376
Nature and Properties of Materials
Properties of engineering materials; atomic bonding; crystal systems; electron transport in solids; metal alloys; deformation of metals; cold working and annealing; polymers; ceramic materials. Dept. of Materials Science and Engineering. Ea. Qtr. 3 lec. Prereq: 15CHEM103. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD382
Basic Thermodynamics
Fundamental laws and concepts of classical thermodynamics; thermodynamic functions; properties of the pure substance. Dept. of Materials Sci. and Engr. Ea. Qtr. Prereq: 15MATH254. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD383
Basic Fluid Mechanics

20ENFD384
Honors Basic Fluid Mechanics
Physical nature of fluids, fluid statics, derivation of conservation equations and their application to engineering problems. Similitude, laminar and turbulent flow in pipes and channels. This course fulfills the requirement of Basic Fluid Mechanics 20-031-383 for selected students. Limited to students in the Honors Program or by perm. of instr. 3 lec. Prereq: 15MATH254, 15MATH273, 20ENFD101. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20ENFD385
Basic Heat Transfer
Fundamental concepts of heat transfer including conduction, convection, and radiation. Dept. of Chemical Engr. Ea. Qtr. Prereq: 15MATH273. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20ENFD400
Engineering Project Abroad I: Market Assessment
The objective of this course is to prepare engineers to plan and execute an assessment of a market need abroad including the identification of the need, quantifying the market opportunity, planning an international assessment trip and evaluating data collection in the field. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20ENFD401
Engineering Project Abroad II: Appropriate Design
The objective of this course is to prepare engineers for appropriate design in a context-dependent manner. An emphasis will be placed on recognizing diversity and culture of the client as well as considering the social and ethical issues of engineering design. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20ENFD402
Engineering Project Abroad III: Implementation
The objective of this course is to facilitate the inherent entrepreneurial spirit of each student to implement an appropriate design. An emphasis will be placed on creativity in recognizing diversity and culture of the client as well as considering the social and ethical issues in a context-dependent manner. BoK: SE., DC. Credit Level: U. Credit Hrs: 1.00

20ENFD501
SPACE SYST DESIGN
SPACE SYST DESIGN BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENFD502
SPACE SYS DESIGNII
SPACE SYS DESIGNII Prereq: 20ENFD501. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20ENFD600
SEMINAR-MATERIALS
SEMINAR-MATERIALS BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

Engineering

20ENGR600
FUNDAMENTALS OF LEADERSHIP
The goal of this course is to prepare students for leadership roles in the workplace. Topics covered include: leadership qualities and skills, ethical and social values needed in leadership roles, analysis of human behavior, leadership strategies and what is really important in order to be an excellent leader. Case studies will be conducted through group study, concluding with oral and written reports. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20ENGR601
Engineering Information Resources
A web-based course requiring in depth use of engineering literature in support of research for a thesis or project. See WWW.engrlib.uc.edu/EIR96 BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20ENGR610
Effectiveness in Technical Organization
Examines the non-technical factors that enable engineers and other technical professionals to maximize their contribution to organizational effectiveness. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

20ENGR613
Engineering Economic Analysis
Examines the principles and techniques for making decisions between various engineering alternatives. The techniques of benefit-cost rate-of-return, and net present value will be examined. Also, the topic of taxes and their impact on decision making is explored. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20ENGR614
Engineering Project Management
Examines management of projects for engineering endeavors from preparing a project proposal, conducting the project to quality control of project work. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20ENGR651
Instructional Planning
The purpose of this course is to provide National Science Foundation Fellows with an introduction to instructional techniques and secondary math and science classrooms. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20ENGR652
Engineering Education Practicum
The purpose of these practicum courses is to provide NSF Fellows with
20ENGR9652 Engineering Education Practicum
a continuation of instructional techniques and secondary math and science classroom strategies begun in Instructional Planning. Prereq: 20ENGR651. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20ENGR952 Modern Teaching Techniques
Students discuss basics of creating course content managing a class and interacting effectively with students. Topics covered include learning styles and Bloom's taxonomy. Students create course materials for an undergrad course. Weekly seminars are run by students. Credit Level: G. Credit Hrs: 1.00

20ENGR953 Mentored Teaching Experience
Students in this class work directly with an assigned faculty mentor to develop teaching skills. Students spend a minimum of 10 hours in the classroom teaching and other appropriate activities supervised by their mentors. Prereq: 20ENGR952. Coreq: 20ENGR954. Credit Level: G. Credit Hrs: 1.00

20ENGR954 Advanced Teaching Techniques
This seminar continues the examination of issues addressed in 20ENGR952. Additional topics may include: managing student projects/teams, incorporating practical ethics into engineering curriculum, teaching evaluations, ABET, and preparing proposals. Prereq: 20ENGR952. Coreq: 20ENGR953. Credit Level: G. Credit Hrs: 1.00

20ENGR955 The Academic Profession
Students research opportunities for academic jobs in a variety of institutions, practice presentation skills and prepare application materials, including a Teaching Portfolio. Junior faculty issues are discussed and panel discussions are held. Prereq: 20ENGR954. Credit Level: G. Credit Hrs: 1.00

Industrial Engineering

20INDS691 Nanotechnology Occupational and Environmental Health & Safety
Topics cover the impact of nanotechnology on occupational and environmental health and safety with respect to the promotion and protection of individual safety and health along the life cycle of nano-based products (i.e., material handling, manufacturing process, etc.) BoK: NA. Credit Level: U. Credit Hrs: 3.00

20INDS692 Nanotechnology Occupational and Environmental Health & Safety II
Topics cover the use of nanohealth technologies for the prevention, detection, and treatment of occupational and environmental diseases (e.g., musculoskeletal disorders, pulmonary and cardiovascular diseases. BoK: NA. Credit Level: U. G. Credit Hrs: 3.00

20INDS747 Safety and Health Engineering: Research to Practice
This course is designed so the student learns advanced research topics related to safety and health engineering as defined by the National Occupational Research Agenda (NORA). Some course topics are: lower back disorders, musculoskeletal disorders, emerging technologies, etc. Credit Level: G. Credit Hrs: 3.00

20INDS748 Safety and Health Engineering II: Research to Practice
Topics deal with the identification, improvement and maintenance of the safety and health of individuals in the occupational environment. Emphasis is placed on applications in different technology sectors such as manufacturing, health-care, construction, biomedical and envir. tech. Credit Level: G. Credit Hrs: 3.00
Kinetic principles of rigid body motion, and angular momentum
and equilibrium equations. Nonreacting and reacting gas mixtures.
Incompressible flow. Thermodynamic analysis of cycles. Property
relations and Maxwell’s linkages. BoK: NA. Credit Level: U. Credit
Hrs: 3.00

20MECH321
Machine Analysis and Design
Review of stress/strain and force/deflection relationships. Static
and dynamic failure theories. Design of some machine elements. 4 lec.
Prereq: 20MECH320, 20ENFD375, 20ENFD103. BoK: QR. Credit Level:
U. Credit Hrs: 4.00

20MECH342
Numerical Analysis for Mechanical Engineers
Fundamentals of solution techniques for mechanical engineering
usage. 3 lec. Prereq: 15MATH273, 20ENFD111. BoK: QR. Credit Level:
U. Credit Hrs: 3.00

20MECH354
Manufacturing Processes I
Discussion of materials and properties, heat treatment, principles of
metal cutting and machining, energy and economic considerations,
welding and joining processes. BoK: QR. Credit Level: U. Credit Hrs:
3.00

20MECH355
Manufacturing Processes II
Analysis of metal forming and shaping processes, metal casting
processes and equipment. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH370
Measurements and Instrumentation Lab
Introduction to the theory and practice of measuring mechanical
engineering phenomena. Concentration on physical laws and
calibration. 3 lab. Prereq: 20ENFD371. BoK: QR. Credit Level: U. Credit
Hrs: 3.00

20MECH399H
Mechanics of Human Injury
Provides a comprehensive introduction to injury mechanics including
the causes of injury, the physical, emotional and economic cost of
injuries recovery and rehabilitation from injury, injury prevention by
protective devices and injury prevention through standards and safety
rules. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MECH413
Heat Transfer
Introduction to concepts and principles of heat transfer. To develop an
intuitive and quantitative understanding of conductive, convective,
and radiative heat transfer, and design of heat exchangers. 4 lec.
Prereq: 20MECH312. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH414
Momentum and Energy Transport
Boundary layer and law of the wall. Heat transfer in non-stationary
media; forced and free convection in pipes and around objects. 4 lec.
Prereq: 20MECH413. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH422
Design of Mechanical Components
Design of mechanical components and subsystems with emphasis on
mechanical drives and fluid power components. Design project. 4 lec.
Prereq: 20MECH321. BoK: QR. Credit Level: U. Credit Hrs: 4.00

20MECH423
Design of Mechanical Systems
Design of mechanical engineering systems. Methodology of design.
Credit Level: U. Credit Hrs: 4.00
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20MECH541</td>
<td>Engineering Economy</td>
<td>Principles for making decisions among competing engineering alternatives based on the basis of their return on investment. BoK: QR.</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>20MECH481</td>
<td>Control Theory</td>
<td>Fundamental concepts of control systems. Open and closed loop systems, control components, time and frequency domain analysis. Transfer function and and stability analysis. BoK: NA.</td>
<td>3.00</td>
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</tr>
<tr>
<td>20MECH510</td>
<td>Computer Aided Design</td>
<td>Selected topics in mechanical design, computer aided engineering and computer aided design. Utilization of the digital computer as a design tool. 3 lec. BoK: NA.</td>
<td>3.00</td>
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</tr>
<tr>
<td>20MECH525</td>
<td>Introduction to Finite Element Methods I</td>
<td>Fundamental finite element analysis of trusses and beams with software applications. 3 lec. Prereq: 20MECH321. BoK: QR.</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>20MECH526</td>
<td>Introduction to Finite Element Methods II</td>
<td>Continuation of 20-MECH-525 in finite element analysis of plates and solids with software applications. 3 lec. Prereq: 20MECH525. BoK: QR.</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>20MECH536</td>
<td>Special Projects</td>
<td>An opportunity for individual students or small teams to work under the supervision of volunteer faculty on topics of special interest including software development, research, analysis, experimentation, and design. Limited funding available. By prearrangement with individual faculty. BoK: NA.</td>
<td>1.00-19.00</td>
<td></td>
</tr>
<tr>
<td>20MECH537</td>
<td>Automotive Design I</td>
<td>Advanced design theory for mechanical engineering systems. BoK: NA.</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>20MECH538</td>
<td>Automotive Design II</td>
<td>Advanced design theory for mechanical engineering systems. Continuation of 20MECH537 Prereq: 20MECH537. BoK: NS.</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td>20MECH540</td>
<td>Safety in Mechanical Design</td>
<td>Aspects of mechanical design which cause injury, methods of correction and protection and governmental regulations. Liability and its effects on engineering designers and their employers. 3 lec. Prereq: 20MECH321. BoK: QR.</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>20MECH552</td>
<td>Concurrent Product and Process Development II</td>
<td>This course will introduce computer-aided, concurrent engineering approaches applied to conceive, design and manufacture products, systems and processes that take into account their entire lifecycles. BoK: NA.</td>
<td>4.00</td>
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Mechanical Engineering

**20MECH612**
Computational Design II
Level: U, G. Credit Hrs: 3.00

**20MECH615**
Modern Control Theory
State variable formulation of control problems. Linear systems theory. Observability, controllability and feedback control. 3 lec. Prereq: 20MECH481. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH617**
Introduction to Digital Control Design
Intended as a hands-on introduction to digital control with the emphasis on implementation of digital controls systems. First half of class is lecture, second half is lab work. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH618**
Intermediate Classical Control Systems Design
A second course in basic control with an emphasis on design to closed loop stability and performance specifications using frequency response techniques. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH621**
Modeling and Simulation of Solids I
Focus will be on modeling of various solid materials and simulation using molecular dynamics, FEM/BEM or meshfree methods. Prereq: 20EGFD601, 20MECH525. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

**20MECH625**
Mechatronics Systems Design
Modeling and simulation of physical systems; sensors and transducers, actuateive device, hardware components for Mechatronics; signals, systems and controls; real-time interfacing; advanced applications and case studies. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH628**
Design for Manufacturability I
Designing for manufacturability, specifically functionality, usability, assembly, quality, reliability, inspectability, maintainability, and safety. Course focuses on the consumer product design process, its evolution, customer need and market demand assessments, manufacturing planning. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH629**
Design for Manufacturability II
Actual design of a consumer product for manufacturability. Students will forecast market demands, assess user needs, (re)design the product for functionality, usability, manufacturability, etc., do manufacturing planning, and estimate costs, and plan for growth. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH630**
Numerical Methods in Transport Phenomena I

**20MECH631**
Numerical Methods in Transport Phenomena II

**20MECH632**
Intermediate Fluid Mechanics
Extension of fundamental fluid mechanics to more detailed study of viscous flow theory and incompressible and compressible flow. 3 lec. Prereq: 20MECH414. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH633**
Experimental Techniques in Fluid Mechanics
Review of experimental methods commonly used in experimental and applied research in fluid mechanics, convective heat transfer and aerodynamics. A discussion of techniques, instrumentation, practical applications and testing facilities. (Alternate years) 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH634**
Kinematic Synthesis
Study of kinematic-geometric relations in linkages and mechanical devices; polode properties; Euler-Savary equation; analysis and synthesis of mechanisms. 3 lec. Prereq: 20MECH320. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH635**
Biofluid Mechanics
Biofluid mechanics provides an intellectual framework for understanding the features of flow in organ systems, in health and disease. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH636**
Introduction to Robotics
Introduction to industrial robots, components, programming, and applications. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH637**
Robot Control
Introduction to industrial robot control. Robot servo system analysis and design. Emphasis on electric and hydraulic drive robots. Frequency domain stability analysis. Automated factory concepts. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH638**
Robot Design
Mechanics of robots. Robot design process starting from specifications. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH639**
Concurrent Product and Manufacturing Process Development
Fundamentals concurrent product and manufacturing process development. Product development process that is being used to develop more competitive products with breakthrough productivity (faster design with lower development costs). Key methods will be introduced throughout the major phases. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

**20MECH640**
Robot Vision
Introduction to intelligent robotics, mathematics, programming and control. Machine intelligence, expert industrial systems, sensors and vision, applications to flexible manufacturing system design. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH641**
Fundamentals of Tribology
Basics including tribological elements (bearings, clutches, brakes), design issues (friction, lubrication, wear), and modeling/solution techniques. Tribological component design in a student project situation. 3 lec. Prereq: 20MECH321, 20MECH422. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

**20MECH642**
Bio-Heat Transfer
General heat transfer and thermodynamics review, modes of heat transfer-conduction, convection and radiation; thermal properties of tissues, perfusion in tissues; heat transfer in biological systems; effect of blood flow on heat transfer; hyperthermia therapy; thermal imaging. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

**20MECH645**
Introduction to Smart Structures
Introductory course to give students a background in the design of smart structures. Use of MATLAB to design and simulate a simple
Mechanical Engineering

20MECH645
Introduction to Smart Structures
smart structure. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MECH650
Occupational Safety Engineering
An introduction and overview into the subject of occupational safety and health. The identification of hazards and the effective control of hazards is examined. The establishment of OSHA and Workers Compensation is studied along with the historical development of occupational safety and health. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH651
Safety Engineering and Product Liability
An overview into the design and analysis of engineering systems and products from the stand- point of safety and liability. The identification of hazards and the legal consequences of exposure to hazards is examined. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH652
System Safety Engineering I
Introduction to fundamental concepts of safety engineering. Inductive methods for analyzing systems to recognize, evaluate and control hazards. Techniques include preliminary hazard analysis, failure mode and effects analysis, management oversight and risk tree (MORT), and job safety. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH653
System Safety Engineering II
Application of quantitative deductive methods; including: Boolean logic, fault tree, and sneak circuit analysis; to the rigorous analysis of major systems to identify and rank likely fault states of subsystems and components. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH655
Intelligent Systems and Controls
Treatment of uncertainties in probabilistic, stochastic, and fuzzy domains; Bayesian estimation and decision theory; Stochastic control including Markov Decision Process; Graph theoretic modeling of interconnected systems; and Swarm intelligence. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH660
Fourier Transform Techniques
Time, frequency, s-domain relationships, Fourier series and transforms. Application to vibration, noise control, heat transfer problems. Recommended for 20MECH633. 2 lec., 1 lab. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH662
Mechanical Vibrations II
Continuation of Mechanical Vibrations I with emphasis on multi-degree of freedom, lumped parameter, and continuously distributed system transient vibrations, relationships between lumped parameter models and measured parameters. 3 lec. Prereq: 20MECH481, 20MECH660. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH663
Mechanical Vibrations III

20MECH664
Mechanical Vibrations III Lab

20MECH666
Acoustics I
Elements and general properties of waves and wave motion. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH667
Acoustics II
Reverberation, speakers, speech and hearing noise study techniques involving analog and digital filtering, correlation, and coherence. 3 lec. Prereq: 20MECH666. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH668
Vehicle Noise, Vibration and Harshness (NVH)
Understanding mechanisms controlling automotive NVH response. Study of analytical, computational and experimental techniques for analyzing NVH problems including powertrain noise, tire vibration, squeak and rattle, and ride quality. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH671
Quality Control
Learn the applied statistics for quality control, 7QC tools, Quality Function Deployment (QFD), and design for six-sigma and to use these tools for term projects. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH672
Manufacturing Facilities Design
Problem analysis and design for commercial buildings to produce products and/or services with emphasis on material handling/movement and distribution, product or service flow, and information flow. A project will be completed to determine a final layout for the total system. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH673
Introduction to E-Manufacturing
Introduction of IT-enabled emerging technologies and tools in manufacturing including remote monitoring, embedded diagnostics, intelligent networks, RFID, wireless communications, and smart machine systems. Prior knowledge of the LabView program is preferred. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH674
Intelligent Systems Theory
Introduction to intelligent systems theory including expert systems, fuzzy logic, neural networks, and applications to manufacturing and material handling. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH675
CAD for Manufacturing
Discussion of advanced manufacturing concepts including group technology, process planning, numerical control, design for manufacturability and assembly. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH676
Introduction to Supply Chain Management
This course discusses what supply chains are, why they are important, and the types of challenges implicit in managing supply chains. The use of decision-support system in supply chain management is also discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH685
Introduction to Biomechanics
Basic concepts and methods involved in the applications of mechanical engineering principles in the medical and life sciences. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MECH686
Tissue Biomechanics
Examination of properties and mechanical behavior of the structures.
HVAC Design II
20MECH699

This course provides an introduction to the design of heating, ventilating and air conditioning (HVAC) systems, and their individual units, engineering strategies and management techniques. Topics include HVAC needs and sustainability, refrigeration cycles, Psychrometrics, etc. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MECH711
CAD / CAM I

Selected topics in mechanical design, computer aided engineering, computer aided design, computer aided manufacturing and computer integrated manufacturing. Utilization of the digital computer as a design tool. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH712
CAD / CAM II

Selected topics in mechanical design, computer aided engineering, computer aided design, computer aided manufacturing and computer integrated manufacturing. Utilization of the digital computer as a design tool. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH715
Advanced Kinematics

Advanced topics in kinematics and dynamics of machines. 3 lec. Prereq: 20MECH634. Credit Level: G. Credit Hrs: 3.00

20MECH716
Advanced Kinematics II

Provide a fundamental understanding of the kinematics theory in design and analysis of mechanisms. The material will expose the student to theory and practice of synthesis of mechanisms and their evaluation for industry needs. 3 lec. Prereq: 20MECH715. Credit Level: G. Credit Hrs: 3.00

20MECH724
Grid Generation Techniques I

Features of appropriate coordinates in fluid dynamic analysis. Basic techniques of grid generation. Details of boundary-aligned coordinate generation for arbitrary geometry and the resolution of length scales will be emphasized. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH725
Grid Generation Techniques II


20MECH727
Ideal Fluid Flow

Physical aspects of inviscid flow; the equations governing ideal fluid motion; concept of circulation, vorticity, stream function and velocity potential; potential flow. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH728
Viscous Fluid Flow-laminar

The governing equations for viscous-fluid motion; similarity variables; the boundary-layer concept; incompressible boundary layer flow; Falkner-Skan solutions; introduction to compressible boundary-layer flow. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH731
Introduction to Parallel Computing

Introduction to distributed computing, message passing using MPI, and basic domain decomposition strategies. Credit Level: G. Credit Hrs:
20MECH731
Introduction to Parallel Computing
3.00

20MECH736
Continuum Mechanics
Tensor algebra, kinematics, conservation laws, constitutive equations, hyperelasticity, variational principles. Credit Level: G. Credit Hrs: 3.00

20MECH741
Engineering Elasticity II
Formulation and "exact" solutions of some linear elasticity problems and application in structural mechanics. 3 lec. Prereq: 20MECH740. Credit Level: G. Credit Hrs: 3.00

20MECH742
Engineering Elasticity III
Energy principles in mechanics, numerical methods, and other solid mechanics problems. 3 lec. Prereq: 20MECH741. Credit Level: G. Credit Hrs: 3.00

20MECH745
Finite Element Techniques I
Introduction to finite element techniques. Stiffness matrices, assembly, applications with trusses and beams; use of ANSYS. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH746
Finite Element Techniques II
Beams and frames; joint releases; fixed-end forces and distributed loading; curved beams and vibration problems. 3 lec. Prereq: 20MECH745. Credit Level: G. Credit Hrs: 3.00

20MECH747
Advanced Finite Element Methods
Boundary value problems; two-dimensional analysis; variational techniques; plane stress and plain strain; isoparametric and solid elements. 3 lec Prereq: 20MECH746. Credit Level: G. Credit Hrs: 3.00

20MECH750
Boundary Element Methods I
Theory and application of Boundary Elements. Review of BEM applications to elastostatics, acoustics, and heat transfer. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH751
Boundary Element Methods II
Continuation of Boundary Element Methods I. Emphasis on formulation and solution of three-dimensional problems in heat conduction, elastostatics, and acoustics. 3 lec. Prereq: 20MECH750. Credit Level: G. Credit Hrs: 3.00

20MECH755
Fracture Mechanics
Introduction to linear elastic fracture mechanics (LEFM), elastic stress singularity, small-scale yielding, energy approach, J-integral, crack growth and stability, application to structures, and computational fracture mechanics. Credit Level: G. Credit Hrs: 3.00

20MECH757
Solid Mechanics of Biological and Biomaterials
Nonlinear solid mechanics of bio- biological materials; hyperelasticity; hyperviscoelasticity; application to soft tissue and hydrogels using MATLAB. Credit Level: G. Credit Hrs: 3.00

20MECH765
CAD for Manufacturing
Discussion of advanced manufacturing concepts including group technology, process planning, numerical control, design for manufacturability and assembly. Credit Level: G. Credit Hrs: 3.00

20MECH766
Precision Engineering & Computational Metrology
Fundamentals of solid modeling and sculptured surfaces; applications in process planning, feature extraction, tolerance representation,
Mechanical Engineering

20MECH795
System Dynamic Analysis II
See 20MECH794. 3 lec. Prereq: 20MECH794. Credit Level: G. Credit Hrs: 3.00

20MECH796
System Dynamic Analysis III
See 20MECH794. 3 lec. Prereq: 20MECH795. Credit Level: G. Credit Hrs: 3.00

20MECH800
Master's Thesis Research
Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-19.00

20MECH813
Fundamentals of Microprocessor Control
Frequency domain and state variable methods in design of digital systems. Microprocessor implementation including A/D - D/A conversion, interrupts, processor characteristics. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH818
Intelligent Manufacturing Systems I
Design and simulation of intelligent manufacturing systems with special emphasis on robot integrated mechanized assembly tasks. Fundamentals of artificial intelligence, application of robotics, sensors, vision, and flexible assembly work cells. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH819
Intelligent Manufacturing Systems II
Continuation of 20MECH818 with emphasis on an extensive project. Prereq.: Perm of instr. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH820
Intelligent Manufacturing Systems III
Continuation of 20MECH819. Introduction to CIM. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH829
Viscous Fluid Flow - Turbulent
Introduction to turbulence; the governing equations for turbulent flow and the inherent difficulties in their solution; modeling of turbulence; applications. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH830
Thermal Process Engineering
Modeling of convective transport in thermal processing of anomalously viscous process media, droplets, and vapor/gas-liquid interfaces. Theoretical development of underlying fluid flow and heat transfer principles, along with discussion of relevant experimental issues, for applications in material manufacturing and bio-chemical processing, including plasma processing, material deposition, atomization, and production of chemical and bio-chemical media, among others. Credit Level: G. Credit Hrs: 3.00

20MECH837
Multi-Body Dynamics I
Kinematics and dynamics of particles and rigid bodies; multi-body systems; application in biosciences, robotics, mechanisms, and manipulators. (Alternate Years) 3 lec. Credit Level: G. Credit Hrs: 3.00

20MECH838
Multi-Body Dynamics II
Kinematics and dynamics of particles and rigid bodies; multi-body systems; application in biosciences, robotics, mechanisms, and manipulators. (Alternate Years) 3 lec. Prereq: 20MECH837. Credit Level: G. Credit Hrs: 3.00

20MECH839
Multi-Body Dynamics III
Kinematics and dynamics of particles and rigid bodies; multi-body systems; application in biosciences, robotics, mechanisms, and manipulators. (Alternate Years) 3 lec. Prereq: 20MECH837,
Metallurgical Engineering

20METL594 Foundry Engineering Laboratory Experiments to evaluate variables related to molding materials, molding operations, and metal casting methods. 3 lab. Prereq: 20METL593. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20METL611 Statistics Policies and Productivity in Manufacturing This course deals with statistical methods, corporate and government policies and their effect on productivity issues in medium and large scale manufacturing processes. A few case studies will be discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20METL661 Materials and Energy Balances II Analysis of industrial metallurgical processes, study of computer application in the area of process metallurgy. 2 lec., 3 lab. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20METL719 Electron Microscopy Basic principles of operation of the Electron Microscope, Kinematic and dynamical theories of image formation including Fresnel calculations and Darwin equations. Defect analysis. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20METL773 Fracture Mechanics Consideration of the concepts of fracture mechanics and their application to materials systems. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20METL779 Dislocations Dislocation stress fields, dislocation interactions, theory and methods of formation. 3 lec. Credit Level: G. Credit Hrs: 3.00

20METL871 Seminars Studies, presentations and discussions by faculty, students, and visitors of current topics in the field of metallurgy or materials science. 1 lec. Credit Level: G. Credit Hrs: 1.00

20METL971 Research - Metallurgical Engineering 1-18 gr.cr. Credit Level: G. Credit Hrs: 1.00-18.00

Mechanical, Industrial and Nuclear Engr

20MINE540 Management of Professionals Introduction to the principles and procedures of management for professionals; role of administration in engineering, health care, and other professional areas. BoK: QR. Credit Level: U. Credit Hrs: 3.00

20MINE640 Management of Professionals Introduction to the principles and procedures of management for professionals; role of administration in engineering, health care, and other professional areas. 3 lec. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20MINE777 Fire Protection Engineering in Facility and Process Design Fire protection engineering concepts in the design of facilities and processes from the standpoint of loss prevention and control. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MINE778 Safety Engineering Design and Management Advanced application of an integrated safety engineering design/management approach to risk reduction in business and industry. 3 lec. Credit Level: G. Credit Hrs: 3.00

Materials Engineering

20MTEN100 Introduction to Materials Engineering An introduction to the field of materials engineering. What areas it encompasses and future opportunities in the field. 1 lec. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN101 Introduction to Materials Engineering II Advanced introduction to the Materials Engineering discipline emphasizing laboratory and research techniques. Also covers current topics in Materials Engineering. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN110 Materials Fundamentals Properties of engineering materials; atomic bonding; crystal systems; electron transport in solids; metal alloys; deformation of metals; cold working and annealing; polymers, ceramic materials Dept. of Materials Science and Engineering. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN201 Introduction to Metallurgy An introduction to the basic concepts of metallurgy including a description of crystal structures. Additional topics would include mechanical properties, deformation characteristics of metals, defect structure, phase diagrams and phase transformations 4 lec. BoK: NS. Credit Level: U. Credit Hrs: 4.00

20MTEN202 Introduction to Ceramics An introduction to the basic characteristics of ceramic systems including phase equilibria, mechanical behavior and crystal structures. 3 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN203 Introduction to Polymers An introduction to polymer systems and their associated properties and structure. 3 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN204 Introduction to Ceramic Processing This introductory course deals with the synthesis, refinement and consolidation of these materials into a green state body and the changes that occur during heat treatment of the body. Focus will be on the development of desired properties, requiring careful control of all processing variables. Prereq: 20MTEN110, 20MTEN202. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN205 Ceramics Laboratory This introductory laboratory course in ceramics is designed to compliment the corresponding lecture course in Introduction to Ceramic Processing. Coreq: 20MTEN204. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN211 Materials Techniques An introduction to those laboratory techniques necessary for the investigation and characterization of materials. 1 lec., 6 lab. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN221 Computer Applications in Materials Engineering An introduction to the concepts of data analysis using the microcomputer and the development of programming skills as applied to elementary problems in materials. 2 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN252 Physical Polymers This course deals with the fundamentals of the physical structure and properties of polymers. Prereq: 20MTEN110, 20MTEN203. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
Materials Engineering

20MTEN315  
Physical Metallurgy I  
An introduction to the fundamental phenomena which control the structure and properties of metals and alloys. Prereq: 20MTEN110, 20MTEN201. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN331  
Science of Materials I  
An introduction to the fundamental phenomena which control the properties and structure of materials. Includes nucleation, transformations, diffusion, defect structures and properties. 3 lec. Prereq: 20MTEN331. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN332  
Science of Materials II  
A continuation of Science of Materials I. An introduction to the fundamental phenomena which control the properties and structure of materials. Includes nucleation, transformations, diffusion, and defect structures and properties. 3 lec. Prereq: 20MTEN331. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN333  
Materials Laboratory I  
A sequence of experiments designed to give the students hands-on experience in determining materials characteristics. 3 lab. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20MTEN334  
Materials Laboratory II  
A continuation of the experiments in Materials Lab. I. 3 lab. Prereq: 20MTEN333. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20MTEN341  
Materials Thermodynamics I  
An introduction to the fundamental laws of thermodynamics with applications to gas phase equilibria. Will include computer solutions of complex equilibrium problems. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN342  
Materials Thermodynamics II  
Application of the fundamental laws of thermodynamics to phase equilibria in metallic, polymeric and ceramic systems. Solution models and thermodynamics of electrochemistry. 3 lec Prereq: 20MTEN341. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN352  
Introduction to Polymer Processing  
This course will explore the fundamentals of different techniques for polymer processing and the manufacture of polymer-based parts. Prereq: 20MTEN203, 20MTEN252. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN354  
Polymers Laboratory  
This laboratory course in polymers is designed to compliment the corresponding lecture course in Introduction to Polymer Processing. Coreq: 20MTEN252. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN376  
Materials Selection in Design  
This course is based on the book and interactive CD generated by Prof. Mike Ashby of Cambridge University. The course combines case studies and materials science in an innovative method of teaching selection in design. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN415  
Physical Metallurgy II  
This course deals with more advanced concepts of the phenomena which control the structure and properties of metals and alloys. Prereq: 20MTEN201, 20MTEN315. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

Materials Engineering

20MTEN416  
Metallurgy Laboratory  
This laboratory course in metallurgy is designed to compliment the corresponding lecture courses in Physical Metallurgy. Coreq: 20MTEN415. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20MTEN421  
Ceramic Fundamentals  
This course will focus on the high temperature chemistry that occurs during ceramic processing. Topics included will be crystallization and recrystallization, phase transformations and the interpretation of phase diagrams that describe high temperature reactions. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN424  
X-Ray Diffraction  
Structure of crystals; the principles and applications of x-ray diffraction techniques; lecture and lab. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN431  
Diffusion and Kinetics  
Will consider the fundamental concepts of kinetics and diffusion processes in materials systems. Special emphasis will be placed on the mathematical analyses of these processes. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN434  
Polymer Chemistry  
This course will cover the fundamental chemical reactions and methods used in the preparation of polymeric materials. The key mechanistic and kinetic features of the methods will be treated in detail. Additional material will include degradation, recycling, and processing of polymeric materials. 3 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN444  
Mechanical Behavior of Materials I  
Review of elasticity and strength of materials concepts; plasticity theory; deformation of crystalline and noncrystalline solids; strengthening methods; fracture mechanisms; mechanical test techniques. 3 lec. BoK: NS., QR. Credit Level: U. Credit Hrs: 3.00

20MTEN490  
Senior Project Proposal  
Selecting and developing a proposal for an experimental and/or theoretical investigation by the individual or group of students. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN501  
Senior Projects I  
Independent theoretical and experimental investigation by the individual or group of students. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20MTEN502  
Senior Projects II  
See 20MTEN501. BoK: NA. Credit Level: U. Credit Hrs: 2.00

20MTEN503  
Senior Projects III  
See 20MTEN501. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN520  
Physical Properties Of Solids  
This course provides background relating to the major physical properties of solids including metals, ceramics and polymers, specifically those of emerging materials that are currently in use. It is also intended to prepare students in the areas of sensors, detectors, transducers, membranes, optical devices and microwave components. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN524  
Materials and Energy Balances  
Principles and calculations involved in the determining of materials and energy balances in materials processing. Prereq: 20MTEN431. BoK:
Materials Engineering

20MTEN525
Polymer Processing
This course will explore the different techniques for polymer processing and manufacture of polymer based parts. Polymer processing will focus on four major areas including plastics technology, rubber technology, surface coatings/coating technology and composite technology. 3 lec. Prereq: 20MTEN434. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN632
Polymer Analysis
Instrumental and physical methods for polymer testing. Identification, molecular weight characterization, mechanical properties. 3 lec. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN634
Properties of Polymers
Structure-property relationships in polymeric materials. Rubber elasticity, glass transition, structure of crystalline polymers, thermodynamics of polymer solutions and compatibility. 3 lec. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN635
Polymer Spectroscopy
This course will focus on the principles and applications of spectrosopic techniques such as Fourier-transform infrared spectroscopy (FTIR), X-ray photoelectron spectroscopy (XPS), and spectroscopic ellipsometry. Applications of these techniques to all classes of materials, including metals, polymers, ceramics, and composites will be discussed; however, specific attention will be directed toward applications involving polymer surfaces, thin films, and interfaces. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN636
Polymer Characterization
Experiments with aspects of preparation, characterization of polymers- determination of molecular weight, mechanical properties, crystallinity, transitions. 2 lec., 3 lab. BoK: NS, QR. Credit Level: U, G, Credit Hrs: 3.00

20MTEN637
Soft Matter
Soft matter currently dominates hiring in physical sciences at research universities across the world (Science and Engineering Indicators, 2004). This course examines the science of soft matter, which lies at the boundary of physics, chemistry, and biology. Topics include nanophase self-assembly, functionalization, interfacial phenomena and responsive (smart) behavior. Soft-matter application will be taken from two research journals launched in the last year. Applications include micromachines, antireflective surfaces, tissue scaffolding, drug delivery, self-cleaning surfaces and photovoltaics. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN638
Introduction to Adhesion Science

20MTEN639
Introduction to Biomaterials
This course will introduce the uses of materials in biomedical applications. The use of ceramic, metal, polymer and composite materials for biocompatible and biomechanic applications in human musculoskeletal, cardiovascular and blood, endocrine and sensory systems will be emphasized. Senior standing or perm. of instr. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN640
Advanced Ceramic Phase Equilibria
The reactions that occur during high temperature ceramic processing often involve several oxide components. This course will cover the

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Materials Engineering

20MTEN524
Materials and Energy Balances
NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN530
Polymer Engineering
Thermomechanical properties of engineering resins. Manufacture with polymers. Design and specification of polymer based structures. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN532
Polymer Characterization
Experiments with aspects of preparation, characterization of polymers- determination of molecular weight, mechanical properties, crystallinity, transitions BoK: NA. Credit Level: U. Credit Hrs: 3.00

20MTEN544
Mechanical Behavior of Materials I
Review of elasticity and strength of materials concepts; plasticity theory; deformation of crystalline and noncrystalline solids; strengthening methods; fracture mechanics; mechanical test techniques. Prereq: 20MTEN415. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN562
Phase Analysis in Materials Engineering
The aim of this course, with associated laboratory is to provide materials engineering students a "capstone" experience in the principles and "hands-on" use of the most applicable and commonly used methods of phase analysis of materials in an integrated way. Students will perform a series of experiments, designed to address a variety of problems in metals, polymers and ceramics, that require the combined use of techniques such as x-ray diffraction, optical microscopy, scanning. BoK: NS, QR. Credit Level: U. Credit Hrs: 3.00

20MTEN570
Advances in Energy Technologies
The course will cover the advances in materials and systems for energy generation in the 21st century. Power generation, distribution and storage from traditional and "green" or sustainable methods will be described. Discussions of approaches that lead mankind away from an energy generation in the 21st century. Power generation, distribution and storage from traditional and "green" or sustainable methods will be described. Discussions of approaches that lead mankind away from an
cathodic protection, coatings and inhibitors. 3 lec. BoK: NS. Credit Level: U. Credit Hrs: 3.00

20MTEN610
Nanomaterials Science/Biomedical Applications I
To introduce various basic concepts of current nanomaterials and nanotechnology, such as nano- structures, new nanomaterials (nanotubes and nano- wires), synthesis methods, and physical properties. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN611
Nanomaterials Science/Biomedical Applications II
To introduce applications of nanomaterials and nanotechnologies in biomedical areas including nanodevices, biological probes, hyperthermia, virus detection, cancer diagnosis, and drug delivery. The lectures will focus on their unique properties, current developments in nanoscience. BoK: NA. Credit Level: G, U. Credit Hrs: 3.00

20MTEN612
Nanostructured Materials Engineering
This course will address important topics concerning nanostructured materials that are closely related to their science and engineering. A breakthrough area of research at UC will be transferred into the classroom and in the teaching labs. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

H–University Honors course.
Materials Engineering

20MTEN640
Advanced Ceramic Phase Equilibria
interpretation of melting and crystallization behavior in multicomponent phase diagrams and how it influences the design of ceramic formulations. Special emphasis will be given to the non-equilibrium reactions commonly encountered in ceramic processing. 3 lec. BoK: NS, QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN641
Functional Ceramic Devices
Ceramic devices such as capacitors, sensors, transducers, actuators, memory devices, infrared detectors, PTC thermistors, energy converters and smart devices will be described. Testing methods, related experimental equipment and properties will be discussed. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN642
Composite materials
This course is to introduce fundamental concepts for the design, fabrication and mechanical property evaluation of composites. This includes methods of fabricating fibers, matrices and composites, toughening mechanisms in composites, mecachnical properties, role of interfaces. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN643
Ceramic Composites
The objective of this course is to introduce fundamental concepts for the design, fabrication and mechanical property evaluation of ceramic matrix composites. This will include methods of fabricating fibers, matrices and ceramic composites, toughening mechanisms in ceramic and ceramic composites, mechanical properties of ceramic composites, role of interfaces on mechanical properties and micromechanics of ceramic composites. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN644
Ceramic Processing
Ceramic processing as an applied science describes the ability to refine, fabricate and characterize ceramic materials and systems for useful applications. This course deals with the synthesis, refinement and consolidation of these materials into a green state body and the changes that occur during heat treatment of that body. Focus will be on the development of desired properties, requiring careful control of all processing variables. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN645
Glass and Glass/Ceramic Materials
This course will address the structure, chemistry, and properties of glass and glass ceramics. Topics will include the effect of various network formers and modifiers on the behavior of glass, the crystallization processes by which glass-ceramics are made and nonoxide glasses such as fluoride and tellurite glasses. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTEN646
Advanced X-Ray Diffraction
Wide angle and small angle diffraction theory and techniques for study of crystalline and amorphous solids. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN647
Electrical and Optical Properties of Ceramics
This course will cover fundamental principles governing the electrical, optical and magnetic properties of ceramic materials. Specifictopics to be covered are electronic and ionic conductivity, optical properties of ceramics and glasses and magnetic properties of ceramics. Important applications of ceramics based on these properties will also be discussed. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN649
Magnetic, Dielectric and Sensor Properties of Materials
Characteristics directly reflect the unique composition, structure, defect
Materials Engineering

20MTEN695
FEM Applications in Materials Processing
Practical applications to: mechanical processing such as forging, extrusion and rolling; coatings and thin-films; thermo-mechanical processing such as hot-pressing and composite fabrication and multi-stage processes. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN696
Smart Materials
This course deals with recent developments in special materials that can adapt to service requirements. Materials' ability to adapt to changes in shape, physical, mechanical, and electrical responses will be discussed. BoK: NS. Credit Level: G, U. Credit Hrs: 3.00

20MTEN697
Mechanical Behavior of Materials II
Elasticity, plasticity, and fracture and their application to materials behavior. 3 lec. BoK: NS., QR. Credit Level: U, G. Credit Hrs: 3.00

20MTEN698
Failure Analysis and Life Prediction Methods
This course deals with various mechanics and materials principles to analyze failures of structures. A few case studies to illustrate the principles of failure analysis will be presented. Additionally damage and life predictions methods for complex loading conditions will be discussed. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20MTEN701
PHY5 PRIN MAT APP
3 gr.cr. Credit Level: G. Credit Hrs: 3.00

20MTEN711
Advance Materials Technology
3 gr.cr. Credit Level: G. Credit Hrs: 3.00

20MTEN720
Advanced Ferroelectric Properties
Physical effects including dielectric, piezoelectric, electrostrictive, pyroelectric, electro-optic and induced phase transition effects will be introduced. The main parameters which describe the electrical, mechanical and thermal properties and coupling coefficients of ferroelectric ceramics will be covered. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN722
Function Ceramic Devices
FUNCT CER DEVICES Credit Level: G. Credit Hrs: 3.00

20MTEN730
Corrosion of Metals II
In this course emphasis will be on electrochemical aspects of corrosion. Various DC polarization techniques and electrochemical impedance spectroscopy are introduced. The students will do some laboratory experiments using these techniques. Credit Level: G. Credit Hrs: 3.00

20MTEN732
Advanced Polymer Characterization
Experiments with aspects of preparation, characterization of polymers-determination of molecular weight, mechanical properties, crystallinity, transitions. Credit Level: G. Credit Hrs: 3.00

20MTEN735
Advanced Thermodynamics
Review of the concepts of thermodynamics. Model analysis of binary and ternary metallic, ceramic and polymeric systems. Experimental methods and analysis of experimental data. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN736
Statistical Thermodynamics
The basic concepts of statistical mechanics are discussed to show how the thermodynamic properties of solid and liquid materials can be related to the properties of individual atoms and molecules which constitute such materials. 3 lec. Credit Level: G. Credit Hrs: 3.00

Materials Engineering

20MTEN736
Statistical Thermodynamics
The basic concepts of statistical mechanics are discussed to show how the thermodynamic properties of solid and liquid materials can be related to the properties of individual atoms and molecules which constitute such materials. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN745
Scanning Electron Microscopy and Microanalysis
Scanning electron microscopy and microanalysis describes the basic principles of the instrument and electron-specimen interaction phenomena. Also deals with the operation of instruments together with the sample preparations in metals, ceramics and polymers for materials scientists. Special emphasis is placed on microscope analysis and interpretation of the data. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN746
TEM Operation
Transmission electron microscopy describes the basic principles of the instrument and diffraction theory. Also deals with the operation of instruments together with basic techniques using structure analysis for materials scientists. Special emphasis is placed on the relationship between morphology and diffraction pattern and their interpretation. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN748
Diffraction Theory
The course discusses the basic principles governing the diffraction phenomena of x-rays as well as neutrons, lights and electrons from materials. Diffraction from crystalline materials as well as semi-crystalline and non-crystalline materials will be discussed in the context of the reciprocal lattice. Small-angle scattering as well as x-ray and neutron reflectivity will be treated in sufficient detail that the student analyze laboratory data. Credit Level: G. Credit Hrs: 3.00

20MTEN750
Polymerization, Degradation, and Characterization Techniques
Will cover recent developments in the preparation of polymeric materials and the degradation of polymeric materials (including thermal degradation, oxidation and photo-degradation). Analytical methods covered will include thermogravimetric analysis, differential scanning calorimetry, mass spectroscopy, nuclear magnetic resonance spectroscopy and various chromatographic techniques. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN753
Polymer Physics
This course equips students with a knowledge of the terminology and mathematics involved in the physical understanding of polymers, especially topics developed since 1970 involving the statics and dynamics of polymeric materials. Credit Level: G. Credit Hrs: 3.00

20MTEN757
Polymer Morphology
Structures commonly encountered in polymeric materials are discussed with emphasis on industrially important materials and their morphological details. The approach will involve exploring morphology in terms of level of structure. Topics will include crystallizing polymers, structural domains in amorphous polymers, liquid crystalline polymers, block copolymers, phase separated morphologies and the morphology of common filler materials. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN771
Vibrational Spectroscopy of Polymers I
An introduction to infrared and Raman spectroscopy as applied to polymers. Topics discussed include group theory and symmetry, selection rules, crystallinity, orientation, and degradation. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN780
Mechanical Properties of Polymers
Mechanical properties of polymers gives an overview of the thermo-mechanical, deformation and fracture behavior of solid polymers. It
Materials Engineering

20MTEN780 Mechanical Properties of Polymers covers special topics such as rubber elasticity, principles of linear viscoelasticity, non-linear viscoelasticity, yield behavior and fracture of polymers. Credit Level: G. Credit Hrs: 3.00

20MTEN801 Solidification Processing of Materials Theory and applications of solidification of solids. Control of nucleation and growth to produce a desired microstructure and how this relates to the final properties. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTEN860 Master of Engineering Capstone Project Individual projects under supervision of departmental faculty in partial fulfillment of the Master of Engineering degree. Credit Level: G. Credit Hrs: 1.00-6.00

Materials Science


20MTSC641 NANO-Structured Powders: Synthesis Structure and Applications This class is intended to give an overview of the syntheses, industrial production, characterization and applications of nano-structured ceramic, organics and hybrid powders. These materials are used for a wide range of applications including use as catalysis chemical sensors etc. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTSC642 Rubber Science and Technology This course deals with the chemical and physical principles of making and using rubber & associated products. Both science and technology issues will be addressed. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTSC693 Metal Matrix Composite Materials Structure, properties, applications, fabrication and interfacial reactions of metal matrix composite materials. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTSC695 Introduction to Polymer Composites This introductory course on polymer composites will include discussions about matrix resins, reinforcing fibers, micro and macro-mechanics, fabrication techniques and testing procedures. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20MTSC764 THERMO-SOLIDS I THERMO-SOLIDS I Credit Level: G. Credit Hrs: 3.00

20MTSC794 Introduction to Polymer Science Preparation and characterization of polymers; addition and condensation polymerization, stereoregularity, branching, and copolymerization, molecular weight averages and distributions. 3 lec. Credit Level: G. Credit Hrs: 3.00

20MTSC971 Research - Materials Science 1-18 cr. Credit Level: G. Credit Hrs: 1.00-18.00

20MTSC972 Special Projects - Materials Science 1-15 cr. Credit Level: G. Credit Hrs: 1.00-15.00

Nuclear Engineering

20NUC101 MNE Freshman Seminar I Interactive presentations and discussion about the physical basis for nuclear engineering and its relationship to mechanical engineering. Recent developments and awareness of current issues in the nuclear engineering profession. Required of all freshman students in the MNE-ACCEND Program. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20NUC102 MNE Freshman Seminar II Spring Quarter continuation of 20-NUC-101. Further interactive presentations and discussion about the physical basis for nuclear engineering. Recent developments and awareness of current issues in the nuclear engineering profession. Required of all freshman students in MNE-ACCEND. BoK: NA. Credit Level: U. Credit Hrs: 1.00

20NUC211 Fundamentals of Nuclear & Radiological Engineering Survey of major aspects of modern nuclear and radioactivity, elementary theory of special relativity, interactions of radiation with matter, biological effects of radiation, radiisotope applications, neutron reactions and nuclear fission reactor theory. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20NUC245 Fundamentals of Nuclear Reactor Theory Introduction to the fundamentals of nuclear fission reactor theory, delayed neutrons, neutron flux, neutron reaction rates and the neutron current density vector. Fundamentals of neutron diffusion theory in non-multiplying and multiplying regions. BoK: NA. Credit Level: U. Credit Hrs: 3.00


20NUC333 Nuclear Concepts for Engineers Elementary quantum theory, atomic and nuclear processes associated with radioactive decay and radiation emission, physical and biological consequences of radiation interactions, technical basis for radiation protection standards and regulations. BoK: NA. Credit Level: U. Credit Hrs: 3.00

20NUC400 Independent Projects in Nuclear Engineering To be arranged with nuclear engineering faculty member. Offered ea. qtr. BoK: NA. Credit Level: U. Credit Hrs: 1.00-6.00


20NUC524 Radiation Measurement II The second part of the sequence is spent on scintillation detectors, signal processing of scintillation light pulse, photomultipliers, semiconductor detectors, neutron detectors, background radiation, advanced topics on detector response, and gamma ray spectroscopy. BoK: NS. Credit Level: U. Credit Hrs: 3.00

Radiation Interactions I

20NUC534
Radiation Measurement II

The second part of the sequence is spent on scintillation detectors, signal processing, neutron moderation, and gamma ray spectroscopy. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC550
Radiation Shielding Design

Dosimetry definitions, terminology. Methods for calculating neutron and photon attenuation in reactor shields. Shield heating, induced activity, shield design. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC601
Nuclear Reactor Theory & Engineering I

Neutron diffusion and the neutron fission process. Nuclear reactor kinetics, control and materials. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC602
Nuclear Reactor Theory & Engineering II

Fundamental aspects of reactor fuel management, design and safety. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20NUC603
Nuclear Reactor Theory & Engineering III

Analysis of heat transfer, temperature distributions, and fluid flow in the nuclear reactor environment, including the circumstances that can lead to fuel rod centerline temperatures. Applied elements of neutron slowing down theory, phenomenological formulas for calculating the resonance escape probability and power distribution control will also be presented. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC604
Reactor Engineering I

Aspects of nuclear reactor design, heat generation and removal, reactor vessel design, shielding and material consideration. 3 lec. Prereq: 20MECH311, 20MECH414. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC605
Reactor Engineering II

See 20NUC604. 3 lec. Prereq: 20NUC604. BoK: QR. Credit Level: U, G. Credit Hrs: 3.00

20NUC606
Power Engineering

Study of power generation systems in nuclear and conventional plants. 3 lec. Prereq: 20MECH311, 20MECH414. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC608
Nuclear Reactor Systems Dynamics


20NUC610
Light Water Power Reactor Operation

Practical aspects of light water power reactor operations under normal and abnormal conditions. Includes fieldwork on full scope reactor simulators. 3 lec. Prereq: 20NUC656. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC611
Radiation Interactions I

Fundamentals of quantum mechanics and nuclear physics required for nuclear and radiological engineering. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC612
Radiation Interactions II

Nuclear interaction theories and evaluations of cross sections for charged and neutral particles. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC613
Health Physics Lab 1

Application of health physics theory and concepts using radiation detection instrumentation to measure radioactivity in various sample media. 2 lec., 3 lab. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC615
Radiation Interactions

This course will include reviews of nuclear model, nuclear decay and radioactivity, and will focus on the fundamentals of interactions of neutral and charged particles with atomic electrons and nuclei and evaluation of cross sections. BoK: NS. Credit Level: U, G. Credit Hrs: 4.00

20NUC620
In-Core Reactor Fuel Management

Fundamental aspects of the nuclear fuel cycle, basics of nuclear reactor fuel elements, in-core fuel management, spent fuel management, and fuel cycle economics. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC621
Health Phys Lab I

HEALTH PHYS LAB I BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC622
Health Phys Lab II

HEALTH PHYS LAB II BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC630
The Monte Carlo Method

This course provides an introduction to the basic concepts, sampling techniques, error estimates, variance reducing devices of the Monte Carlo method and its application in particle transport calculations. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC640
Introduction to Nuclear Engineering & Health Physics

Introduction to health physics: fundamental particles, radioactivity, biological effects, radiation standards, basic dosimetry calculations. 3 lec. Prereq: 15MATH273. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC641
Radiological Engineering

Sources of transport, groundwater modeling, environmental pathways, internal dosimetry, external dosimetry, and health effects. 3 lec. Prereq: 20NUC640, 15MATH273. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC642
Health Physics Laboratory

Analysis of radioactivity in environmental samples, principles of Health Physics Lab work, worker protection fundamentals, radiation monitoring of workers and environment. 2 lec., 3 lab. Prereq: 20NUC641. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC643
Introduction to Nuclear Criticality Safety

Fundamental aspects of criticality safety, analysis methods, experimental methods, accidents, and regulations for criticality safety. 3 lec. Prereq: 20NUC502. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC644
Radiation Effects of Materials

Mechanisms for radiation-induced changes in materials properties. Selection of materials and design techniques to minimize radiation effects. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

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H=University Honors course.
Nuclear Engineering

20NUC645
Monte Carlo Criticality Analysis
Individual and team project analysis of criticality safety problems using KENO and MCNP Monte Carlo codes. Double contingency analysis of nuclear engineering processes. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC646
Fundamentals of Neutron Activation Analysis
The objective of the course is to provide the student with a broad-base background on the engineering aspects of neutron activation analysis (NAA). This class will involve both lectures and labs to provide the student with experience in the aspects of NAA. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

20NUC648
Radiological Pathway Analysis
Source term analysis, activity scenario development, radiological transport mechanisms, dose calculations, risk and health assessment, computer program applications. 3 lec. Prereq: 20NUC641. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC650
Nuclear Reactor Computations

20NUC656
Light Water Power Reactor Systems
Examination of physical basis for common functional requirements of principal systems required for safe and efficient operation of power reactors. Study of how requirements are implemented for principal types of currently operating light water reactors. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC660
Health Physics II
Internal dosimetry: ICRP models and analysis, MIRD method, radiation protection, external dosimetry, use of computer analysis to calculate dose, trends in health physics research. 3 lec. Prereq: 20NUC640. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC680
Probabilistic Risk Assessment
Use of stochastic techniques to assess nuclear power station risks. Application of fault and event tree analyses to evaluate accident sequences and probability. Probabilities coupled with evaluated consequences to establish risk. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC681
Boiling Heat Transfer and Two-Phase Flow
The fundamental processes governing boiling heat transfer and two-phase flow will be examined and predictive procedures presented. 3 lec. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC683
Environmental Radioactivity
Study of origin, concentration, and distribution of naturally occurring and technically enhanced radioactive material in the environment and biological effects of those materials. 3 lec. Prereq: 20NUC640. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC683H
Environmental Radioactivity
Study of origin, concentration, and distribution of naturally occurring and technically enhanced radioactive material in the environment and biological effects of those materials. 3 lec. Prereq: 20NUC640. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC690
Nuclear Engineering Seminar
Selected topics in Nuclear Engineering. BoK: NA. Credit Level: U, G.

Nuclear Engineering

20NUC690
Nuclear Engineering Seminar
Credit Hrs: 1.00

20NUC691
NRE Research Seminar
Seminars on research topics and/or current events delivered by NRE students to aid in developing skills necessary for effective written and verbal technical communication. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

20NUC711
Nuclear Physics for Engineers
NUCLEAR PHYS-ENGR BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC712
Nuclear Physics for Engineers
See 20NUC711. 3 lec. Prereq: 20NUC711. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

20NUC700
Research In Health Physics
Research projects in health physics and radiological engineering. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC800
Master's Thesis Research
For graduate students working on a Masters Thesis. Credit hours to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC811
Neutron Transport I
Methods for solving neutron transport equation; spherical harmonics, discrete ordinates, Monte Carlo and perturbation variational techniques. 3 lec. Prereq: 20NUC503. Credit Level: G. Credit Hrs: 3.00

20NUC812
Neutron Transport II
See 20NUC811. 3 lec. Prereq: 20NUC811. Credit Level: G. Credit Hrs: 3.00

20NUC821
Special Topics in Nuclear Engineering
Specialized and developing topics such as last reactors, nuclear safety analyses, isotope power sources, and pulsed neutron techniques. Credit Level: G. Credit Hrs: 2.00-6.00

20NUC822
Special Topics in Nuclear Engineering
See 20NUC821. 3 lec. Credit Level: G. Credit Hrs: 3.00

20NUC823
Special Topics in Nuclear Engineering
See 20NUC821. 3 lec. Credit Level: G. Credit Hrs: 3.00

20NUC870
MS Research
Individual research topics under supervision of departmental faculty, not for the MS thesis. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC871
Topics in Nuclear Engineering
Special problems on a conference basis. Hours and credit to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC872
Projects, Master of Science
Special projects directed by individual faculty. Credit Level: G. Credit Hrs: 1.00-6.00

20NUC901
Readings
Directed study of problems selected for independent study. Offered each Quarter. Credit Level: G. Credit Hrs: 1.00-15.00
Nuclear Engineering

20NUC902
Readings In Health Physics
Supervised readings course in Health Physics for the purpose of identifying research topics. Credit Level: G. Credit Hrs: 1.00-6.00

20NUC903
Research in Nuclear Engineering
Research projects related to the field of nuclear science and nuclear engineering. Credit Level: G. Credit Hrs: 1.00-15.00

20NUC950
Nuclear Engineering PhD Fundamentals Exam
Nuclear Engineering PhD Fundamentals candidacy exam, part 1. Credit Level: G. Credit Hrs: 0.00

20NUC971
Dissertation
Research for the PhD dissertation. Cr. to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

Professional Development

20PD502
Professional Dev II
Professional Dev II BoK: NA. Credit Level: U. Credit Hrs: 1.00

H=University Honors course.
Business, Commercial and Labor

24BCL501 Contracts
This course covers basic concepts and doctrines in contract law, including the legal grounds for enforcement of promises, the role of consent in contract formation, contract remedies, and interpretation. Attention is given to both the common law of contracts and to Article 2 of the Uniform Commercial Code, which governs transactions in goods. Credit Level: P. Credit Hrs: 4.00-6.00

24BCL502 Torts
Torts examines the three basic theories of civil (non-criminal) liability for injuries to persons and property: intentional torts, negligence and strict liability. These subjects are considered together with causation problems, defenses to liability (such as consent, self-defense, comparative negligence and assumption of risk), and affirmative duties. Credit Level: P. Credit Hrs: 4.00-6.00

24BCL701 Agency-Partnership Law
The legal principles governing agency and partnership are explored. Special attention is given to the creation and termination of agency and partnership relationships as well as to the rights, duties and powers of principal, agent and third party in the agency setting. Employment terms, trade secrets and vicarious liability are discussed. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL704 Bankruptcy
This survey of bankruptcy law covers basic concepts such as the automatic stay, adequate protection and property of the estate and also examines personal and business bankruptcy options under Chapters 7, 11, and 13. The course gives limited treatment to non-bankruptcy law of debt collection. It is recommended, but not required, that Commercial Law I be taken first. Prereq: 24BCL706. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL705 Bankruptcy: Business Reorganization
This seminar deals with business rehabilitation utilizing the Bankruptcy Code. The major portion of the course is devoted to Chapter 11. Significant attention is also paid to Chapter 13. It is recommended, but not required, that Bankruptcy be taken first. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL706 Commercial Law I
This course covers basic commercial law doctrine, focusing on two central devices in commercial credit, negotiability and the security interest. The law of these devices is found principally in Articles 3 and 9 of the Uniform Commercial Code. The treatment of security interests in bankruptcy is also covered. The topics to be addressed include the use of notes to separate payment obligations from their underlying transactions, creation and perfection of security interests in personal property, and priorities and remedies upon default in these secured transactions. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL707 Commercial Law II
This course covers the law of domestic and international sales as well as the payment devices used in these transactions. After dealing with basic sales law doctrine, the course will focus on bringing together the law governing complex sales transactions. Duties covered include warranties, remedies, performance and risk of loss under Article 2 of the Uniform Commercial Code. This domestic law will be compared to the United Nations Convention on Contracts for the International Sale of Goods. The course also covers the law of payment devices used in sales transactions, including checks, documentary drafts and letters of credit. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL711 Corporate Transactions Negotiating and Drafting
This course involves the study of the law affecting the American modern private business corporation. It deals with problems connected with organizing and funding a new corporation, the control and management of the corporation, the duties of directors, officers and controlling shareholders and liability for breach of these duties, and with transactions in shares of the corporation by directors and other "insiders," including the impact of U.S. securities laws upon such transactions. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL712 Antitrust
This course covers sections 1 and 2 of the Sherman Act, sections 2 (Robinson-Patman), 3 and 7 of the Clayton Act, and section 5 of the Federal Trade Commission Act, and their extensive judicial gloss. The legal concepts include ventures which substantially lessen competition or tend toward monopoly in any product in any section of the country. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL713 Food, Drug and Safety Laws
Examines regulation of products used by consuming public. Covers Food and Drug Administration, Consumer Product Safety Commission and certain Environmental Protection Agency regulatory programs. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL715 Labor Law
Areas covered in this survey course include organization, representation, and collective bargaining; strikes, picketing, boycotts, and other economic pressures; economic pressures by employers such as lockouts and subcontracting; and union security. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL717 Mediation in the Labor Public Sector
This course emphasizes the mediation process and the significant differences between the private and public sector in labor relations.
Business, Commercial and Labor

24BCL717 Mediation in the Labor Public Sector
Students are separated into two groups of associates in law firms that represent either a county or union local that have reached impasse in bargaining. The students present the case to a professional mediator. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL718 Product Liability
Examines injury compensation systems that allocate the costs of harm to product makers, insurers, and consumers. Prepares the student for active participation in litigation, risk avoidance counseling, and the legislative and regulatory systems that impact on safe products. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL719 Securities Enforcement and Litigation
This course will explore the various ways in which the federal securities laws are enforced to protect investors and the public interest in a fair and open market. In the course of study, we will consider: 1) the investigation and enforcement powers of the SEC and self-regulatory organizations such as the NYSE and the NASD; 2) the criminal law provisions under which violations of the securities laws may be prosecuted; 3) litigation instituted against individual and corporate defendants by private plaintiffs such as shareholders and other investors; and 4) the development of compliance programs and codes of conduct designed to deter and prevent transgressions. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL720 Securities Regulation
This overview of federal securities laws stresses the registration requirements of the Securities Act of 1933 and the regulatory provisions of the Securities Exchange Act of 1934. State securities laws are considered in general and the Ohio Securities Act is reviewed in particular. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL721 Worker’s Social Legislation
Provides an introduction to the theory and practice of the state and federal laws which are intended to protect workers’ health and livelihood from the many risks of the workplace. Specific topics include: workers’ compensation, unemployment compensation, the Occupational Safety and Health Act, and the Social Security Act. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL722 Employment Law
This course will focus on the legal relationship between employer and the individual employee. It will cover the common law aspects of that relationship, particularly contacts and torts. It will then examine statutory modifications of the common law; statutes that may be examined include ERISA, the Civil Rights Acts, whistle-blower protection legislation, unemployment and workers compensation acts, Fair Labor Standards Act and OSHA. The course is recommended for students contemplating a labor law, corporate or general practice. Credit Level: P. Credit Hrs: 3.00

24BCL723 Advanced Torts
This course will cover topics not covered in the basic course. In today’s legal world, tort law provides some of the most cutting edge issues. This course will supplement and enhance the curriculum offerings in corporate law and in constitutional law, with an emphasis on the constitutional torts such as defamation and privacy. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL724 Government Contracts: Formation & Administration
This course will provide an overview of the basic considerations in contracting with the federal government, including the sovereign’s power to contract, the applicable statutes, regulations and administrative orders, and sovereign immunity. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL725 Product Liability
Examines injury compensation systems that allocate the costs of harm to product makers, insurers, and consumers. Prepares the student for active participation in litigation, risk avoidance counseling, and the legislative and regulatory systems that impact on safe products. Credit Level: P. Credit Hrs: 2.00-4.50

24BCL726 International Labor & Employment Law
This course surveys various aspects of international labor and employment law and examines human rights, labor rights and labor standards in the context of an international economy heavily regulated by bilateral and multilateral trade agreements. The seminar materials will include background readings on labor, human rights, and international trade law and policy, as well as detailed discussion of issues where the labor, human rights and trade policy intersect. Credit Level: P. Credit Hrs: 2.00-3.00

24BCL727 Employee Benefits Law I
This course will focus on the law controlling qualified retirement plans, beginning with the passage of the Employee Retirement Income Security Act of 1974 (ERISA) and ending with the changes under the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) (or more recent subsequent legislation, as applicable). Emphasis will be placed on the policy issues underpinning the development of employee benefit law, as well as the practical application of the law. The course will emphasize representations of the plan sponsor. Credit Level: P. Credit Hrs: 3.00-4.50

24BCL728 Payment Systems
This is a core course in the area of commercial law. It builds upon basic contract and property principles to introduce you to important commercial concepts such as negotiability and good-faith purchase and how those concepts operate in a wide variety of settings. It covers legal rules that govern several familiar payment systems and devices: negotiable instruments (e.g., notes and checks), wire transfers, credit cards, and electronic fund transfers. With respect to each payment system, we will try to get a basic understanding of the operations and economics of the system as well as the governing law. Study of the law of modern payment systems provides an ideal opportunity for examining a phenomenon typical of modern law: widely scattered and rapidly changing sources of law. The applicable law is found, inter alia, in Art. 3, 4, 4A of UCC; various federal statutes and Federal Reserve System regulations; private agreements, such as those governing clearing houses and back credit card arrangements; and, of course, basic common law concepts. Credit Level: P. Credit Hrs: 3.00-4.00

24BCL729 Sales
This course covers issues relating to contracts for the sale of goods under Article 2 of the UCC. The issues involve formation of such contracts, terms, mechanics of performance, warranties, and the remedies for various defaults. This class’s approach to Art. 2 of the UCC is based on two premises: first that the ability to read and understand statutes is a vital skill for lawyers; and, second, that you (the students) can best learn Art. 2 (and most statutes) by reading, deconstructing, and reconstructing the statutory language for yourselves. Indeed you will learn the UCC better this way than by reading exclusively cases, since cases only tell you what judges think the Code means. Credit Level: P. Credit Hrs: 2.00-4.00

24BCL730 International Trade
The regulation of international trade is an increasingly important aspect of law, business, domestic politics, and international affairs. This course will examine international trade law, focusing on the World Trade Organization and the international agreements that are part of the WTO system, especially the General Agreement on Tariffs and Trade (GATT). We will begin with basic international trade theory and policy and proceed to examine procedural and substantive aspects of the
This course continues issues first explored in Civil Procedure I. It opens counterclaims and amendments. Credit Level: P. Credit Hrs: 3.00-4.50

Also given to the decision in Erie RR v. Tompkins and its progeny, venue and federal subject matter jurisdiction are explored. Coverage is complaint up to the discovery process. Jurisdiction over the person, separation of powers, and equal protection. Credit Level: P. Credit Hrs: 3.00-4.50

This is an introductory course covering judicial review, federalism, companies, will be the subject of the remainder of the semester. Credit Level: P. Credit Hrs: 2.00-4.00

A study of basic concepts and limitations of financial accounting, this course covers the financial reporting process and the developments of financial statements for external users, such as investors and creditors. Techniques for analyzing financial statements and auditing them are introduced. The course is designed for students with no background in accounting; students with such a background must not register. Credit Level: P. Credit Hrs: 2.00-4.00

This course studies the venture capital (VC) and private equity (PE) industries. The emergence of institutional VC and PE firms in and after the 1990s will be highlighted in the first four weeks of the semester, as will the legal and economic structures of such firms. Fundraising by such firms and investor perspectives will also be examined during this period. How VC/PE firms operate will be the primary focus of the next six weeks of the semester, with emphasis on how VC/PE firms screen, select, value and monitor investee companies, investment transaction structures and "down" round financing issues. Investment "exits" and related matters, such as legal issues faced by VC/PE-controlled public companies, will be the subject of the remainder of the semester. Credit Level: P. Credit Hrs: 1.00-5.00

This course will cover the nature and causes of global and transnational environmental problems, international law and institutions for environmental protection, the problems of subsistence economies, and relationships between the developed worlds. Credit Level: P. Credit Hrs: 3.00-4.50

This course is an introduction to the economic or business side of the international legal system through which public and private transactions occur. It includes the legal environment for creating new wealth, producing and distributing in world markets, disruptions in markets by political decisions or events, settling disputes both private and between private parties and governments, reducing tariffs and barriers to trade, minimizing conflicts and extraterritorial enforcement of antitrust, export control and handling problems in the conduct of international litigation. Credit Level: P. Credit Hrs: 3.00-4.50
International

24INTL705 International Intellectual Property
This course examines the various mechanisms by which intellectual property rights are granted and enforced worldwide—mechanisms that have become increasingly important in our “world without borders.” Topics include treaties covering copyrights, trademarks, designs, and patents; the World Intellectual Property Organization; the regulatory systems of the European Union and other regional bodies; and the ways in which intellectual property owners may navigate these systems and, ultimately, protect their intellectual property across the globe. Students also will learn about special problems relating to international intellectual property law, such as developing countries and developing technologies. Prereq.: Introduction to Intellectual Property Law or Copyright Law and Trademark and Unfair Competition. Credit Level: P. Credit Hrs: 2.00-4.50

24INTL706 International Law
This course is the core upper-level course for those students interested in international or comparative law. The course examines the process of public and private decision-making in the transnational context as well as the role of international lawyers in public and private relations and institutions in the post-Cold War era. The course uses structured problems to explore the tools of law as they are employed as an instrument of international policy in a range of human activities across national boundaries. Specific issues examined in this course include problems of jurisdiction, sources of international law in treaties and custom, processes for resolving disputes between private parties or between private parties and governments, available remedies and the enforcement of international legal rights in general. International law is a foundation for further studies in international law and policy, such as Int’l Bus. Trans., Int’l Human Rights, Int’l Environ. Law and Int’l Legal Theory. Credit Level: P. Credit Hrs: 3.00-4.50

24INTL708 Int’l Commercial Arbitration
International arbitration has increased as a function of world trade. This course gives students a basic foundation in the mechanics of international commercial arbitration and an understanding of the tactical choices that frequently confront international arbitration practitioners. In particular, the course will examine systematically, through statutes, rules, national and international cases, and treatises, the establishment, operation, and implementation of awards of international commercial arbitration tribunals; the role of national courts in compelling, facilitating, and enforcing or vacating arbitral awards; and policies currently under consideration for changing arbitral practices. This course will be valuable for students planning to practice in the area of business transactions, as arbitration is frequently the dispute settlement method of choice for firms dealing with their counterparts in other countries. Even students whose practice will seemingly focus exclusively on domestic transactions will need to know the basics of international commercial arbitration, as advising, planning, and structuring are increasing tasks. Credit Level: P. Credit Hrs: 2.00-4.00

24INTL712 International Human Rights (Current Problems in): Women’s Human Rights
Students in this course will undertake a study in the status of women’s human and legal rights globally. The course will focus on the current status of the rights of women in a variety of countries and cultures, and as they relate to issues of health, personal and political rights. The students will examine the role of domestic laws, international human rights instruments and traditional cultural values as they define the rights of women. Credit Level: P. Credit Hrs: 3.00-4.50

24INTL713 International Environmental Law
This course will cover the nature and causes of global and intranational environmental problems, international law and institutions for environmental protection, the problems of subsistence economics, and relationships between the developed worlds. Prereq.: Environmental Law I or perm of instr. Credit Level: P. Credit Hrs: 2.00-3.00

24INTL714 International Criminal Law
This course will introduce students to the principles of jurisdiction for international criminal law. Those principles will then be applied to the Foreign Corrupt Practices Act, antitrust and securities regulation, export controls, economic espionage, computer crimes, narcotics and money laundering, piracy and terrorism, and torture. Next, the course considers procedural aspects of trying those cases in United States courts, such as the extraterritorial application of the US Constitution, immunities from jurisdiction, mutual assistance in criminal cases, extradition and its alternatives, prisoner transfers, and recognition of foreign criminal judgements. Finally, the course examines the prosecution of international tribunals; human rights and criminal procedure, the Nuremberg and Tokyo precedents, the UN Yugoslav and Rwanda tribunals, the International Criminal Court, and the substantive law of international crimes, such as aggression, genocide, crimes against humanity, and war crimes. Credit Level: P. Credit Hrs: 2.00-4.50

Individual Rights and Liberties

24IRTS501 Constitutional Law II
This required course covers individual rights and freedoms, including the incorporation of the Bill of Rights as against the States, freedom of speech and religion, due process, economic and personal liberties and state action. Credit Level: P. Credit Hrs: 2.00-4.50

24IRTS701 Civil Liberties
This course examines legislation, such as section 1983 of the Civil Rights Act, designed to protect constitutional rights. Defenses and immunities are explored, as are available remedies. Legislation dealing with housing, discrimination in contractual relations, employment discrimination and voting rights is also examined. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS702 Criminal Procedure I
This introductory course deals with the constitutional aspects of various police practices, focusing primarily on the Fourth, Fifth, and Sixth Amendments to the US Constitution. The course specifically addresses the right to counsel; arrest, search and seizure; wiretapping, electronic eavesdropping and the use of secret agents; police interrogation and confession; and the scope and administration of the exclusionary rules. Recommended prerequisite for Criminal Procedure II. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS703 Criminal Procedure II
This continuation of Criminal Procedure I deals with the defense of entrapment; eyewitness identifications and lineups; pre-trial release; the decision whether to prosecute; the preliminary hearing; grand jury investigations and review; the location and scope of the prosecution; the right to a speedy trial, notice, discovery and disclosure; coerced and negotiated guilty pleas; trial by jury; the criminal trial itself; double jeopardy; and appeal. It is recommended that Criminal Procedure I be taken first. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS704 Education Law
Examines legal issues encountered at all levels of education. Course will focus on such problems as academic freedom, curriculum control, censorship, mandatory education, church - state issues, faculty and student rights, tort and civil rights liability of educational institutions, and educational opportunity, including rights of the handicapped. Credit Level: P. Credit Hrs: 3.00-4.50
Individual Rights and Liberties

24IRTS705
Employment Discrimination
This course surveys the major legislative and executive provisions prohibiting various types of discrimination in employment. Discrimination is considered in the context of hiring, promotion, discharge, benefits, conditions, and the like. Consideration is also given to the procedures applicable to employment discrimination cases.
Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS706
Family Law
Primary focus is on the relationship between law and the family in the context of the creation, maintenance and restructuring of domestic relations. Special attention is given to the nature of marriage, separation, divorce, dissolution, support, alimony and child custody.
Credit Level: P. Credit Hrs: 2.00-4.50

24IRTS707
First Amendment Seminar
Directed principally at exploring freedom of speech and freedom of religion, this seminar enables each student to consider both the historical development of and contemporary cases and issues related to the First Amendment.
Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS708
Gender and the Constitution
This course explores gender equality from the perspective of U.S. constitutional law. Decisions, principally by the U.S. Supreme Court, in the areas of reproductive freedom, single sex education, affirmative action, and pornography will be discussed. The course will also explore the perspectives of feminist legal theorists as well as the work of constitutional scholars with respect to methods of constitutional interpretation.
Credit Level: P. Credit Hrs: 2.00-4.50

24IRTS709
Human Rights Seminar
This course examines the Universal Declaration of Human Rights and the International Covenants on Civil and Political Rights, and Economic, Social, and Cultural Rights along with several treaties which have been promulgated relating to such matters as genocide, refugees, racial discrimination, and the political rights of women. Using a problem-oriented approach, students engage in a number of lawyering roles such as presenting testimony before the Senate Foreign Relations Committee, oral argument before the US Supreme Court, and drafting a petition for submittal to the United Nations Subcommittee on Prevention of Discrimination and Protection of Minorities.
Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS711
Immigration and Nationality Law Review: Editor
Immigration & Nationality Law Review: Editor (EIC) shall be responsible for all final editorial decisions made relative to the editing of the contents of the review; the progress of the final edited version of the Review; and initiating organic changes to the Constitution. The powers of the EIC by default are those not assigned to other editors for the purposes of ongoing organization. The powers of the EIC may not be delegated to any committees without permission of the Faculty Advisor. The EIC may be one or more third year students, selected by the outgoing board and by the faculty advisor at the end of the year prior to their service as EIC.
Credit Level: P. Credit Hrs: 3.00

24IRTS712
Immigration and Nationality Law Review: Articles Editor
See Above Information on Editor.
Credit Level: P. Credit Hrs: 2.00

24IRTS713
Immigration Law and Policy
Students are introduced to national and international legislation and decisions concerning the entrance and residence in the United States by aliens, including the social, economic and political aspects thereof.
Credit Level: P. Credit Hrs: 2.00-4.50

Individual Rights and Liberties

24IRTS714
Juvenile Law
Surveys the various components of the juvenile justice system in the context of jurisdiction, rights and obligation of the parties, and dispositions. Areas of concentration include delinquency, unruliness, dependency, neglect, child abuse and contributing to the delinquency of minors. Some attention is also given to torts, contracts, and student rights.
Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS715
Freedom Center Journal of Law and History: Editor
This journal will support the intellectual efforts of the Underground Railroad and Freedom Center. The purpose of the journal is to generate an historical analysis of the response of oppressed peoples to unjust laws; the primary, but not exclusive, focus is African-American history. The Journal will also offer an additional opportunity for black law students to gain writing and editing skills. The academic work for student credit is similar to the requirements established by the LAW REVIEW and HUMAN RIGHTS QUARTERLY.
Credit Level: P. Credit Hrs: 3.00

24IRTS716
Freedom Center Journal of Law and History: Articles Editor
This journal will support the intellectual efforts of the Underground Railroad and Freedom Center. The purpose of the journal is to generate an historical analysis of the response of oppressed peoples to unjust laws; the primary, but not exclusive, focus is African-American history. The Journal will also offer an additional opportunity for black law students to gain writing and editing skills. The academic work for student credit is similar to the requirements established by the LAW REVIEW and HUMAN RIGHTS QUARTERLY.
Credit Level: P. Credit Hrs: 2.00

24IRTS717
Poverty and the Law
The seminar seeks to develop an appreciation of the law's role as a significant factor in the social and economic conditions of society. Some of the questions addressed in the seminar are: What are the problems of the poor? What is, and has been, the role of law with respect to these problems? What is, and should be, the role of the legislature in alleviating inequalities? An understanding of the substantive law in the area is only the first step in the resolution of these issues.
Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS718
Problems in Litigating Civil Rights
The first area to be examined will be what rights are due individuals and their constitutional and statutory sources with emphasis on the linkage between those directed at historical racial issues and contemporary problems of age and disabilities. Next, there will be an examination of the forum that is most appropriate for vindicating the rights. Finally, the seminar will examine the issues which relate to the nature and extent of remedies to be fashioned for violations of civil rights.
Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS720
Gender and the Constitution
This course explores gender equality from the perspective of US constitutional law. Decisions, principally by the US Supreme Court, in the areas of reproductive freedom, single sex education, affirmative action, and pornography will be discussed. The course will also explore the perspectives of feminist legal theorists as well as the work of constitutional scholars with respect to methods of constitutional interpretation.
Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS721
Sexual Orientation and the Law
This course will explore the relationship between sexual orientation and the law, encompassing recent decisions by the US Supreme Court, the Hawaii trial court's decision in the gay marriage case, and legislative responses, such as the Defense of Marriage Act. Constitutional privacy, the right to public access, and first amendment issues as they relate to
Individual Rights and Liberties

24IRTS721
Sexual Orientation and the Law
sexual identity/orientation will be examined. Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS722
White Collar Crime
Examines the special problems of proving a 'guilty mind' and a 'guilty act' in the context of business and government activities. Specific emphasis will be placed on corporate criminal liability, personal liability in organizational settings, conspiracy, mail fraud, false statements, perjury and false declarations, obstruction of justice, bribery of public officials, and RICO. The Racketeer Influenced and Corrupt Organizations Act. Credit Level: P. Credit Hrs: 3.00-4.50

24IRTS729
Criminology and Civil Disability
This course will address the implications of criminality, and the civil disabilities that members of our society endure following the discharge of their sentences. Such disabilities range from the prohibition to bear arms to the inability to exercise the right to vote. The course will offer contemporary American and Jewish perspectives on the subject of criminality, guilt, and innocence, as well as various issues relating to the re-integration of offenders into society and the notion of civil disability. Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS730
Death Penalty: Race, Poverty and Disadvantage
This course will examine the process of imposing the death penalty, with emphasis on legal representation for people who cannot afford lawyers, and racial discrimination. It will address the influence of race, poverty, politics, and the passions of the moment in decision making in capital cases; prosecutorial discretion; judicial independence; the participation of people of color as jurors, judges, prosecutors, and attorneys in the criminal justice system; mental health issues; and the appropriateness of the death penalty for people who are mentally retarded, mentally ill, or children. Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS731
Criminal Procedure Capstone
Criminal Procedure Capstone is designed to prepare students for the transition to criminal defense practice. The course will focus on pre-and post-guilty plea process. Students will participate in a simulation of the federal sentencing process, including writing a sentencing memorandum and arguing a client's position at a sentencing hearing before a guest judge. Credit Level: P. Credit Hrs: 3.00-4.00

24IRTS732
Wrongful Convictions: Causes & Remedies
The course will address the primary causes of wrongful convictions, and the legal remedies. Each week a different topic will be presented. Examples of weekly topics include eyewitness misidentification, false confessions, junk science, bad defense lawyering, prosecutorial misconduct, "Brady" violations, etc. Students will read articles about this topic, and in class we might watch a video or have a guest speaker in addition to engaging in discussion about the topic. Credit Level: P. Credit Hrs: 1.00-4.00

24IRTS736
Capital Punishment
This course will examine the process of imposing the death penalty, with emphasis on legal representation for people who cannot afford lawyers, and racial discrimination. It will address the influence of race, poverty, politics, and the passions of the moment in decision making in capital cases; prosecutorial discretion; judicial independence; the participation of people of color as jurors, judges, prosecutors, and attorneys in the criminal justice system; mental health issues; and the appropriateness of the death penalty for people who are mentally retarded, mentally ill, or children. Credit Level: P. Credit Hrs: 2.00-3.00

Individual Rights and Liberties

24IRTS737
Domestic Relations/Domestic Violence Clinic
In this one semester clinical program students advocate for victims of domestic violence in civil protective order hearings and address family law issues that arise in the protective order context, including child support and custody. As needed, students may assist attorneys at the Legal Aid Society of Greater Cincinnati by researching family law issues (as well as assisting in related matters) that arise during the course of Legal Aid's representation of clients in divorce and other family related issues. Credit Level: P. Credit Hrs: 2.00-5.00

24IRTS738
Domestic Relations/Domestic Violence Field Placement
Field Placement requirement of this course. Students must enroll concurrently. Credit Level: P. Credit Hrs: 2.00-5.00

24IRTS739
Domestic Violence Civil Protection Order Clinic (2L)
Concurrent enrollment in Domestic Violence Civil Protection 2L Clinic Field Experience course required. Enrollment by permission of instructor. Credit Level: P. Credit Hrs: 1.00-4.00

24IRTS740
Domestic Violence Civil Protection Order Clinic Field Experience (2L)
Concurrent enrollment in Domestic Violence Civil Protection 2L Clinic course required. Enrollment by permission of instructor. Credit Level: P. Credit Hrs: 1.00-4.00

24IRTS774
Habeas Corpus and Post Conviction Remedies
This class will focus upon practical and procedural issues involving criminal post-conviction remedies at both the state and federal levels. The class will examine not only the constitutional aspects of collaterally attacking a conviction, but will also address the mechanisms of litigating post-conviction appeals. While not excluding other types of cases, the class will concentrate on the death penalty, using as a model a current case. Criminal Procedure I is a prerequisite for this course. Credit Level: P. Credit Hrs: 2.00-4.00

24IRTS775
Innocence Project: Wrongful Convictions
In this course, students examine the various types of evidence that might lead to the wrongful convictions of innocent persons. They will also consider the roles police, prosecutors and defense lawyers play in the criminal justice system, with an emphasis on discovering how errors can lead to the conviction of the innocent. Credit Level: P. Credit Hrs: 2.00-4.00

24IRTS776
Innocence Project: Field Placement
Students will be assigned to one or more cases of Ohio inmates convicted of serious crimes who have steadfastly maintained their innocence. Working with volunteer attorneys, students will consider and select investigative avenues which show promise for establishing that the case was wrongly decided. The goal of the project is to obtain the release of innocent inmates. Credit Level: P. Credit Hrs: 4.00-6.00

24IRTS777
Critical Race Theory
In the mid-1980's, a new scholarly movement developed in legal academia, Critical Race Theory. Early advocates of CRT-challenged both the substance and style of conventional legal scholarship. Substantively, race cri.ts rejected formal equality, individual rights, and color-blind approaches to solving legal problems. Stylistically, critical race scholars often employed new methodologies for legal scholarship, including storytelling and post-modern and poststructural analysis. The goal of this two-credit seminar is to examine the genesis of CRT and, in light of its theoretical commitments, to explore CRT's possibilities and limitations. Such an exploration will require us to think carefully not only about race and racism, but also about sexism, classism, and heterosexism. Thus, some of the readings will be drawn from Critical Legal Studies, Feminist Jurisprudence, and Queer or Sex
Individual Rights and Liberties

24IRTS777
Critical Race Theory
Criticism. Hopefully, the seminar will provide an opportunity for us to challenge—critically and collegially—our most basic assumptions about race, law, and racial justice. Credit Level: P. Credit Hrs: 2.00-4.00

24IRTS982
Human Rights Quarterly: Article Editor
Human Rights Quarterly: Article Editor. Participating students engage in the selection and editing of articles for publication in the UC Human Rights Quarterly. Students also write notes and comments for publication in the Quarterly. Open only to student contributors to the Quarterly. Credit Level: P. Credit Hrs: 2.00-3.00

24IRTS988
Human Rights Quarterly: Editor
Participating students engage in the selection and editing of articles for publication in the UC Human Rights Quarterly. Students also write notes and comments for publication in the Quarterly. Open only to student contributors to the Quarterly. Credit Level: P. Credit Hrs: 3.00-4.50

Law

24LAW801
One Semester Only FT
ONE SEMESTER ONLY FT Credit Level: P. Credit Hrs: 12.00-18.00

24LAW802
LAW CONTINUING PT
LAW CONTINUING PT Credit Level: P. Credit Hrs: 1.00-11.00

24LAW803
Consortium
Course created for students taking a course at another institution through the Consortium. Credit Level: P. Credit Hrs: 1.00-12.00

24LAW901
Exchange Student-Law
Special Permission needed to enroll in this course Perm of College. Credit Level: P. Credit Hrs: 12.00

24LAW902
Exchange Student-Law (special fee)
Special Permission needed to enroll in this course Perm of College. Credit Level: P. Credit Hrs: 12.00

Litigation and Skills

24LITG701
Lawyering II
This course covers basic techniques of oral and written advocacy, which the student practices by representing one of the parties in a hypothetical case at the trial court level. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG702
Lawyering I
This course covers skills basic to competent legal research and writing. The students write objective memoranda of law based on hypothetical problems composed by the instructors. The course emphasizes issue recognition, case and statutory interpretation, legal analysis, and the use of plain English. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG701
Justice and the Legal System
This course examines various tensions between law and justice in the legal system. By focusing on the role of justice in advocacy, the course will endeavor to equip students to be more effective advocates. By focusing on the function of justice in judicial decision-making, the course will endeavor to provide greater insight into the influence of justice in judicial decisions. The grade in this course will be based on participation in class discussion, as well as upon a paper. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG703
Appellate Advocacy
Working with the record of a case tried in a Hamilton County court, students prepare appellate briefs and present oral arguments. The grade is based not on competition but on the final product of each student. Recommended that Appellate Practice and Procedure be taken first. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG704
Appellate Practice and Procedure
This covers the role and function of appellate courts: preserving issues for appeal; appealability; appeal strategy; the record on appeal; briefs and oral argument; operating procedures of appellate courts; motion practice; extraordinary writs; and related matters. Each student prepares a critique of an actual case pending in an appellate court. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG705
Complex Litigation
Introduces the students to the increasing trend toward complex litigation (cases with complex issues, multi-party cases, and multi-forum cases). Explores the use of procedural devices; the functioning of the judicial panel on multi-district litigation; and case management by lawyers, judges, and special masters. Credit Level: P. Credit Hrs: 3.00

24LITG706
Conflict of Laws
This course deals with the legal ramifications of disputes involving contacts with two or more states or foreign jurisdictions. The choice of law evolution is explored, from both a doctrinal and policy perspective. Included are issues of constitutional limitations on choice of law, the extraterritorial application of American law, and special problems raised by the enforcement of foreign judgments. Credit Level: P. Credit Hrs: 2.00-4.50

24LITG707
Evidence
This course focuses on the proof of facts in a trial court. Common law doctrines are contrasted with evidence rules created by statute as exemplified by the Federal Rules of Evidence. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG708
Introduction to Client Interviewing & Counseling
This course will include basic theory and techniques of interviewing and counseling, including the underlying psychological issues and prescriptions for effective communication and assisting clients in understanding alternatives and making decisions. Classroom demonstration, simulation exercises and discussion will be used to place the student in the position as lawyer and client. Credit Level: P. Credit Hrs: 1.00-4.00

H=University Honors course.
Litigation and Skills

24LITG711 Judicial Extern Class
The class component of the Judicial Extern Program covers writing for judges and proper conduct for judges and judicial clerks. Students must enroll concurrently in the Judicial Extern Field Placement. Student may not, however, enroll concurrently in the other extern programs. Credit Level: P. Credit Hrs: 1.00-2.00

24LITG712 Law Review
Varied credit. Participating students engage in the selection and editing of articles for publication in the University of Cincinnati Law Review. Students also write notes and comments for publication in the Review. Open only to student contributors to the Review. Credit Level: P. Credit Hrs: 0.00-7.50

24LITG713 Law Review
Varied credit. See 24LITG712. Credit Level: P. Credit Hrs: 0.00-7.50

24LITG714 Law Review
Varied credit. See 24LITG712. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG715 Legal Drafting
Using research provided, students draft a client letter, complaint, set of interrogatories, contract and will. For each project, 2-3 students will interview the client to obtain the necessary facts. The final work product, due at the end of the semester, is a portfolio containing corrected drafts of each assignment, plus the applicable law, rules, and sample documents used to create all five assignments. Open to 3L's only. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG716 Legal Extern Class
The classroom component of the Legal Extern Program emphasizes practical lawyering skills, law office economics, and ethical issues. Students must enroll concurrently in the Legal Extern Field Placement. Students may not enroll concurrently in the other extern programs. Credit Level: P. Credit Hrs: 1.00

24LITG717 Moot Court
This is a skills course involving advanced argumentation and persuasio via the preparation of a partisan appellate brief. Oral arguments are required. Offered to second-year students in the first semester. Credit Level: P. Credit Hrs: 1.00-1.50

24LITG718 Moot Court Douglass Competition
Participating students represent the College of Law at the Frederick Douglass Moot Court Competition. Credit Level: P. Credit Hrs: 2.00-6.00

24LITG719 Moot Court Editor
Selected third-year students critique, annotate, and discuss oral arguments and written briefs submitted in Moot Court-Fourth Semester. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG720 Moot Court - Fourth Semester
Participating students represent the College of Law in various intercollege moot court competitions. Credit Level: P. Credit Hrs: 2.00-4.50

24LITG721 Moot Court Jessup International
Participating students represent the College of Law at the Jessup International Moot Court Competition. Credit Level: P. Credit Hrs: 2.00

Litigation and Skills

24LITG722 Moot Court - Senior Semester
Participating students represent the College of Law in intercollegiate National Moot Court Competition. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG723 Negotiations
The objective of this course is to develop the skills which lawyers use in the process of negotiating on behalf of their clients. Theory and technique are discussed, and demonstrations of negotiations are presented on video tape. This is a skills course and students are graded on their performance in negotiation simulations. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG726 Remedies
This course covers all forms of ultimate relief in civil actions: damages, restitution, equitable relief. The first portion deals with the damages remedy in tort, contract, real property, and personal property litigation. The second unit analyzes the alternative remedy of restitution, in law and equity. The course concludes with those cases governing specific relief in equity, specific performance in contract and injunctions in tort. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG728 Political Trials
Political Trials A political trial is one where the prosecution or the defense is politically motivated or where the results will have a substantial political impact. The course will provide an understanding of what a political trial is and whey they take place and will explore the connection of law, politics, and the social and historical trends in the country. Among the trials to be considered will be the Scopes Monkey Trial, the Rosenberg Spy Case, and the Chicago 7 Conspiracy Trial. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG729 Street Law Extern Field Placement
Each law student teaches the Street Law curriculum at an area high school during one fifty-minute section three days per week. The curriculum includes introduction to law, family law, consumer law, housing law, torts, and criminal law with topics in contracts and procedure. There is also a classroom component in which the law students learn both the interactive teaching techniques and the substantive law they will be teaching. (Students may not enroll concurrently in the Judicial, Legal, or Street Law Extern Programs.) Credit Level: P. Credit Hrs: 1.00-4.50

24LITG730 PILG Public Interest Legal Grants
Participating students work on projects for organizations that provide legal services to underserved populations. Reports at the end of the summer are made in accordance with requirements established by the supervising faculty member. Open only to students receiving summer work study and/or public interest fellowship funds. Credit Level: P. Credit Hrs: 1.00

24LITG731 Intensive Practical Lawyering Skills
This is an intensive course designed to give students insight into the day-to-day work of practicing lawyers and to provide students the opportunity, through simulation, to learn and practice fundamental lawyering skills. Students will develop professional skills as they interview and counsel the client, draft pleadings, depose the opposing party in preparation for litigation, assist the client's decision-making, and negotiate on behalf of the client. These skills are developed through a framework designed to present the student with a theoretical context for better understanding the importance of practical lawyering skills. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG733 Trial Practice
The development of litigation techniques is stressed through student participation in simulated trial situations. Each aspect of the trial is...
Litigation and Skills

24LITG733
Trial Practice
studied and emphasis is placed upon strategy and fact management. Open to third year students only. Credit Level: P. Credit Hrs: 3.00-4.50

24LITG734
Judicial Extern Field Placement
Judicial Extern Field Placement. The work performed in the judicial extern field placement is essentially the same as that performed by a law clerk to a judge. It usually involves preparing memoranda on cases, reviewing case files, drafting opinions and orders, attending court and conferences. The precise tasks performed, however, depend upon the type of court and style of the judge. Students must enroll concurrently in the Judicial Extern Class. Coreq: 24LITG711. Credit Level: P. Credit Hrs: 2.00

24LITG735
Legal Extern Field Placement
Legal externs work under the supervision of attorneys in local, state and federal public agencies, as well as for legal aid and other non-profit organizations in the private sector. Students must enroll concurrently in the Legal Extern Class. Coreq: 24LITG716. Credit Level: P. Credit Hrs: 2.00

24LITG738
Criminal Defense Investigation & Discovery
This course will explore the essentials of using investigation and discovery to defend an indigent, criminal defendant. The course will consist of several components: Theoretical, practice-oriented (with scholarly discussion interspersed throughout), and then finally a review of the major themes of the class which will require each student to discuss the book which he or she was assigned at the beginning of the semester. Recommended but not required: Criminal Procedure I, Evidence. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG740
Forensic Sciences
This course is designed to familiarize students with contemporary scientific evidence and expert witnesses. Acknowledged experts will present their specialties with an eye toward what the lawyer should know about the scientific area and how to utilize an expert witness. Topics include: pathology, eye-witness identification, fingerprints, tool mark and firearms identification, arson investigation and accident reconstruction. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG741
Mediation Advocacy Workshop
The course will include an introduction to mediation processes, contrasting mediation with litigation and direct negotiation. Classroom exercises and discussion will prepare students for interviewing and counseling the client, representing the client's broader range of interests in mediation and achieving optimal outcomes. Students will be called upon to practice mediation advocacy skills. Credit Level: P. Credit Hrs: 1.00-2.00

24LITG742
Moot Court Rendigs Problem Writer
Selected student will write the Rendigs National Products Liability Moot Court Competition problem. Credit Level: P. Credit Hrs: 3.00

24LITG743
Sixth Circuit Appellate Practice
The class introduces students to the basics of appellate advocacy, with particular emphasis on practice before the US Court of Appeals for the Sixth Circuit. Students will have the opportunity to work for actual clients on cases pending before the Sixth Circuit, including preparing the briefs and possible presentation of oral argument. Attention will also be devoted to studying the judges on the Sixth Circuit, with expected guest lectures from Sixth Circuit judges. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG744
Practice Session
In this class, students and faculty will meet and discuss readings relevant to a particular problem of legal policy. Enrollment will be limited to 15. Students will take turns leading discussion and presenting short analytical papers or a longer term paper. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG745
Mediation
This course will equip students with the skills and strategic analysis necessary to successfully fulfill the role of neutral third-party mediator. Students will undertake a series of mediation role plays, and will receive intensive feedback on technique, skill, and intervention choices. Videotaping will be used extensively, enabling students to calibrate perception and reality of their own mediation style and effectiveness. The class will also view and critique the techniques used by other experienced mediators (on video-tape and through in-class demonstration), permitting us to see a range of mediator presence, styles and choices. Recommended but not required is the Negotiations class. Students who have not taken Negotiations will be asked to complete limited additional reading, and to attend a one hour "Negotiation Highlights" lecture to be scheduled in the fall. Credit Level: P. Credit Hrs: 1.00-4.00

24LITG746
Federal Criminal Practice
In this class, students and faculty (Assistant US Attorneys) will meet and discuss federal criminal practice from investigation through appeal. Students will have the opportunity to analyze and discuss real cases and then see them actually presented in the court room. Students will also have the opportunity to participate in responding to motions, etc. Credit Level: P. Credit Hrs: 2.00-4.50

24LITG747
Law Review Contributing Editor
By permission only. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG748
Rules of Legal Writing
Students enrolled in this course will study and practice ways to improve their writing. Using a set of specific rules for enhancing writing, students will analyze and correct examples of poorly written material and compose and correct original material. With emphasis on plain English this course is designed to improve students’ understanding of the grammar and composition skills necessary for effective legal writing. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG749
Advanced Legal Research:Methods and Applications
This course builds upon the basic research skills and techniques learned in the required "Lawyering I" course. Its problem-solving approach gives students practical research experience that will enhance their understanding of the legal literature and legal research principles. Students will learn to assess and respond strategically to legal research problems using available resources in print and digital formats. Scope is limited to researching United States federal and state law. Credit Level: P. Credit Hrs: 2.00-3.00

24LITG750
Advanced Decision Analysis Workshop
This course expands on the decision analysis for case evaluation and client-counseling in simple cases. It moves to sophisticated applications in complex cases, where attorneys use decision analysis to think through litigation management and strategy, and to communicate with opposing counsel and (particularly corporate) clients. In-house counsel increasingly require the use of decision analysis for settlement and litigation decisions. Students completing this course could claim a resonable degree of proficiency in decision analysis for legal practice. Credit Level: P. Credit Hrs: 1.00-3.00
Litigation and Skills

24LITG751 Indigent Defense Clinic
Enrollment in class and field placement is required. Students will be interviewed for selection for this two-semester clinic. 3L’s who qualify for Student Intern License only. Please submit resume and a letter of interest. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG752 Indigent Defense Clinic FP
Enrollment in class and field placement is required. See information on Indigent Defense Clinic. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG753 Street Law
Complete separate Street Law Extern Preference form and include transcript and resume. Students may not enroll concurrently in Extern Programs. You must also register for the Field Placement portion of this class. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG754 Trial Practice: Criminal Defense
This class will concentrate on developing trial skills with a focus on representing the criminally accused. Beginning with developing the Theory of Defense, this class will expose students to all aspects of criminal defense trial work, including pre-trial motions, making and responding to objections, and each component of a criminal trial. The goal of the class is to provide an introduction to the zealous and effective representation of the criminal defendant. Credit Level: P. Credit Hrs: 3.00-4.00

24LITG756 Trial Practice: Mock Trial Competition
Class participation is limited to students who have instructor permission. Student try-outs (via resume, interview) are required. Credit Level: P. Credit Hrs: 2.00-4.00

24LITG757 6th Circuit Field Experience
Field Experience portion; concurrent enrollment in class required. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG758 Environmental Law Practice I
Advanced study in Environmental Law I. Enrollment in Environmental Law I required. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG759 Intro to Intellectual Property Practice 1
Enrollment in Introduction to Intellectual Property required. Credit Level: P. Credit Hrs: 1.00-3.00

24LITG760 Trial Practice Competition
Students will conduct extensive preparation for and will enter a regional trial competition in the Spring, under the supervision of attorney-coaches. Students who “win” at the regional level will participate in the national trial competition for no additional credit. Credit Level: P. Credit Hrs: 1.00-5.00

24LITG761 International Business Transactions Practice 1
Must enroll concurrently in International Business Transactions. Credit Level: P. Credit Hrs: 1.00-5.00

24LITG875 Advanced Remedies: Remedy Discrimination
Advanced Remedies: Remedy Discrimination This seminar provides an opportunity to explore and critique the judiciary's attempts to redress race discrimination. Because the course is a remedies course, it will take as a given legal liability. Students will be expected both to understand and question current judicial approaches to redressing race discrimination. Credit Level: P. Credit Hrs: 2.00-3.00

Litigation and Skills

24LITG876 Research Seminar
Students in this advanced research seminar will explore in depth topics as determined by the faculty member. Each student will write and present an independent research paper on a topic approved in advance. Credit Level: P. Credit Hrs: 2.00-4.50

24LITG901 Individual Research Project
Under the direct supervision of a member of the faculty, upper level students engage in original research and prepare for credit a substantial work product. The research project is selected jointly by the student and the faculty member. Customarily the final product will be a research paper, and, in that case, the paper must be 10-15 pages long for one credit, 20-30 pages long for two credits, and 35-50 pages long for three credits. Credit Level: P. Credit Hrs: 1.00

24LITG902 Individual Research Project
Under the direct supervision of a member of the faculty, upper level students engage in original research and prepare for credit a substantial work product. The research project is selected jointly by the student and the faculty member. Customarily the final product will be a research paper, and, in that case, the paper must be 10-15 pages long for one credit, 20-30 pages long for two credits, and 35-50 pages long for three credits. Credit Level: P. Credit Hrs: 2.00

24LITG903 Individual Research Project
Under the direct supervision of a member of the faculty, upper level students engage in original research and prepare for credit a substantial work product. The research project is selected jointly by the student and the faculty member. Customarily the final product will be a research paper, and, in that case, the paper must be 10-15 pages long for one credit, 20-30 pages long for two credits, and 35-50 pages long for three credits. Credit Level: P. Credit Hrs: 3.00

Property

24PROP501 Property
This course surveys the varieties of property interests and relations available in Anglo-American law, with an emphasis on tracing their development and evolution in modern American society. Discussion usually covers adverse possession, the traditional estates in land, future interests, landlord-tenant law, concurrent ownership, land use regulation and eminent domain, nuisance, and easements and other servitudes. Credit Level: P. Credit Hrs: 4.00-6.00

24PROP701 Advanced Problems in Environmental Law
The course will focus on problem solving and application of environmental statutes and regulations to situations practitioners face daily. Risk assessments and environmental auditing will be examined as tools to aid the practicing lawyer. Negotiation strategies for real estate transactions and remedial programs will also be explored. This will be a hands-on, "you make the tough call" course. Prereq: 24PROP705. Credit Level: P. Credit Hrs: 2.00-4.50

24PROP702 Computer Law
This course tackles the legal issues surrounding computer technology, including the protectability of computer software; the misappropriation of computer technology; software licenses, support, distribution, and development agreements; ownership of online "content;" privacy in a computer age; and liability for tortious acts and computer crimes. Credit Level: P. Credit Hrs: 2.00-4.50

24PROP703 Copyright Law
This course examines copyright law in detail, with particular focus on the Copyright Law of 1976, its history, and its ability to respond to recent developments in technology. Copyright Law offers protection for
This seminar will explore copyright, trademark, and other intellectual property disciplines fit with each other and with related forms of state law protection. In particular, the course will cover copyright law, moral rights, trademark law (including closely related trade dress and product simulation matters), unfair competition, idea protection, false advertising, trade secret law and rights of publicity. Coverage of patent law is brief. The course will conclude with a discussion of the simultaneous application of differing but overlapping forms of intellectual protection to several specific types of creative product.
Credit Level: P. Credit Hrs: 3.00

24PROP714
Patent Office Practice and Procedure
This course provides students with “hands-on” experience in conducting patent practice before the United States Patent and Trademark Office. Topics include patent searches; patentability opinions; patent drafting; filing; responding to correspondence from the Patent Examiner; and conducting litigation before the Board of Patent Appeals and Interferences and the Federal Circuit Court of Appeals. Credit Level: P. Credit Hrs: 3.00-4.50

24PROP715
Real Estate Transactions
Covers the legal problems involved in the transfer of both commercial and residential real property: the real estate broker, the contract of sale and an extensive consideration of the various methods of title assurance. The course concludes with an introduction to mortgages. Credit Level: P. Credit Hrs: 2.00-3.00

24PROP716
Trademark and Unfair Competition
This course examines the law governing trademarks and other means of identifying products and services in the minds of consumers. Instruction primarily will focus on the federal statute governing trademarks and unfair competition, the Lanham Trademark Act of 1946, but students will learn about state laws and state law doctrines in the field as well. Topics include the protectability of marks, including words, symbols, and “trade dress;” federal registration of marks; causes of action for infringement, dilution, and “cybersquatting;” and defenses, including parodies protected by the First Amendment. Credit Level: P. Credit Hrs: 2.00-3.00

24PROP717
Wills, Trusts and Future Interests
This course covers the variety of ways in which people can arrange for the passage of their property during life or at their death. We study common law and statutory methods of dealing with property left by a decedent who did or did not leave a will; the procedures and problems of creating, construing, contesting, or revoking wills and trusts; the concerns for providing for surviving spouses and other family members; the kinds of trusts available; fiduciary duties in the administration of estates and trusts; some of the methods for avoiding the probate of estates; and the details for the law of future interests (including the Rule against Perpetuities). Related tax questions may be discussed, but they are not emphasized. Credit Level: P. Credit Hrs: 4.00-6.00

24PROP718
Advertising Law Seminar
This seminar will explore copyright, trademark, and other intellectual property issues surrounding the creative world of advertising. Topics will include logos; products and their packaging; the use of images in
Property

24PRSP718
Advertising Law Seminar
advertising; celebrity sponsorship; false advertising, comparative advertising and the "pain reliever wars;" contests and lotteries; metatags, banner advertisements, and other creatures of the Internet; and government regulation of "unfair" trade practices. To fulfill the seminar requirement, students will be asked to research and write an opinion letter to a mock client analyzing and evaluating its mock advertising portfolio--much like attorneys are asked to do in practice. A limited number of students may be given permission to substitute a research paper relating to the topics discussed, but only upon consulting with and receiving permission from the instructor. Prereq.: Introduction to Intellectual Property or Trademark and Unfair Competition. Credit Level: P. Credit Hrs: 2.00-3.00

24PRSP720
Patent Litigation & Strategy
This is a perspective course focusing on the unique procedural, substantive and strategic aspects of patent litigation. Specific topics include claim interpretation, the interrelationship between written descriptions and claims, proof of infringement, special issues in attorney/client privilege and waiver, discovery of confidential information, validity issues, patent remedies and defenses. Students will have the opportunity to prepare written pleadings and to orally argue claim interpretations and infringement positions in simulated hearings and/or motions. Performance on these projects will form the basis for student assessment. The course will benefit students seeking to acquire broad-based litigation skills as well as those with specific interest in patent law. Credit Level: P. Credit Hrs: 2.00-4.00

24PRSP721
Law and the Internet
The internet is a new medium but does it require new law? This course will explore the intersection of the new internet technology with traditional legal principles of due process, jurisdiction and choice of law; trademarks, copyrights and other intellectual property; content regulation; service provider liability; privacy and First Amendment; torts and crimes, contracting; governance and other issues. Students not only will examine the extent to which legal issues presented by the internet fit within a conventional legal framework but they will be encouraged to re-examine the relevance of traditional legal approaches to 21st century life and legal practice. Credit Level: P. Credit Hrs: 2.00-4.00

24PRSP723
Licensing Intellectual Property
Transactions to convey intellectual property (IP), which includes patents, trademarks, trade secrets, and copyrights, are a crucial part of business and technology law. Details of simple licenses will be taught in general as well as with reference to issues unique to the specific type of IP involved. Aspects of more complex licenses, due diligence to assess licensing opportunities, IP audits, and resolution of licensing disputes will also be described. Introduction to Intellectual Property required; Business Associations I recommended. Credit Level: P. Credit Hrs: 3.00-4.00

24PRSP880
Trademark Practice and Procedure
This course provides students with "hands on" experience in conducting trademark practice before the United States Patent and Trademark Office. Topics include trademark searches; trademark "clearance" opinions; filing; responding to correspondence from the Trademark Examining Attorney; and conducting litigation before the Trademark Trial and Appeal Board and the Federal Circuit Court of Appeals. Credit Level: P. Credit Hrs: 2.00-4.00

Perspective

24PRSP501
Introduction to Law
Prepares students with common grounding in basic legal concepts, historical context, the language of law and legal reasoning. Introduces

H=University Honors course.
Perspective

24PRSP711 Law and Popular Culture
research about the law. Film can tell us much about the law. Traditional disciplines do not always provide the director encounter with concrete experiences of daily living that literature and film can achieve. Credit Level: P. Credit Hrs: 2.00-3.00

24PRSP713 Law, Literature and Feminism
This seminar explores differences and similarities between the language of the law and the languages of literature, between legal thinking and literary thinking, between the ways in which literary works construct worlds and the ways in which the law constructs worlds. Credit Level: P. Credit Hrs: 2.00-3.00

24PRSP714 Interaction of Medicine and Law
The aim of the Interaction of Medicine and the Law course is to give law students a practical introduction to the basic medical terminology, the role that medicine plays in a variety of legal circumstances, and confront problems that arise when the medical and legal professions come together. The focus of this course will be more on the application of law as it appears in every day practice than on the textual intricacies which found the legal system itself. Credit Level: P. Credit Hrs: 2.00-3.00

24PRSP715 Second Year Lawyering: Ethics and Skills of Practice
In this course, students will consider the lawyer-client relationship in the context of realistic scenarios, evaluating the complex choices an ethical lawyer must make and demonstrating the basic skills a lawyer must master to establish an effective lawyer-client relationship. Following an examination of the ABA Model Rules and/or the Code of Professional Responsibility, students will consider the ethical components of the lawyer-client relationship, with an emphasis on competency, confidentiality, and conflicts of interest. Students will also gain skills in client interviewing, counseling, decision-making and will prepare several documents, including an engagement letter and fee agreement, a letter declining representation, and a marketing piece. Credit Level: P. Credit Hrs: 2.00-4.00

24PRSP716 Second Year Lawyering: Second Semester
This is a continuation of Fall Semester Credit Level: P. Credit Hrs: 2.00

Specialty

24SPCL705 Health Care Law
physician-patient relationship, professional liability of health care providers, and tort reform for medical injuries. Credit Level: P. Credit Hrs: 2.00-4.50

24SPCL706 Law and Psychiatry
Considers the structure of the mental health profession by addressing duties owed by practitioners and researchers to patients or clients, such as the obligation to preserve the confidences and privacy of the client. The seminar will also consider issues related to mentally ill or incapacitated individuals and the institutional systems and processes designed to deal with such persons. Credit Level: P. Credit Hrs: 3.00-4.50

24SPCL707 Research Seminar
Students in this advanced research seminar will explore in depth topics as determined by the faculty member. Each student will write and present an independent research paper on a topic approved in advance. Credit Level: P. Credit Hrs: 2.00-4.50

24SPCL708 Mental Health Law I: Civil Commitment
In this class, formerly titled "Public Sector Mental Health Law," we will focus on the legal aspects of publicly-financed mental health care and the traditional and current governmental responses to mental disability. These issues stem largely from the movement known as deinstitutionalization, or the widespread release of persons with mental disabilities into community settings. The seminar begins with an historical overview of deinstitutionalization and the role of the law in that movement. After briefly examining the current public sector mental health system, using Ohio's system as an example, we will consider a variety of civil commitment laws and the legal issues related to those laws. We will also study the impact of American with Disabilities Act (ADA) on persons with mental disabilities, access to community-based mental health services, patient rights, and criminal law diversion alternatives. Credit Level: P. Credit Hrs: 2.00-3.00

24SPCL709 Mental Health Law Extern Field Placement
Mental Health Law Extern Field Placement Students enrolled in the Mental Health Law Externship Program work with various courts, government and community agencies, and advocacy groups involved with some aspect of mental health law in Ohio. Simultaneous or subsequent enrollment in the Mental Health Law Seminar is required to receive credit for the externship. Students may not enroll concurrently in the Judicial, Legal, Mental Health Law, or Street Law Extern Programs. Credit Level: P. Credit Hrs: 2.00

24SPCL710 Mental Health Law II: Medical Malpractice
This course will focus on the private sector health care issues that arise frequently in mental disability law. Issues to be covered include: medical and psychiatric malpractice and professional liability, licensing and regulation of health professions, confidentiality, duties to warn and other duties to third parties, guardianship and conservatorship, third-party payer issues, including the growing influence of HMOs and managed care regimes, insurance industry regulation, including parity laws, and health care advanced directives. Although emphasis will be placed on the applicability of these issues in the mental disability law arena, the course will also be appropriate for students interested in health law generally. Credit Level: P. Credit Hrs: 2.00-4.00

24SPCL711 Introduction to Sports Law
This course is designed to introduce students to the substantive and practical aspects of sports law. Students will be exposed to a review of current and selected past case law, a review and interpretation of federal and state legislation, as well as an interpretation of NCAA Bylaws and Constitutional provisions. Credit Level: P. Credit Hrs: 2.00-
Animal Law

This course addresses legal and philosophical materials relevant to understanding the legal status of animals. The focus is on the status of animals as property, the doctrine of standing, and the nature of legal rights as applied to nonhuman animals. The course incorporates developing tort law concepts, criminal law, and constitutional law, and considers the evolution of the law’s understanding and treatment of animals by examining federal and state statutes and policies.

Credit Level: P.
Credit Hrs: 3.00
24TAX704  
Corporate Tax II  
topics. Credit Level: P. Credit Hrs: 3.00-4.50

24TAX705  
Federal Income Taxation  
This course is structured around the two dominant themes of the taxation of individuals under the Internal Revenue Code: what is income, and what is deductible; and when must the taxpayer recognize income, and when can the taxpayer deduct a particular expense. Also examines miscellaneous topics such as capital gains and losses, identifying the proper taxpayer, etc. Credit Level: P. Credit Hrs: 3.00-6.00

24TAX706  
Partnership Tax  
After examining classification of entities as partnerships (as opposed to corporations or other forms of business organization), this course studies tax issues arising during the life-cycle of a partnership -- formation, operation, sales and exchanges of partnership interests, operating distributions, and liquidating distributions. Credit Level: P. Credit Hrs: 3.00-4.50

24TAX707  
Tax Policy  
This course critically examines our method of taxing income: criteria for a sound tax policy; tax system versus tax on income; use or acceptance of certain deductions, credits and exclusions. Students examine and evaluate proposals for tax reform. Credit Level: P. Credit Hrs: 2.00-3.00

24TAX708  
Tax Procedure  
This course prepares individuals for resolving federal tax problems administratively within the I.R.S. as well as within the court system. It examines I.R.S. organization; rulings, private and public, technical advise memorandums and determination letters; audits; appellate protests; criminal and civil litigation, with special emphasis on the US Tax Court. Credit Level: P. Credit Hrs: 2.00-3.00

24TAX709  
Contemporary Issues in Business Regulation  
This seminar examines contemporary issues that are prevalent in the regulation of business organizations and activities. The class will engage in detailed discussions on topics listed in the syllabus. With the exception of the first few class meetings, students will volunteer to act as the lead discussant on his/her chosen topic. The student is required to prepare an outline prior to the class. In addition, two students will be assigned to comment on the discussion and outline of the lead student. The other students are also encouraged to comment and make suggestions. Prerequisite: Corporations I and/or an undergraduate degree in business, economics, or finance. Substantial working experience in the business world is a good substitute for the above course/degree requirements, but enrollment must be approved in advance. Credit Level: P. Credit Hrs: 2.00-4.00

24TAX877  
Advanced Federal Income Taxation  
The course will concentrate on income taxation of trusts and estates, Subchapter J. Emphasis will be on design of trusts to save taxes. If time permits, other income tax planning ideas will be covered, such as income tax planning with S corporations and their use in estate freezes. Credit Level: P. Credit Hrs: 2.00

H=University Honors course.  
COLLEGE OF MEDICINE
COURSE DESCRIPTIONS
Biostatistics and Epidemiology

26BE761  Special Topics – Biostatistics in Research
Seminars or tutorial sessions dealing with special topics in biostatistics related to research and application basic to field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26BE762  Applied Longitudinal Data Analysis
The methodology of general linear mixed models (GLMM) using SAS is presented in detail. Example data sets are analyzed using PROC MIXED. Course content includes applied aspects of model building using RANDOM & REPEATED statements, comparisons of covariance structures for analyzing. Credit Level: G. Credit Hrs: 3.00

26BE763  Special Topics - Pediatric Environmental Health
See 26BE781. Credit Level: G. Credit Hrs: 1.00-15.00

26BE764  Statistical Genetics I: Principles and Methods
First of 2 part course. Students should be able to learn the basic principles of statistical inference in relation to the biological features of genetic data and relevant distributional properties of such data. Part 2 26BE765 Credit Level: G. Credit Hrs: 3.00

26BE765  Statistical Genetics II: Segregation and Linkage Analyses
Second of 2 part course. Students should be able to learn the principles of conducting quantitative analyses of data for determining the mode of inheritance and localization of genes underlying a familial trait. Part 1 26BE764 Credit Level: G. Credit Hrs: 3.00

26BE766  Principles of Clinical Trials
Scientific, regulatory, managerial, and dissemination aspects of clinical trials, including: types and quality of trial design, pros and cons of experimental vs management trials, randomization, rationale and implementation of masking strategies, sample size estimation and subject/clinical consent. Prereq: 26BE787. Credit Level: G. Credit Hrs: 3.00

26BE767  Scientific Integrity
Lecture series addressing ethical issues in research including of human experimentation, animal welfare, conflict of interest, and responsible authorship and publication practices. Course equivalent is 26 GNMD 730. Credit Level: G. Credit Hrs: 1.00

26BE768  Decision Analysis and Cost-effectiveness Analysis
Introduction to methods and applications of decision analysis, cost-effectiveness, and cost-benefit analysis in medical decision making. Bayes Theorem, diagnostic test, design assessment and economic analysis of health care programs. Credit Level: G. Credit Hrs: 3.00

26BE769  Special Topics - Epidemiology - Patient Specimen Methods
See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE770  Survey and Qualitative Methods for Health Research
Students learn concepts, methods, and practical procedures for locating, evaluating, and implementing health survey instruments to answer research questions. Other items of study are: questionnaire design and construction, intro to scale construction, methods for testing psychometric properties of instruments, and scaling methodologies. Credit Level: G. Credit Hrs: 2.00

Biostatistics and Epidemiology

26BE771  Introduction to Genome Science
Prereq: Molecular Biology. Will allow students exposed to general research areas in genome science, a study of the structure, content, and evolution of genomes. Core concepts and methodologies will be presented. Credit Level: G. Credit Hrs: 3.00

26BE776  Introduction to Epidemiology
Methodology for studies of disease in human populations. Examples include chronic disease, infectious disease, occupational and environmental epidemiology. Sources, collection, handling, interpretation of health data. Credit Level: G. Credit Hrs: 3.00

26BE777  Non Linear Statistical Analysis
Methods will be discussed for performing analysis of variance on data which include missing values. The technique will include quick approximate methods, exact methods and reliable computer programs. Credit Level: G. Credit Hrs: 3.00

26BE778  Introduction to SAS Programming
This course includes the use of SAS and other statistical packages as well as instruction in data management for epidemiologists and biostatisticians. Credit Level: G. Credit Hrs: 2.00

26BE779  Human Genome Diversity
Prereq: Basic Human/Pop. Genetics. Students should be able to understand the concept of interindividual variation at the genome level & how this relates to studies on evolution of modern human, global migration of human populations, and to natural history of disease causing mutations. Credit Level: G. Credit Hrs: 3.00

26BE784  Seminar of the Epidemiology of Infectious Diseases
Epidemiologic, serologic and public health aspects of modern infectious diseases, their transmission and methods of control. Credit Level: G. Credit Hrs: 2.00

26BE787  Introduction to Biostatistics
Descriptive statistics, probability distributions, estimation, types of error, significance level, test of hypotheses, sample size, correlation, linear regression, non-parametric methods. Emphasizes practical-applied aspects. Credit Level: G. Credit Hrs: 4.00

26BE788  Regression Analysis
Linear regression, least squares, elementary matrix operation, multiple regression models, correlation analysis, and introductory analysis of variance. Prereq: 26BE787. Credit Level: G. Credit Hrs: 4.00

26BE789  Experimental Design
Study of the applications of randomized block, Latin square, and factorial designs for scientific experimentation including confounding, fractional factorial. Fixed, random, mixed designs. Prereq: 26BE787. Credit Level: G. Credit Hrs: 4.00

26BE790  Computational Functional Genomics
Introduce students to mathematical & statistical models & concepts underlying current approaches to computational analysis of functional genomics & proteomics data. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Biostatistics and Epidemiology

26BE793
Statistics of Bioassay
Study of the statistical methods of parallel line, slope ratio, probit, logit and other bioassay techniques. Quantitative and quantal bioassays. Credit Level: G. Credit Hrs: 3.00

26BE794
Survey Sampling
Study of the applications of simple random, stratified, cluster, systematic, multistage, ratio, regression sampling techniques; minimization of costs. Credit Level: G. Credit Hrs: 3.00

26BE795
Nonparametric Statistics
Study of estimation and hypothesis testing with minimal assumptions. Includes the study of rank tests and other distribution-free statistics. Credit Level: G. Credit Hrs: 3.00

26BE796
Introduction to Statistics
Descriptive statistics, probability, estimation, statistical errors, parametric and nonparametric hypothesis testing, statistical fallacies. Emphasizes applied-practical aspects. Less material covered than in 787. Credit Level: G. Credit Hrs: 4.00

26BE797
Categorical Data Analysis & Logistic Regression Analysis
Statistical methods for analyzing discrete categorical and qualitative data are presented including Chi-square, Mantel Haenszel, McNemar's test, PMR, SMR. Credit Level: G. Credit Hrs: 3.00

26BE798
Survival Analysis
Nonparametric and parametric methods of estimating and comparing survival functions for mortality studies including Kaplan-Meir, Weibull, exponential model, Cox regression. Credit Level: G. Credit Hrs: 3.00

26BE804
Biostatistical and Epidemiological Consultation
Biostatistical and Epidemiological Consultation preceptorship (offers one-on-one consultation to other University personnel). Credit Level: G. Credit Hrs: 1.00-3.00

26BE805
Biostatistical and Epidemiological Consultation
See 26BE804. Credit Level: G. Credit Hrs: 1.00-3.00

26BE806
Biostatistical and Epidemiological Consultation
See 26BE804. Credit Level: G. Credit Hrs: 1.00-3.00

26BE810
Laboratory Technologies in Genome Research
Advanced course for the students who are interested in the common & novel laboratory technologies that are currently used in genomics research. Principle of the technologies & their major applications will be presented along with examples of research projects where those technologies were employed. Credit Level: G. Credit Hrs: 3.00

26BE828
Epidemiology and Biostatistics Division Seminar
Seminars presented by the faculty and students presenting subjects of interest in epidemiology and biostatistics. Current research by speaker as well as review of the literature. Credit Level: G. Credit Hrs: 1.00

26BE829
Epidemiology and Biostatistics Division Seminar
See 26BE828. Credit Level: G. Credit Hrs: 1.00

Biostatistics and Epidemiology

26BE830
Epidemiology and Biostatistics Division Seminar
See 26BE828. Credit Level: G. Credit Hrs: 1.00

26BE842
Neuroepidemiology
Neuroepidemiology is the investigation of the distribution and dynamics of neurologic disease in free ranging human populations. This course explores the scope and methods of neuroepidemiology. Prereq: 26BE776. Credit Level: G. Credit Hrs: 3.00

26BE861
Teaching Practicum in Biostatistics/Epidemiology Environmental Medicine
Teaching practicum in epidemiology and/or biostatistics. Practice of assisting and teaching in environmental courses by special arrangement with faculty member who will provide supervision. www.eh.uc.edu Credit Level: G. Credit Hrs: 1.00-3.00

26BE862
Introduction to Medical Informatics
Introduction to the field of health informatics and its relation to patient care and clinical research. Topics include: field overview, clinical informatics, data standards, security and confidentiality, regional health information exchange, standards/terminologies, databases, internet/intranet and healthcare. Credit Level: G. Credit Hrs: 3.00

26BE863
Special Topics Biostatistics - Proteomics and Wavelets
See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE864
Advanced Statistical Methods in Biomedical Research
New methods of analyzing complex data constantly evolve and the purpose of this course is to expose these methods to graduate students. The methods are culled mostly from research journals and as such no textbook is prescribed for this course. Prereq: 26BE787. Credit Level: G. Credit Hrs: 3.00

26BE865
Special Topics Biostatistics - Spatial Data Analysis on R
See 26BE761. _Boosting and bagging are two of the most recent techniques available in the literature to enhance quality of predicion in data analysis. Credit Level: G. Credit Hrs: 1.00-15.00

26BE866
Molecular Epidemiology Laboratory
Teaches students about molecular techniques used to assess DNA, RNA, & protein for markers of Expos or markers of disease state and susceptibility. Will rotate through a minimum of 5 labs and will learn basic research projects & basic techniques in host labs, critical to ongoing evaluations. Coreq: 26BE973. Credit Level: G. Credit Hrs: 1.00

26BE867
Health Services Research
Research on effects of the organization, delivery, and financing of healthcare. Principles of health services research, including patterns of resource utilization, small area variation, medical errors, and measurement and improvement of quality of care will be emphasized. Credit Level: G. Credit Hrs: 3.00

26BE868
Genetics of Complex Diseases
Introduction to complex disease and traits. Epidemiology and genetic basis of complex diseases. Credit Level: G. Credit Hrs: 3.00

26BE869
Study Design and Analysis
Seminars or tutorial sessions dealing with special topics in epidemiology related to research and application basic to field of environmental health. Prereq: 26BE776, 26BE787. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Biostatistics and Epidemiology

26BE880
Global Environmental Epidemiology
See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE871
Logistic Regression and Log Linear Models
Analysis of discrete data using logistic and loglinear models including interpretation of coefficients and model-building strategies. Familiarity with SAS software through examples will be emphasized. Credit Level: G. Credit Hrs: 3.00

26BE874
Classic Topics in Epidemiology
Study of historical works in epidemiology including Snow, Panum, Goldberger, and comparison with recent epidemiologic research. Credit Level: G. Credit Hrs: 2.00

26BE879
Epidemiology of Occupations
Methodology and results of epidemiological studies of occupations including morbidity and mortality. Real examples and practical factors are considered. Prereq: 26BE776. Credit Level: G. Credit Hrs: 3.00

26BE884
Use of Statistical Procedures in Computer Package Programs
The computer package programs SAS and BMDP contain an extensive array of statistical procedures, and a selection of the more useful and popular ones will be examined. The underlying theory, program statements, output, and application to real biomedical data sets will be discussed. Credit Level: G. Credit Hrs: 3.00

26BE887
Statistical Methods in Epidemiology
Statistical methods for occupational and environmental health studies are reviewed, including case-control, cohort logistic regression, log-linear, matching. Credit Level: G. Credit Hrs: 3.00

26BE892
Pharmacopedia
Discussions with review of epidemiologic studies around a theme, e.g., environmental- or reproductive- or AIDS-related epidemiology for students who have completed the introductory course. Prereq: 26BE776. Credit Level: G. Credit Hrs: 2.00

26BE893
Advanced Epidemiology - Appraisal of Epidemiological Studies and Clinical Trials
Sophisticated epidemiologic seminar review along a theme, e.g., the epidemiologic basis of standard; setting for students who have completed at least two other courses in epidemiology. Credit Level: G. Credit Hrs: 2.00-4.00

26BE894
Structural Equation Modeling
Path analysis, measurement error models; confirmatory factor analysis; general structural equation model with latent variables; alternative estimators and models for categorical data. Credit Level: G. Credit Hrs: 3.00

26BE897
Epidemiology of Cardiovascular Diseases
An introduction to epidemiology of the major cardiovascular diseases with a focus on risk factors. Prereq: 26BE776. Credit Level: G. Credit Hrs: 3.00

26BE898
Epidemiology of Cancer
A general overview of known associations of environmental and occupational factors with various types of cancer; includes discussion of types of studies that give rise to associations and causation. Each student selects either a particular etiology or cancer site for a report to the class. Credit Level: G. Credit Hrs: 3.00

Biostatistics and Epidemiology

26BE861
Meta Analysis
History of Meta-Analysis, searching literature, computation of effect sizes, pooling sizes, summary of data meta-regression; individual patient data (IPD) meta-analysis. Credit Level: G. Credit Hrs: 3.00

26BE962
Special Topics Biostatistics - Graphics on R
See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE963
Special Topics Biostatistics - Genome Wide Association Studies
See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE964
Special Topics Biostatistics
See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE965
Special Topics Biostatistics
See 26BE761. Credit Level: G. Credit Hrs: 1.00-15.00

26BE966
Clinical Research Scholars Seminar
Topics such as grant writing, research presentation, job negotiation, critique research and interaction among trainees from all tracks. Credit Level: G. Credit Hrs: 1.00

26BE967
Special Topics - Epidemiology - Disease Specific Translational Research
See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE968
Dilemmas in Epidemiology
See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE969
Special Topics in Molecular Epidemiology
See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE970
Special Topics Epidemiology-Epidemiology of Cancer
See 26BE766. Credit Level: G. Credit Hrs: 1.00-15.00

26BE973
Molecular Epidemiology - The Use of Biomarkers in Epidemiologic Research
The course covers how biomarkers can be used in epidemiologic research; scientific, technical and ethical issues in the use of biomarkers and a range of applications for the use of biomarkers in the study of various diseases. Prereq: 26BE776. Credit Level: G. Credit Hrs: 3.00

26BE975
Design and Management of Field Studies in Epidemiology
Opportunity to acquire knowledge and skills both in formulating a research problem, writing a research proposal or grant application, designing questionnaires, the art of presenting study findings, and evaluating research. Prereq: 26BE776. Credit Level: G. Credit Hrs: 4.00

26BE980
Quality Control Statistics
Introduces the statistical methodology used in process quality control. Emphasis will be on data analysis techniques, graphical presentations, and interpretation. Credit Level: G. Credit Hrs: 3.00

26BE981
Statistics in the Pharmaceutical Industry
Discusses controlled clinical trials in general and pharmaceutical industry research in particular. Also covers statistical methods used in the industry. Credit Level: G. Credit Hrs: 2.00

H=University Honors course.
Examples of the current biomedical literature. Students also receive analysis and interpretation skills through discussion of specific proposals. Prerequisite: Instructor. Credit Level: G. Credit Hrs: 2.00

Human Gross Anatomy
See 26CB101 for description. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00-10.00

Biology of Cancer
Currently, a one quarter course that covers a broad spectrum of issues relating to the genesis and progression of cancer. Some topics that are covered include cell kinetics and cell cycle regulation in normal and cancerous cells, oncogenes and growth factors, tumor suppressors, the genetics of cancer, mutation and environmental exposure, signal transduction and the role of the immune system in cancer. Credit Level: G. Credit Hrs: 4.00

Research
Laboratory research in cellular or molecular biology, leading toward a doctoral dissertation. Credit Level: G. Credit Hrs: 1.00-20.00

Research
See 26CB881. Credit Level: G. Credit Hrs: 1.00-20.00

Research
See 26CB881. Credit Level: G. Credit Hrs: 1.00-20.00

Research
See 26CB881. Credit Level: G. Credit Hrs: 1.00-15.00

Seminar
Formal presentations of current research in cell and molecular biology will be given by speakers from both UC and other institutions. Credit Level: G. Credit Hrs: 1.00

Seminar
See 26CB915 for course description. Credit Level: G. Credit Hrs: 1.00

Seminar
See 26CB915 for course description. Credit Level: G. Credit Hrs: 1.00

Seminar Redux
This is a discussion course in which the research topic and format of presentation of the Cell Biology seminar for each week are analyzed in detail. Credit Level: G. Credit Hrs: 1.00

Scientific Writing
Principles and practice of scientific writing, including manuscripts and proposals. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

Data Critique and Presentation I
The main goals of this course are to teach students critical data analysis and interpretation skills through discussion of specific examples of the current biomedical literature. Students also receive credit for discovering marketed therapeutics. Student evaluations of several recent launches in the cancer field (primarily Gleevec, Iressa, Herceptin). The goal of this course is to introduce students to successful grant writing strategies. Students receive instruction in grantsmanship and participate in grant writing exercises. Completed grants are critically reviewed by instructors and students. Prerequisite: 26CB923. Credit Level: G. Credit Hrs: 2.00

Introduction to Grant Writing and Review
The main goals of this course are to teach students critical data analysis and interpretation skills through discussion of specific examples of the current biomedical literature. Students also receive instruction in techniques for effective presentation of data to colleagues. Prerequisite: 26CB923, 26CB924. Credit Level: G. Credit Hrs: 2.00

Data Critique and Presentation III
The main goals of this course are to teach students critical data analysis and interpretation skills through discussion of specific examples of the current biomedical literature. Students also receive instruction in techniques for effective presentation of data to colleagues. Prerequisite: 26CB923, 26CB924. Credit Level: G. Credit Hrs: 2.00

Special Topics in Cell Biology
This course offers intensive instruction in specialized areas of cell biology including such topics as cell motility, cell-cell interactions, molecular endocrinology and intracellular trafficking. The content and format varies. Credit Level: G. Credit Hrs: 2.00-4.00

Action of Cancer Therapeutics
This course is designed for students interested in the mechanisms through which cancer therapeutics act and their implementation in clinical settings. The course is taught by basic researchers and participating clinical faculty. The course will provide an overview of a variety of therapeutic approaches utilized in the treatment of cancer, the molecular basis through which these therapeutics function, clinical relapse and new therapeutics under development. Credit Level: G. Credit Hrs: 2.00

Advanced Cell Biology: Cell Growth and Differentiation
This course is targeted to advanced students who want to attempt to define a stem cell and study the impact of extra-cellular signals on cell proliferation and differentiation. The level of this course is beyond that presented in Molecular Biology of the Cell II. The course will be held twice a week in a case study format and will be taught and moderated by faculty of the Cell and Molecular Biology Graduate Program. Course grades will be determined by the quality of class participation each week, the creativity and participation of each student as leader of case study presentations (each student is required to lead their case study group twice during the quarter), and a paper submitted by each student on one of the course topics. This course will be offered in alternating years with Advanced Cell Biology: Cell Communication Inside and Out. One of the Advanced Cell Biology courses is required for one quarter for students in the Cell and Molecular Biology Graduate Program. Credit Level: G. Credit Hrs: 2.00

From Drug Target to Therapy
This course provides an overview of the complex process of discovering a new therapeutic agent. Students will be given a basic understanding of the tools, techniques and approaches as exemplified in the discovery of several recent launches in the cancer field (primarily Gleevec, Iressa, Herceptin). We anticipate scheduling a few seminars from persons credited with discovering marketed therapeutics. Student evaluations...

H=University Honors course.
Cell and Molecular Biology

26CB955
From Drug Target to Therapy
will be based on a short paper, active participation and attendance. Credit Level: G. Credit Hrs: 3.00

Developmental Biology

26DB900D
Developmental Biology Dissertation Research
Students who have been approved for PhD candidacy are eligible for this special fee dissertation course. Full-time (12 credits) dissertation research effort is required, and a student registered for this course cannot register for any other courses in that quarter. Research in the lab of faculty member on a defined problem will be performed to teach lab techniques and approaches to research. Literature readings and discussion of research with staff and dissertation writing also are included. Offered each quarter, may be taken repeatedly. Credit Level: G. Credit Hrs: 12.00

26DB901
Developmental Biology Research Seminar
Contemporary research papers presented by members of the staff and invited speakers. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

26DB902
Developmental Biology Research Seminar
See 26DB901. Credit Level: G. Credit Hrs: 1.00

26DB903
Developmental Biology Research Seminar
See 26DB901. Credit Level: G. Credit Hrs: 1.00

26DB904
Journal Club
Discussions of research papers in a particular field. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00

26DB905
Journal Club
See 26DB904. Credit Level: G. Credit Hrs: 1.00

26DB906
Journal Club
See 26DB904. Credit Level: G. Credit Hrs: 1.00

26DB973
Developmental Biology Laboratory Research
Readings, discussions, research in lab of staff member on small defined problem: to familiarize student with research of staff; to teach lab technique and approach to research. Offered ea. qtr. May be taken repeatedly. Credit Level: G. Credit Hrs: 1.00-17.00

26DB985
Introduction to Developmental Biology
Principles of development of cells, tissues and organisms will be illustrated through genetic and biologic approaches. Credit Level: G. Credit Hrs: 3.00

26DB986
Advanced Developmental Biology
Principles of development of cells, tissues and organisms will be illustrated through genetic and cell biologic approaches. Credit Level: G. Credit Hrs: 4.00

26DB987
Development and Disease
This course would explore the developmental basis of human disease processes. It is a natural consequence of recent insights into the molecular basis of normal and abnormal development. This course will cover topics not covered in our other Developmental Biology courses. Credit Level: G. Credit Hrs: 3.00

Environmental Health Sciences

26EH5745
Introduction to Environmental Health
A general study of biological and medical principles and disciplines as they apply to the recognition and resolution of problems of environmental health. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

26EH5749
Quality Assurance and Quality Control in Environmental Toxicology and Chemistry
The principles and strategies for a QA/QC program to provide credible data and to evaluate the accuracy, bias, and precision of environmental, toxicological, and biological monitoring data forming the basis for critical decisions on vital human health and environmental matters. Credit Level: G. Credit Hrs: 3.00

26EH59750
Public Policy and Environmental Health
The community attitudes and political climates that impact on scientific information and determine public health policy. The Occupational Safety and Health Act and the Toxic Substances Act will be used as primary examples. Credit Level: G. Credit Hrs: 2.00

26EH5776
Special Topics -- Environmental Health
Seminars or tutorial sessions dealing with special topics as related to research and application basic to the field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26EH5777
Special Topics Environmental Health
See 26EH5776. Credit Level: G. Credit Hrs: 1.00-15.00

26EH5780
Special Topics Environmental Health
See 26EH5776. Credit Level: G. Credit Hrs: 1.00-15.00

26EH5785
Introductory Physiology
Basic biological principles with lectures on structure and function in mammals. Credit Level: G. Credit Hrs: 3.00

26EH5876
Special Topics -- Environmental Health
See 26EH5776. Credit Level: G. Credit Hrs: 1.00-15.00

26EH5877
Special Topics Environmental Health
See 26EH5776. Credit Level: G. Credit Hrs: 1.00-15.00

26EH5878
Special Topics Environmental Health
See 26EH5776. Credit Level: G. Credit Hrs: 1.00-15.00

26EH5879
Special Topics Environmental Health
See 26EH5776. Credit Level: G. Credit Hrs: 1.00-15.00

26EH5880
Special Topics Environmental Health
See 26EH5776. Credit Level: G. Credit Hrs: 1.00-15.00

26EH5976
Special Topics -- Environmental Health
See 26EH5776. Credit Level: G. Credit Hrs: 1.00-15.00

H=University Honors course.
Environmental Health Sciences

26EHS777 Special Topics Environmental Health
See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS76 Special Topics Environmental Health
See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS972 Special Topics Environmental Health
See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS978 Special Topics Environmental Health
See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

26EHS76 Environmental Health
See 26EHS776. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental and Industrial Hygiene

26EIH707 Principles of Occupational Exposure Assessment
Lectures, demonstrations on problems arising from man's environment, industrial hygiene, air pollution fundamentals and practices. Credit Level: G. Credit Hrs: 3.00

26EIH725 Teaching Practicum in Environmental Health
Practice of assisting and teaching in environmental courses by special arrangement with faculty member who will provide supervision. Credit Level: G. Credit Hrs: 1.00-3.00

26EIH726 Teaching Practicum in Environmental Health
See 26ENV725. Credit Level: G. Credit Hrs: 1.00-3.00

26EIH727 Teaching Practicum in Environmental Health
See 26ENV725. Credit Level: G. Credit Hrs: 1.00-3.00

26EIH741 Practice in Occupational Exposure Assessment I
Calibration of sampling equipment, collection and analysis of pollutant gases, vapors, and particles. Quality assurance/control. Control of exposures through use of respirators. Lec., lab. Credit Level: G. Credit Hrs: 3.00

26EIH742 Practice in Occupational Exposure Assessment II
Assessment of human exposure to chemical and physical occupational hazards: bioaerosols, heat stress, noise, chemicals. Exposure control through ventilation. Lec., lab. Taking the course Physical Aspects of the Environment (26-EIH-790) simultaneously or before is strongly recommended. Credit Level: G. Credit Hrs: 3.00

26EIH743 Physical and Biological Aspects of Aerosols
Concepts and parameters for generating, transport, sampling and characterizing airborne particles and microorganisms; principles and techniques for aerosol measurements; use of PM collectors and direct-reading instruments in indoor and ambient air environments; identification and enumeration of airborne microorganisms and aerobiology; bioaerosols and health effects. Credit Level: G. Credit Hrs: 3.00

26EIH771 Special Topics -- Air Pollution - Practice in Occupational Exposure Assessment 2
Seminars or tutorial sessions dealing with special topics in air pollution related to research and application basic to field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental and Industrial Hygiene

26EIH772 Energy and Environment
Environmental and health impacts of existing and developing energy systems, from source development to conversion to utilization, including transport elements, recycling, and conservation. Credit Level: G. Credit Hrs: 2.00

26EIH773 Special Topics Air Pollution - Oak Ridge National Laboratories
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH774 Special Topics Air Pollution - Occupational Exposure Assessment
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH775 Evaluation of Workplace Exposures
Evaluation of chemical, physical hazards in industrial workplaces. Potential hazards include noise, glare, heat, dust, solvents, electromagnetic radiation, etc. Credit Level: G. Credit Hrs: 3.00

26EIH776 Special Topics - Ventilation Design Concepts
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH777 Special Topics Air Pollution - Expanded EIH 742 Topics
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH779 Industrial Ventilation
Air flow through ventilation systems, and their design for industrial uses; selection of exhaust hoods; sizing of ducts; calculation of system pressure losses; selection of fans; design of complex systems. Credit Level: G. Credit Hrs: 3.00

26EIH781 Programmatic Aspects of Occupational Safety and Health
Principles, philosophies, basic concepts of occupational medicine, industrial hygiene, safety, nursing and epidemiology and their interrelationship. Credit Level: G. Credit Hrs: 1.00

26EIH782 Special Topics I.H.-Eval of WHO Toolbox for Exposure Control in Mozambique & other African Countries
Seminars or tutorial sessions dealing with special topics in industrial hygiene as related to research and application basic to field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH783 Special Topics-ERC Coal Mining Trip
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH784 Special Topics Industrial Hygiene - Aerosol Generation and Protection Laboratory
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH785 Special Topics Industrial Hygiene - Introduction to Occupational & Environmental Health
Replaces 26EIH781 - Intro to OCC Health - see 29AN CH810 course description Credit Level: G. Credit Hrs: 1.00-15.00

26EIH786 Occupational Health High School Workshop
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH790 Physical Aspects of the Environment
Principles and techniques of recognizing and evaluating health problems of vibration, heat, noise, non-ionizing radiation, ultraviolet, visible, infrared, and microwave. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Environmental and Industrial Hygiene

26EIH771
Occupational Health, Hygiene and Safety Workshop
Interdisciplinary workshop of occupational safety, occupational nursing, industrial hygiene, and occupational medicine students. Involves group projects, interdisciplinary presentations and team building skills. Credit Level: G. Credit Hrs: 2.00

26EIH782
Occupational Health, Hygiene and Safety Workshop
See 26EIH771. Credit Level: G. Credit Hrs: 2.00

26EIH821
Occupational Health, Hygiene and Safety Workshop
See 26EIH771. Credit Level: G. Credit Hrs: 2.00

26EIH834
Hazardous Materials Management
Technical, health, economic, and institutional issues in hazardous waste management, including generation, storage, transportation, treatment and disposal, field trips, risk assessment, emergency response, waste minimization ad computer applications. Credit Level: G. Credit Hrs: 2.00

26EIH835
Environmental Quality Management
Topics vary but include technical, economic, and institutional aspects of selected water, wastewater, solid and hazardous wastes, energy and housing programs. Credit Level: G. Credit Hrs: 2.00

26EIH843
Human Biological Monitoring and Biological Markers
The development and use of specific metabolites, DNA and protein adds, and general screening tests of exposure to chemicals and of adverse effects in humans. Credit Level: G. Credit Hrs: 3.00

26EIH845
Methods to Obtain Complete Occupational Histories
Students will attend the occupational medicine clinic, assist in obtaining an occupational history and research potential exposures for the jobs held to better understand effects of workplace exposures. Credit Level: G. Credit Hrs: 2.00

26EIH846
Effective Methods for Worker Health and Safety Training
Specific needs of adult learners, effective methods for workplace health and safety training and a practicum on program design are included. Open to students in hygiene, safety and related professionals. Credit Level: G. Credit Hrs: 2.00

26EIH871
Special Topics -- Air Pollution -- Bioaerosol sampling and analysis.
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH872
Special Topics Air Pollution - Readings in Biomonitoring
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH873
Special Topics - I. H. - Energy and the Environment
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH874
Special Topics Air Pollution - Biological Monitor-ing Particle Matter
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH875
Special Topics Air Pollution
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental and Industrial Hygiene

26EIH881
Special Topics -- Industrial Hygiene --Pilot Research Project (PRP)
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH882
Special Topics Industrial Hygiene-Carcinogenesis
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH883
Special Topics-Issues in Occupational Toxicology
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH884
Special Topics Industrial Hygiene - Professional Development
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH885
Special Topics Industrial Hygiene - Identification of Potential Workplace Exposures
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH901
Instrumental Methods of Analysis of Pollutants I
Lecture, lab. Chromatography. Credit Level: G. Credit Hrs: 3.00

26EIH902
Instrumental Methods of Analysis of Pollutants II
Lecture, laboratory. Direct reading instrumentation. Credit Level: G. Credit Hrs: 3.00

26EIH903
Instrumental Methods of Analysis of Pollutants III
Lecture, laboratory. Introduction to mass spectrometry, fluorescence and ultra-violet spectroscopy and allied topics. Credit Level: G. Credit Hrs: 3.00

26EIH904
Identification of Potential Workplace Exposures
Field trips to representative industrial plants to illustrate principles of industrial operations, and methods employed in controlling physical, chemical hazards. Credit Level: G. Credit Hrs: 2.00

26EIH905
Identification of Potential Workplace Exposures
See 26EIH904. Credit Level: G. Credit Hrs: 3.00

26EIH971
Advanced Topics in Environmental and Occupational Hygiene
Follow up to 26EIH775. Provide time for a structured review and discussion of the issues raised in the survey reports conducted in 26EIH775 history/ethics. OSHA procedures and history/ethics are covered in order to provide an opportunity for 2nd yr students to synthesize knowledge/skills. Credit Level: G. Credit Hrs: 1.00

26EIH972
Special Topics Air Pollution
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH973
Special Topics Air Pollution
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH974
Special Topics Air Pollution
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH975
Special Topics Air Pollution
See 26EIH771. Credit Level: G. Credit Hrs: 1.00-15.00

H=University Honors course.
Environmental and Industrial Hygiene

26EIH981
Current Topics in Occupational Hygiene
OH seminar series on current topics in the field. Meetings every other week. Credit Level: G. Credit Hrs: 1.00

26EIH982
Current Topics in Occupational Hygiene
OH seminar series on current topics in the field. Meetings every other week. Credit Level: G. Credit Hrs: 1.00

26EIH983
Current Topics in Occupational Hygiene
OH seminar series on current topics in the field. Meetings every other week Credit Level: G. Credit Hrs: 1.00

26EIH984
Special Topics Industrial Hygiene
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

26EIH985
Special Topics Industrial Hygiene
See 26EIH782. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental Health

26ENV701
Environmental Health Seminar
Lectures and discussions covering a broad range of problems in environmental health led by guest lecturers considered leaders in their field. Credit Level: G. Credit Hrs: 1.00

26ENV702
Environmental Health Seminar
See 26ENV701. Credit Level: G. Credit Hrs: 1.00

26ENV703
Environmental Health Seminar
See 26ENV701. Credit Level: G. Credit Hrs: 1.00

26ENV791
Master's Thesis Research
Credits to be arranged. This course is to be used by the student working on his/her master thesis. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV796
Special Topics
Seminars or tutorial sessions; biological science, toxicology, engineering, clinical medicine, related to environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV797
Special Topics
See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV798
Special Topics
See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV799
Special Topics
See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV891
Research
Credits to be arranged. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV896
Special Topics - Biomedical Engineering Applications for Study of Vascular Function
. Credit Level: G. Credit Hrs: 1.00-15.00

Environmental Health

26ENV987
Special Topics
See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV998
Special Topics
See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

26ENV999
Special Topics
See 26ENV796. Credit Level: G. Credit Hrs: 1.00-15.00

Graduate Medicine Interdepartmental

26GNTD720
Academic Conduct
This course will provide a description of academic and scientific conduct and misconduct, as outlined in the UC policy book, The Student Code of Conduct and the National Academy of Sciences publication, On Being a Scientist. Credit Level: G. Credit Hrs: 0.00-1.00

26GNTD730
Ethics in Research
A nine week lecture series addressing ethical issues in research including such topics as human experimentation, animal welfare, conflict of interest, and responsible authorship and publication practices. Credit Level: G. Credit Hrs: 1.00

26GNTD741
Medical Biochemistry and Human Genetics
Chemistry of proteins, enzymes and other macromolecules; bioenergetics, cellular and mammalian metabolism, metabolic control mechanisms, molecular genetics and nutrition. Credit Level: G. Credit Hrs: 7.00

26GNTD742
Medical Biochemistry and Human Genetics
Chemistry of proteins, enzymes and other macromolecules; bioenergetics, cellular and mammalian metabolism, metabolic control mechanisms, molecular genetics and nutrition. Credit Level: G. Credit Hrs: 5.00

26GNTD780
Flex Option Research
Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

26GNTD781
Flex Option Research
Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

H=University Honors course.
Graduate Medicine Interdepartmental

26GNTD781
Flex Option Research
Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

26GNTD782
Flex Option Research
Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

26GNTD783
Flex Option Research
Laboratory rotation for students in the Flex Option Program during the first year of graduate study in the College of Medicine. Credit Level: G. Credit Hrs: 1.00-12.00

26GNTD871
Molecular Genetics
Genetic concepts, DNA structure, replication and repair, recombination, transcription, translation, regulation, cloning methods. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26GNTD872
Biochemistry
Application of classical and molecular techniques to problems of protein structure and function; membrane organization and dynamics; biochemistry of membrane transport processes. Credit Level: G. Credit Hrs: 3.00

26GNTD873
Cell Biology
This course covers membrane biology and basic cell biology. Emphases include membrane structure and generation of resting and action potentials, cell compartmentalization and organelles, protein trafficking and secretion, cytoskeleton, extracellular matrix, nuclear architecture and chromosome structure. The course integrates morphological, biochemical and biophysical approaches. Credit Level: G. Credit Hrs: 3.00

26GNTD881
Introduction to Functional Genomics
The course will consist of a series of lectures/seminars on the theory and use of methods of functional genomics in biomedical research. Lectures will be presented by some local speakers and invited experts outside the university. The course will include eight lab sessions, five on bioinformatics that will be offered in an electronic classroom and three "wet labs" that will provide hands-on experience in practical application of functional genomics principles. Prereq: 26GNTD871. Credit Level: G. Credit Hrs: 3.00

Immunobiology

26IMM801
Journal Club
Critical reviews and group discussion of current issues and literature. Presentations will be made by students, faculty and outside speaker. Credit Level: G. Credit Hrs: 1.00

26IMM802
Journal Club
Critical reviews and group discussion of current issues and literature. Presentations will be made by students, faculty and outside speaker. Credit Level: G. Credit Hrs: 1.00

26IMM803
Journal Club
Critical reviews and group discussion of current issues and literature. Presentations will be made by students, faculty and outside speaker. Credit Level: G. Credit Hrs: 1.00

26IMM804
Journal Club
Research seminars by guest scientists and summations in progress by faculty and fellows. Credit Level: G. Credit Hrs: 1.00

26IMM805
Journal Club
Research seminars by guest scientists and summations in progress by faculty and fellows. Credit Level: G. Credit Hrs: 1.00

26IMM806
Journal Club
Research seminars by guest scientists and summations in progress by faculty and fellows. Credit Level: G. Credit Hrs: 1.00

26IMM807
Immunobiology Student / Post Doc Forum
Graduate students present their research with the aid of their mentor. Credit Level: G. Credit Hrs: 1.00

26IMM808
Seminar (Immunohematology Club)
Immunohematology Club is a seminar as part of the immunobiology graduate program curriculum. Credit Level: G. Credit Hrs: 1.00

26IMM872
Research
Investigative work in partial fulfillment of requirements for the Masters and the PhD degrees. Offered each quarter. Credit Level: G. Credit Hrs: 1.00-12.00

26IMM888
Foundations of Immunology I
Foundations of Immunology is intended to be a comprehensive immunology course for first year graduate students. It covers the structure and organization of the immune system, basic concepts of the innate and adaptive immune responses, and T and B cell development and biology. Lectures will also include details of immunological techniques. While the course has no formal prerequisites, students will find that some background in basic biochemistry, cell biology and molecular genetics will be desirable. Credit Level: G. Credit Hrs: 4.00

26IMM889
Foundations of Immunology II
This course is designed to apply the concepts learned in Foundations of Immunology I to understanding the regulation of immune responses and inflammation. Prereq: 26IMM888. Credit Level: G. Credit Hrs: 4.00

26IMM890
Advanced Topics in Immunology
This course will cover the most significant advances in immunological research, derived from the current literature. Each class section will focus on a specific topic with first, a short general discussion and second, a focused look at some isolated issues. Students will be assigned papers to present at each class session. Journal club format will be used, where the course director will cover background and introductory information on a current topic of immunology (i.e. chemokines, cytokine receptors, apoptosis, memory, etc.) and will subsequently lead a round table discussion of data from the primary literature. Designed for masters, doctoral and advanced undergraduate students with prior experience in immunology. A portion of the grade will be based on an NIH-style grant proposal turned in at the end of the course. The grant will be based on any paper that is covered in the course. The last session will consist of a student-run study section to critique the grants written by their peers. Prereq: 26IMM888, 26IMM889. Credit Level: G. Credit Hrs: 1.00

26IMM891
Advanced Topics in Immunology
This course will cover the most significant advances in immunological research, derived from the current literature. Each section will focus on a specific topic with a short general discussion and a focused look at some isolated issues. Students Students will be assigned papers to present at each class session. Journal club format will be used, in

H=University Honors course.
Immunobiology
26IMM891 Advanced Topics in Immunology
which the course director will cover background and introductory information on a current topic of immunology (chemokines, cytokines receptors, apoptosis, memory, etc.) and will sub- sequently lead a round table discussion of data from the primary literature. Designed for masters, doctoral and advanced undergraduate students with prior experience in immunology. A portion of the grade will be based on an NIH-style grant proposal turned in at the end of the class. The grant will be based on any paper that is covered in the class. The last session will consist of a student- run study section to critique the grants written by their peers. Credit Level: G. Credit Hrs: 2.00

Molecular, Cellular and Biochemical Pharmacology
26MCBP801 Lab Rotation
A series of practical laboratory methods employed in contemporary pharmacology research. Computer models and modeling, quantitative analysis, statistical applications, experimental design. Molecular, cellular, organ, organ system and organism levels. Credit Level: G. Credit Hrs: 1.00-12.00

26MCBP802 Lab Rotation
See 26MCBP801. Credit Level: G. Credit Hrs: 1.00-12.00

26MCBP803 Lab Rotation
See 26MCBP801. Credit Level: G. Credit Hrs: 1.00-12.00

26MCBP804 Lab Rotation
See 26MCBP801. Credit Level: G. Credit Hrs: 1.00-12.00

26MCBP805 Seminar
Emphasis on drugs; mechanism of action; historical, classical and novel concepts; current discoveries; trends in pharmacology. Oral presentation and written assignments/reports. Current literature and critical reviews. Credit Level: G. Credit Hrs: 1.00

26MCBP806 Seminar
See 26MCBP805. Credit Level: G. Credit Hrs: 1.00

26MCBP807 Seminar
See 26MCBP805. Credit Level: G. Credit Hrs: 1.00

26MCBP821 Cell Biophysics I
Membranes and Bioenergetics. Current concepts of structure, function, regulation, and intracellular integration of energy transducing membranes, with emphasis on their roles in heart muscle and in heart and neural diseases and aging. Credit Level: G. Credit Hrs: 3.00

26MCBP823 Integrated Molecular Pharmacology and Medicine
Pharmacology at the whole animal, organ, tissue, cellular and molecular levels. Integrated concepts of biomechanics and bioenergetics, structure and function, excitation-contraction coupling, ion transport, regulatory mechanisms, drug actions and transgenic approaches. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00-5.00

26MCBP831 Receptor Pharmacology
An introductory course designed specifically for graduate students to supplement portions of the primary course in pharmacology with emphasis on modern concepts of drug receptor interactions. Credit Level: G. Credit Hrs: 4.00

26MCBP837 Advanced Topics Protein Phosphorylation
Concepts of protein, phosphorylation by various protein kinases. Regulation of cellular functions through phosphorylation/ dephosphorylation processes. Credit Level: G. Credit Hrs: 3.00

26MCBP841 Pharmacology and Therapeutics I
Principles of drug action and the rational use of drugs in clinical disorders. Lectures, demonstrations, and conferences. Credit Level: G. Credit Hrs: 3.00

26MCBP842 Pharmacology and Therapeutics II
Continuation of 26MCBP841. Prereq: 26MCBP841. Credit Level: G. Credit Hrs: 2.00

26MCBP843 Pharmacology and Therapeutics III
Principles of drug action and the rational use of drugs in clinical disorders. Lectures, demonstrations, and conferences. Credit Level: G. Credit Hrs: 3.00

26MCBP844 Pharmacology and Therapeutics IV
Principles of drug action and the rational use of drugs in clinical disorders. Lectures, demonstrations, and conferences. Credit Level: G. Credit Hrs: 3.00

26MCBP851 Cardiac Muscle Bioenergetics
Current concepts of bioenergetics, molecular and cell biology as they relate to the intracellular integration of energy production and utilization in normal and ischemic cardiac muscle. Credit Level: G. Credit Hrs: 3.00

26MCBP871 Lab Rotation
A series of laboratory problems carried out under supervision of the staff. Credit Level: G. Credit Hrs: 1.00-15.00

26MCBP873 Advanced Topics in Electropharmacology
Membrane potentials and electrical models of nerve, muscle, and synapse. Analysis of ionic theories for bioelectric phenomena. Credit Level: G. Credit Hrs: 3.00

26MCBP888 Community Pharmacology
Individual research projects and seminars on use of drugs by medical and non-medical community, e.g., drug epidemiology, drug “abuse,” drug information. Credit Level: G. Credit Hrs: 2.00-6.00

26MCBP903 Special Topics in Pharmacology
This course offers advanced instruction in specialized areas of pharmacology. The content and format varies. Credit Level: G. Credit Hrs: 1.00-4.00

26MCBP905 Emerging Concepts in Targeting Common Metabolic Disorders
Students will be introduced to the emerging multidisciplinary concepts in the prevention and cure of the most common metabolic diseases. Credit Level: G. Credit Hrs: 2.00

26MCBP951 Molecular Pharmacology
The goal of this course is to introduce the major concepts, literature and experimental approaches related to the study of membrane transport proteins, including ion channels, pumps and transporters. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

26MCBP971 Research
Dissertation research in Pharmacology and Cell Biophysics. Credit
Molecular, Cellular and Biochemical Pharmacology

26MCBP871 Research
Level: G. Credit Hrs: 1.00-15.00

Molecular & Cellular Physiology

26MCBP841 Medical Physiology I
Subcellular organelles, cells, tissues, organ systems and their integrated activity. Focus: cellular, muscle, cardiac, circulatory, renal, respiration, the physiology acid base, and the physiology of energy balance and temperature regulation. Credit Level: G. Credit Hrs: 7.00

26MCBP842 Medical Physiology II
Subcellular organelles, cells, tissues, organs systems, and their integrated activity. Focus: gastrointestinal physiology, endocrine physiology, and the physiology of reproduction. Perm of Instructor. Credit Level: G. Credit Hrs: 5.00

26MCBP843 Graduate Physiology I
To understand the body fluid spaces and the forces and flows maintaining homeostasis at the cellular level. To understand biochemical and biophysical phenomena for the origin of the cell membrane potential to cardiac electrophysiology. To be able to characterize muscle mechanical properties as well as to understand the underlying mechanisms. To expose students to standard laboratory approaches used to explore essential cellular processes. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

26MCBP844 Graduate Physiology II
To provide a thorough understanding of the fundamental principles of cardiac and vascular physiology at the whole animal, organ and cell and molecular levels. To review some of the major research areas and experimental approaches that represent current and pressing questions in cardiovascular research. To expose students to laboratory environments and techniques currently in use to explore cardiovascular function - particularly in gene-manipulated mouse models. To review and evaluate the current literature in representative areas of cutting-edge cardiovascular research Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MCBP845 Graduate Physiology III
To provide a thorough understanding of the fundamental principles of renal, respiratory and acid-base physiology at the whole animal, organ, cell and molecular levels. To review major research areas and experimental approaches used in renal, respiratory and acid-base research. To familiarize students with techniques currently in use to explore renal, respiratory and acid-base function. To review and evaluate the current literature. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MCBP846 Graduate Physiology IV
To provide current understanding of hormone actions and endocrine control of body functions, particularly as it relates to the gastrointestinal system. To review major research areas and experimental approaches used in the study of hormone signaling and GI function. To familiarize students with techniques currently in use to explore endocrine and GI physiology. To critically review and evaluate current literature in the area of hormone signaling mechanism and control of epithelial function. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MCBP847 Graduate Physiology V
To provide a thorough understanding of the fundamental principles of neurophysiology animal, organ, cell and molecular levels. To review and evaluate the current literature in representative areas neurophysiology with attention to current experimental approaches. Credit Level: G. Credit Hrs: 3.00
Molecular & Cellular Physiology

26MCP951
Molecular Physiology I: Membrane Transport Proteins
G. Credit Hrs: 4.00

26MCP952
Molecular Physiology II: Molecular Endocrinology
This course is an advanced study of the molecular mechanisms responsible for hormone, growth factor and cytokine signal transduction. Credit Level: G. Credit Hrs: 4.00

26MCP953
Molecular Physiology III
The purpose of this course is to integrate abundant molecular biological information and classic organ physiology. The course will be directed to teach students how molecular biology approaches can be applied to study cell and organ function. Emphasis will be placed on the integration of key physiological concepts of selected topics, with particular focus on examples of control mechanisms and how they adapt to changes in the environment to maintain homeostasis. In addition, the topics will be selected from the point of view of their potential relevance in pathophysiology and treatment of major diseases. The clinical correlation will be presented. Credit Level: G. Credit Hrs: 4.00

26MCP963
Renal Physiology
Concepts of renal function. Discussions of glomerular and tubular functions. Credit Level: G. Credit Hrs: 2.00

26MCP970
Introduction to Research
Laboratory research for graduate students who have not yet advanced to candidacy. Credit Level: G. Credit Hrs: 1.00-15.00

26MCP971
Thesis Research
Thesis research in Molecular and Cellular Physiology. Credit Level: G. Credit Hrs: 1.00-15.00

26MCP978
Cell Biology of the Blood Vessel Wall
Focus on endothelial cell-vascular smooth muscle interactions in the control of vasomotor tone. Credit Level: G. Credit Hrs: 2.00

26MCP981
Physiology/Reproduction
Discussion of cellular mechanisms of reproductive hormone action, control of growth and development, gametogenesis, reproductive cycles, pregnancy including cardiovascular adaptations during pregnancy, and parturition. Current research methods and publications will be discussed. Credit Level: G. Credit Hrs: 3.00

Medicine

26MD101
Freshman MD Course
Medical curriculum for first year students. Credit Level: P. Credit Hrs: 24.00

26MD102
Freshman MD Course
Medical curriculum for first year students. Credit Level: P. Credit Hrs: 24.00

26MD103
Freshman MD Course
Medical curriculum for first year students. Credit Level: P. Credit Hrs: 24.00

26MD201
Sophomore MD Course
Medical curriculum for second year students. Credit Level: P. Credit Hrs: 24.00

26MD202
Sophomore MD Course
Medical curriculum for second year students. Credit Level: P. Credit Hrs: 24.00

26MD203
Sophomore MD Course
Medical curriculum for second year students. Credit Level: P. Credit Hrs: 24.00

26MD401
Junior MD Course
Medical curriculum for third year students. Credit Level: P. Credit Hrs: 24.00

26MD402
Junior MD Course
Medical curriculum for third year students. Credit Level: P. Credit Hrs: 24.00

26MD403
Junior MD Course
Medical curriculum for third year students. Credit Level: P. Credit Hrs: 24.00

26MD501
Senior MD Course
Medical curriculum for fourth year students. Credit Level: P. Credit Hrs: 24.00

26MD502
Senior MD Course
Medical curriculum for fourth year students. Credit Level: P. Credit Hrs: 24.00

26MD503
Senior MD Course
Medical curriculum for fourth year students. Credit Level: P. Credit Hrs: 24.00

26MD504
Senior MD Course
Medical curriculum for fourth year students. Credit Level: P. Credit Hrs: 24.00

26MD533
Medical Curriculum Special Studies
Special studies for the first, second, third or fourth year medical student. Schedules worked out in conjunction with the student, the Promotion Board and Student Affairs. Credit Level: P. Credit Hrs: 12.00

Molecular Gen, Biochem, Microbiol & Immunology

26MG599
Introduction to Immunology
A comprehensive introductory level immunology course for graduate students, advanced undergraduates, technicians and fellows. It will cover basic immunohemistry and cellular and molecular immunology. While the course has no official prerequisites, students will find that some background in basic biochemistry, cell biology and molecular genetics will be desirable. BoK: NS. Credit Level: U, G. Credit Hrs: 3.00

26MG620
Advanced Immunology-Contemporary Topic I
This course will cover the most significant advances in immunological research, derived from the current literature. Journal club format will be used, where the presenter will cover background and introductory information on a topic chosen with the advice and consent of the instructor, and will subsequently lead a round table discussion of data from the primary literature. Designed for masters, doctoral and
Molecular Gen, Biochem, Microbiol & Immunology

26MG620 Advanced Immunology-Contemporary Topic I
advanced undergraduate students with prior experience in immunology. Each student will be assigned as discussion leader twice per quarter. Enrollment limited to 10. BoK: NS. Credit Level: U. G. Credit Hrs: 1.00

26MG621 Advanced Immunology-Contemporary Topics II
Same as 26MG620. BoK: NS. Credit Level: U. G. Credit Hrs: 1.00

26MG622 Advanced Immunology-Contemporary Topics III
Same as 26MG620. BoK: NS. Credit Level: U. G. Credit Hrs: 1.00

26MG649 Pathogenic Mechanisms
This course covers the basics of bacterial fungal pathogenesis and virology with emphasis on viral replication. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MG708 Yeast Mutants as an Educational Tool
This course will provide teachers the necessary knowledge and training to permit them to teach fundamental aspects of modern molecular biological research to their K-12 students. This course will use a problem in yeast biochemical genetics to guide students through the application of the scientific method. The essential laboratory component of the class is designed to familiarize teachers with molecular genetic techniques. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

26MG710 Advanced Molecular Genetics I: Gene Regulation
Provides a literature-based view of major research questions, with emphasis upon gene structure and the regulation of gene expression. Student discussions are included with the lecture format. Prereq: 26GNTD871. Credit Level: G. Credit Hrs: 4.00

26MG711 Mechanisms of Signal Transduction
Provides a research literature-based view of modern aspects of signal transduction and includes student driven discussions of seminal papers in the signal transduction field. Topics include receptor-mediated signal transduction originating at the plasma membrane and covers major effector pathways including those leading to second messenger generation, kinase cascade assembly, and activation of transcription factors. We will be discussing signaling mechanisms related to cellular homeostasis, developmental biology, immunology, and cancer. Recommended prerequisites: Introduction to Molecular Genetics and Molecular Biology of the Cell I. Spring Quarter only. Prereq: 26GNTD871, 26GNTD872. Credit Level: G. Credit Hrs: 3.00

26MG712 Microbiology and Immunology
This course will provide individuals interested in microbiology with a firm foundation to pursue their studies. In addition, the course will provide all biological science students with the fundamentals of prokaryotic biology that lie at the heart of modern molecular genetic techniques. The topics to be covered include prokaryotic structure and function, gene regulation and protein synthesis, gene transfer, plasmids, bacteriophage genetics and restriction and modification of systems. Credit Level: G. Credit Hrs: 3.00

26MG718 Structural Biology
This course will cover structural techniques used to determine protein structure, dynamics and enzyme mechanisms. Particular emphasis will be placed on solution NMR techniques to problems in protein structure and enzyme mechanism. The course will consist of both lectures and a review of pertinent literature articles. Topics to be covered include NMR theory, practical aspects of biological NMR, the use of structural techniques in understanding HIV proteins, structural studies of muscle proteins, as well as mechanistic studies of ribonucleases and phosphoryl transfer enzymes. Credit Level: G. Credit Hrs: 2.00

26MG719 Proteins: Structure, Function and Engineering
Designed for graduate students who have completed the first quarter of Molecular Biology of the Cell. Protein design; enzyme specificity and mechanisms of catalysis; transport physiology and enzymology; macromolecular assembly, protein-protein interactions and signal transduction; NMR and macromolecular structure. Credit Level: G. Credit Hrs: 4.00

26MG730 PC Research Applications
An introduction to the use of database, spreadsheets, graphics, word processing programs, and DNA sequence analysis. Credit Level: G. Credit Hrs: 1.00

26MG820 Biologic Threat Agents
This course deals with microbes of interest in bioterrorism. Lectures providing background information on selected agents will be followed by student presentations of current research papers on the topic. Winter Quarter only. 3 gr. cr. hrs. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

26MG821 Human Genetics
Hours to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG822 Immunology
Hours to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG823 Advanced Topics in Structural Biology
This advanced topics course will explore the principles, methodologies, and practical applications of macromolecular crystallography in contemporary structural biology research. In addition to understanding the central issues that underlie macromolecular structure determination by crystallographic methods, students will learn through hands-on experiments of the practical aspects for growing crystals, collecting and analyzing X-ray diffraction data, and ultimately determining crystal structures. Credit Level: G. Credit Hrs: 1.00-3.00

26MG824 Image Analysis: A Practical Approach
This is a practical course on the application of image analysis to current problems in biological research. Students will be provided hands on experience with the application of state of the art image analysis equipment to problems in immunocytochemistry, gel analysis and fluorescence microscopy in living cells Credit Level: G. Credit Hrs: 2.00

26MG825 Nucleic Acids
DNA structure and DNA protein interactions during gene expression. Credit Level: G. Credit Hrs: 1.00-3.00

26MG826 Pathogenic Mechanisms
Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG827 Proteins/Enzymology
Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG828 Topics in Virology
Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

H=University Honors course.
Molecular Gen, Biochem, Microbiol & Immunology

26MG831
Growth Factors
Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG833
Topics in Genetics: Graduate Seminar
Hrs. to be arranged. Credit Level: G. Credit Hrs: 3.00

26MG834
Scientific Writing for Publication and Funding I
The aim of this course is to improve the student's ability to write scientific papers and grant proposals in a clear and cogent manner. Credit Level: G. Credit Hrs: 1.00

26MG835
Scientific Writing for Publication and Funding II
Continuation of 26MG834. Prereq: 26MG834. Credit Level: G. Credit Hrs: 1.00

26MG836
Myocardial Biology
The purpose of this course is to examine in detail the cardiac muscle cell with the major goal of understanding how the heart functions and is regulated. The role of calcium as a central regulator is stressed. Credit Level: G. Credit Hrs: 3.00

26MG837
Advanced Topics in Gene Regulation
A research article-based course exploring the most recent literature in the field of eukaryotic gene expression and mechanisms of gene regulation. Format will be primarily through numerous student-participatory discussions of research papers and will include several visits by noted leaders in the field from outside institutions. Offered every other year. Prereq: 26MG710. Credit Level: G. Credit Hrs: 3.00

26MG838
Special Topics in Molecular Genetics
Hrs. to be arranged. Credit Level: G. Credit Hrs: 1.00-3.00

26MG868
Genetics of Complex Diseases
Introduction to complex disease and traits. Epidemiology and genetic basis of complex diseases. Credit Level: G. Credit Hrs: 3.00

26MG870
Masters Research
Investigative work in partial fulfillment of the requirements for the Masters degree. Credit Level: G. Credit Hrs: 1.00-15.00

26MG921
Graduate Seminar in Molecular Genetics I
Review of current literature (under director of faculty adviser). Credit Level: G. Credit Hrs: 2.00

26MG922
Graduate Seminar in Molecular Genetics II
Review of current literature (under direction of faculty adviser). Credit Level: G. Credit Hrs: 2.00

26MG923
Graduate Seminar in Molecular Genetics III
Review of current literature (under direction of faculty adviser). Credit Level: G. Credit Hrs: 2.00

26MG950
Doctoral Literature Review
Independent study course where the student submits a short, written review describing previous work performed by others in the field related to his/her dissertation project. For Molecular Genetics Doctoral Students Only. Autumn Qtr. Credit Level: G. Credit Hrs: 1.00

26MG971
PHD Dissertation Research
Investigative work in partial fulfillment of the requirements for the PhD degree. Credit Level: G. Credit Hrs: 1.00-15.00

PHD Dissertation Research
Investigative work in partial fulfillment of the requirements for the PhD degree. Credit Level: G. Credit Hrs: 1.00-15.00

26MG972
Special Problems
Laboratory work and readings. The specific area of concentration will be determined by consultation with the staff. Credit Level: G. Credit Hrs: 1.00-15.00

Medical Physics

26MP941
Radiobiology I

26MP942
Radiobiology II
See 26MP941. Credit Level: G. Credit Hrs: 2.00

26MP943
Radiobiology III
See 26MP941. Credit Level: G. Credit Hrs: 2.00

26MP944
Radiologic Dosimetry I
Physical interactions between electromagnetic radiation and matter; exposure and absorbed dose; dose calculations for external and internal radiation sources. Credit Level: G. Credit Hrs: 2.00

26MP945
Radiologic Dosimetry II
See 26MP944. Credit Level: G. Credit Hrs: 2.00

26MP946
Radiologic Dosimetry III
See 26MP944. Credit Level: G. Credit Hrs: 2.00

26MP950
Radiologic Imaging Physics I
Physical principles of imaging including diagnostic radiology, x-ray equipment, image quality evaluation, information transfer systems, special imaging modalities of mammography, digital radiography, CT, ultrasound, MRI, nuclear medicine, radiation detection, clinical instrumentation. Credit Level: G. Credit Hrs: 2.00

26MP951
Radiologic Imaging Physics II
See 26MP950. Credit Level: G. Credit Hrs: 2.00

26MP952
Radiologic Imaging Physics III
Physical principles of imaging including diagnostic radiology, x-ray equipment, image quality evaluation, information transfer systems, special imaging modalities of mammography, digital radiography, CT, ultrasound, MRI, nuclear medicine, radiation detection, clinical instrumentation. Credit Level: G. Credit Hrs: 2.00

26MP972
Radiological Sciences Lab I
Selected laboratory experiments including surveys and calibrations of radiation units for diagnostic radiology, nuclear medicine, and therapeutic oncology. Credit Level: G. Credit Hrs: 2.00-4.00

H=University Honors course.
Medical Physics

26MP973
Radiological Sciences Lab II
See 26MP972. Prereq: 26MP972. Credit Level: G. Credit Hrs: 2.00-4.00

26MP981
Special Topics - Treatment Planning
Extend student knowledge of use of ionizing radiation for therapeutic gain, detailed information on specialized radiation therapy treatment. Credit Level: G. Credit Hrs: 3.00

26MP982
Special Topics - Quality Assurance
Will include initial acceptance of treatment units and continuing quality assurance of treatment units. Includes daily, weekly, monthly, annual quality assurance for proper completion of therapeutic prescription. Credit Level: G. Credit Hrs: 3.00

26MP983
Special Topics - Regulatory Issues
Detailed review of applicable regulatory issues associated with radiation therapy, regulatory roles of USNRC, USFDA, state agencies and issues which arise from hospital accreditation issues. Credit Level: G. Credit Hrs: 3.00

26MP984
Special Topics in Nuclear Medical Physics
Extend knowledge of nuclear medicine to clinical applications as well as imaging processing, quality assurance and radiation protection. Includes role of medical physicist in quality assurance and radiation protection. Credit Level: G. Credit Hrs: 3.00

26MP985
Special Topics in Diagnostic Radiological Physics
Extend students knowledge of clinical diagnostic radiological physics and issues of image processing, quality assurance and radiation protection. Credit Level: G. Credit Hrs: 3.00

26MP989
Advanced Imaging Physics
The course will extend the students knowledge of a particular aspect of diagnostic radiological physics. Topics will be selected on the basis of the interest of instructor and/or students. Credit Level: G. Credit Hrs: 3.00

26MP991
Research in Radiological Sciences
Selected research projects in diagnostic and therapeutic radiology, radiologic physics, nuclear medicine and radiobiology. Credit Level: G. Credit Hrs: 1.00-15.00

26MP992
Seminar: Current Research in Radiological Sciences
Reading, presentation, and critical discussion of recent research contributions in the radiological sciences. Credit Level: G. Credit Hrs: 1.00

26MP993
Clinical Medical Physics
Clinical experience in areas of physics applied to diagnostic radiology, therapeutic radiology, and nuclear medicine. Credit Level: G. Credit Hrs: 1.00-15.00

26MP995
Clinical Aspects of Treatment Planning
The course will familiarize students with clinical goals for radiation therapy as related to various tumor systems. The students will gain an appreciation of the role of radiation therapy as a therapeutic agent as well as the role of radiation physicist. Credit Level: G. Credit Hrs: 3.00

26MP996
Clinical Aspects of Treatment Planning
The course will familiarize students with clinical goals for radiation therapy as related to various tumor systems. The students will gain an appreciation of the role of radiation therapy as a therapeutic agent as well as the role of radiation physicist. Credit Level: G. Credit Hrs: 3.00

Neuroscience

26NS777
Scientific Writing for Neuroscientists
This course is designed to provide students with a solid background in scientific communication skills as they relate to neuroscience research. Students will be familiarized with various forms of science writing, including manuscript preparation, grant preparation and review articles. Credit Level: G. Credit Hrs: 3.00

26NS778
Fundamentals of Neuroscience I
This is the first half of a two-quarter course that will serve as an introduction to neuro-science for UC NS graduate students and interested students from other UC grad programs. This course will provide an overview of our current understanding of molecular and cellular neuroscience. Credit Level: G. Credit Hrs: 3.00

26NS779
Fundamentals of Neuroscience II
This is a second half of a two-quarter course that will serve as an introduction to neuroscience for graduate students in the UC NS Graduate Program and interested students from other UC graduate programs. Fundamentals of Neuroscience II is intended to integrate and extend topics covered in Fundamentals of Neuroscience I, and will provide an overview of our current understanding of neuroendocrine and motor systems, reward and addiction, and behavioral and cognitive neuroscience. Credit Level: G. Credit Hrs: 4.00

26NS830
Neuropharmacology
This course covers the neurochemical mechanisms underlying the behavioral effects of psychoactive drugs. Reference to specific neurotransmitter systems and drugs are used to illustrate general principles. Topics include drug modulation of synaptic transmission; brain adaptations to chronic drug treatments; psychotherapeutic drugs and what they tell us about the etiology of brain disorders. Credit Level: G. Credit Hrs: 2.00

26NS840
Survey of Neuroscience Research
Weekly research seminars by faculty to introduce incoming graduate students to research opportunities in neuroscience at the University of Cincinnati. This series of seminars will assist students in identification of laboratories in which they desire to do laboratory rotations and ultimately dissertation research. Credit Level: G. Credit Hrs: 1.00

26NS841
Brain and Behavior I
The first quarter of a two quarter sequence that introduces the principles and concepts of nervous system organization: structural organization, cellular neurophysiology, neuropharmacology, sensory and motor systems, higher cortical functions. Required for Neuroscience PhD students. Credit Level: G. Credit Hrs: 4.00-10.00

26NS842
Neuroscience: Development and Plasticity
A graduate course designed to introduce students to cellular and developmental neuroscience. Topics include: structure and function of the neuron and synapse; nervous system segmentation; neuronal and glial differentiation; axonal pathfinding; cellular mechanisms of learning; neural regeneration. Required for Neuroscience PhD students. Credit...
Neuroscience

26NS842
Neuroscience: Development and Plasticity
Level: G. Credit Hrs: 1.00-4.00

26NS850
Introduction to Laboratory Research
Laboratory research for graduate students who have not yet advanced to candidacy. Credit Level: G. Credit Hrs: 1.00-12.00

26NS851
Introduction to Laboratory Research
See 26NS850. Credit Level: G. Credit Hrs: 1.00-12.00

26NS852
Introduction to Laboratory Research
See 26NS850. Credit Level: G. Credit Hrs: 1.00-12.00

26NS861
Brain and Behavior II
An overview of human neurological and psychiatric disorders through the various stages of human development, including seizures, schizophrenia, substance abuse, Alzheimer's disease, Parkinson's disease and other movement disorders. The course is offered during a four-week concentrated block of time. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00-10.00

26NS901
Neuroscience Seminar
Formal presentations of current research in neuroscience will be given by speakers from both UC and other institutions. Credit Level: G. Credit Hrs: 1.00

26NS902
Neuroscience Seminar
See 26NS901. Credit Level: G. Credit Hrs: 1.00

26NS903
Neuroscience Seminar
See 26NS901. Credit Level: G. Credit Hrs: 1.00

26NS910
Neuroscience Journal Club
This course will emphasize critical analysis of current issues in neuroscience research. Presentations will be made by students, faculty and outside speakers and group discussion is encouraged. Credit Level: G. Credit Hrs: 1.00

26NS911
Neuroscience Journal Club and Ethics Module
See 26NS910. Credit Level: G. Credit Hrs: 1.00

26NS912
Neuroscience Journal Club
See 26NS910. Credit Level: G. Credit Hrs: 1.00

26NS930
Advanced Topics in Neuroscience
A didactic course intended to provide an in-depth analysis of the history, methodology, and/or current research in a specified topic in neuroscience. Credit Level: G. Credit Hrs: 1.00-4.00

26NS931
Neuronal Signal Transmission
Starting with the generation of an action potential (AP), the first half of this course describes in detail the mechanisms by which the electrical activity of an AP is converted into the release of neurotransmitter at the presynaptic nerve terminal, followed by the induction of ionic conductances at the postsynaptic terminal and finally how that information is transferred to the cell body of the target neuron. The second half of the course considers other types of signal transduction by which extracellular signals such as hormones and growth factors give rise to intracellular second messengers. A short section on cellular

Neuroscience

26NS931
Neuronal Signal Transmission
immunology is also included. Credit Level: G. Credit Hrs: 1.00-4.00

26NS940
Advanced Study in Neuroscience
Individualized readings or research in a specified topic in neuroscience. This course will allow students to study topics independently under the direction of faculty who have expertise in that area. Credit Level: G. Credit Hrs: 1.00-12.00

26NS999
Dissertation Research
Laboratory research for graduate students who have advanced to candidacy. Credit Level: G. Credit Hrs: 1.00-12.00

Occupational Medicine

26OCCM746
Survey of Public Health
An overview of various topics in public health, including health services administration, communicable disease, epidemiology, chronic disease epidemiology, and other issues of current public health concern suitable for both undergraduate and graduate students with wide variety of health care career interests. Credit Level: G. Credit Hrs: 3.00

26OCCM748
Occupational Health Management
The course will cover the principles in the development of a business plan in occupational health, including the basics of financial statements and projections, marketing and occupational health information systems. Credit Level: G. Credit Hrs: 3.00

26OCCM773
The Skin and the Environment
Lectures and discussions of basic science aspects of cutaneous reactions to environmental stress; clinical characteristics of environmental skin diseases and injuries; hazard identification, clinical management, prevention and control of environmental skin diseases and injuries. Credit Level: G. Credit Hrs: 2.00

26OCCM783
Occupational and Environmental Health Law
Overview of laws related to occupational and environmental health, including workers’ compensation, toxic tort litigation, Americans with Disabilities Act, Family Medical Leave Act, Occupational Safety and Health Act, and the role of scientific experts. Credit Level: G. Credit Hrs: 1.00

26OCCM786
Basics of Occupational Medicine I
A course designed to be an entry level, overview of occupational medicine for physicians, industrial hygienists, nurses and other health professionals. Credit Level: G. Credit Hrs: 2.00

26OCCM787
Special Topics - Occupational Medicine - Preventive Medicine
Seminars or tutorial sessions dealing with special topics in occupational medicine related to research and application basic to field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM788
Special Topics - Occupational Medicine - Basics of Environmental Medicine
See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM789
Special Topics - Occupational Medicine - Occupational Health Program Management & Administrative
See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

H=University Honors course.
26OCCM790  Special Topics - Respirators & Respiratory Protection
See 26OCCM854. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM791  Special Topics-Medical Toxicology
See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM844  Pulmonary Function Testing
Principles of pulmonary function testing including basic spirometry, lung volume and diffusion studies, specific and nonspecific challenge testing, A.T.S. standards and interpretation of test results. Credit Level: G. Credit Hrs: 1.00-10.00

26OCCM849  The Lung and the Environment I
Lectures and discussions on etiology, pathogenesis, evaluation and treatment of lung diseases of occupational and environmental origin. Credit Level: G. Credit Hrs: 2.00

26OCCM850  The Lung and the Environment II
See 26OCCM849. Credit Level: G. Credit Hrs: 2.00

26OCCM854  Respirators and Respiratory Protection I
This course will enable students to identify the proper type of respiratory protection to use based upon the hazards that exist. Government standards will be presented along with demonstrations of fit testing techniques. Problem solving and "hands-on" techniques will be stressed. Credit Level: G. Credit Hrs: 2.00

26OCCM877  Occupational Pulmonary Clinic
A clinical practice rotation designed for physicians to achieve proficiency in completing an occupational history and exam with special emphasis on lung toxins, ordering and interpreting appropriate pulmonary and radiographic tests, using acquired information to develop a complete differential for lung disorders, and forming a clinically and legally appropriate opinion of work relatedness. Credit Level: G. Credit Hrs: 2.00-4.00

26OCCM886  Special Topics -- Occupational Medicine - Public Health Selected Topics
See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM887  Special Topics - Occupational Medicine - Medicolegal Skills
See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM888  Occupational Dermatology Clinic
A clinical practice rotation designed for physicians to achieve proficiency in understanding common occupational skin problems and the physical, chemical and biological sources of these problems. Develop skills in differentiating between occupational and non-occupational skin disease and treatment/prevention of common occupational skin problems. Credit Level: G. Credit Hrs: 2.00-4.00

26OCCM889  Hospital Occupational Health Clinic
A clinical practice rotation designed for physicians to acquire knowledge of hazards present in hospital environment and develop the ability to recognize and treat common infectious exposures. Develop ability to design and implement site specific health promotion and surveillance programs. Acquire knowledge of psychological and social stresses of work in hospital environment along with role of Employee Assistance Programs. Credit Level: G. Credit Hrs: 1.00-15.00

H=University Honors course.
Occupational Medicine

26OCCM931
Occupational Medicine Resident - Non-Industrial Clinical Experience
See 26OCCM929 for course description. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM932
Occupational Medicine Resident - Non-Industrial Clinical Experience
See 26OCCM929 for course description. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM986
Special Topics -- Occupational Medicine -- NIOSH Industrial Days
See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM987
Basics of Environmental Medicine
A comprehensive overview of environmental medicine, appropriate for multidisciplinary student participation, directed at the interactive disciplines of medicine, nursing, epidemiology, industrial hygiene, toxicology, environmental engineering and safety and other relation disciplines. Two credit hours course features didactic lectures by speakers who are experts in the field. Third hour will be required for the Occupational Medicine residents. Credit Level: G. Credit Hrs: 2.00-3.00

26OCCM988
Special Topics - Occupational Medicine
See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM989
Special Topics - Occupational Medicine
See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

26OCCM990
Special Topics - Occupational Medicine
See 26OCCM787. Credit Level: G. Credit Hrs: 1.00-15.00

Occupational Safety and Ergonomics

26OSE744
Biomechanical and Physiological Aspects of Muscular Activity
Biomechanics of human static posture and dynamic motion, cardiovascular and metabolic cost of muscular activity, biomechanics of trauma, spinal mechanics, and biomechanical modelling. Credit Level: G. Credit Hrs: 3.00

26OSE748
Introduction to Measurement Techniques in Ergonomics
Provide students with an understanding and working knowledge of how to evaluate and control the risk of musculoskeletal disorders of the low back and upper extremity in the design of industrial workpl ace. Risk & exposure assessment techniques will be discussed. Credit Level: G. Credit Hrs: 3.00

26OSE756
Special Topics -- Introduction to Measurement Techniques in Ergonomics
Seminars or tutorial sessions dealing with special topics in occupational safety as related to research and application basic to the field of environmental health. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE757
Special Topics - Occupational Safety -Introduction to Ergonomic Laboratory Research
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE758
Special Topics - Occupational Safety - Human Vibration
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

Occupational Safety and Ergonomics

26OSE759
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE760
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE792
Principles of Ergonomics
Concepts, criteria to achieve optimal mutual fitting of worker capabilities to job. Biomechanics, heat, cold, shift work, fatigue, anthropometry, task analysis, cumulative trauma disorders, work station/tool design. Credit Level: G. Credit Hrs: 3.00

26OSE856
Special Topics -- Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE857
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE858
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE859
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE860
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE873
Basic Industrial Safety
Content, administration and implementation of safety programs in industry. Covers good practices and governmental regulations. Credit Level: G. Credit Hrs: 2.00

26OSE956
Special Topics -- Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE957
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE958
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE959
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

26OSE960
Special Topics - Occupational Safety
See 26OSE756. Credit Level: G. Credit Hrs: 1.00-15.00

Public Health

26PH701
Introduction to Evidence Based Public Health
This course will include an orientation to the US public health system, current concepts and issues, and major contemporary public health problems. A second content theme will include a brief overview of the development of the quality improvement movement in medicine, resulting in the evidence based public health movement. These two segments will be integrated as students learn to apply the principles of an evidence based approach to current public health problems in the
26PH701 Introduction to Evidence Based Public Health

greater Cincinnati area. A seminar style of teaching, employing small group discussion of cases, will be employed. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH702 Health Systems and Health Policy

Course content will include the application of political science and economics to the planning, financing, organization, administration, and evaluation of policy affecting the public's health. Topics will include the organization and effectiveness of United States health care and public health systems; determinants of health, need, and utilization; quality, costs and accessibility of care; development of public policy concerning medical care and public health, emergency preparedness, and the relationship between public decisions and the marketplace as they concern the public's health. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH703 Introduction to Population Health and Disease

Course content will include distributions, determinants, and natural history of disease, disabilities and death in human populations; the characteristics and dynamics of health and illness in human populations, including the application of genomic issues and studies to public health. A seminar style of teaching, employing small group discussion of cases, will be employed. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH704 Legal and Ethical Issues in Public Health

Course content will include public health law and the uses of law to promote the public's health; the ethical and legal bases for public health practice and research, including the belief that people are interdependent on each other and the environment; the priority of addressing the root causes of health and illness; and the importance of communicating public health messages in ways that respect the values, opinions, beliefs and practices of people in various communities. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH705 Statistical Analysis for Public Health Practitioners

Public Health workers need to read and interpret public health and medical literature to keep abreast of the latest methods. This course will provide an introduction of basic concepts of statistics, methods of statistical analysis and tools of statistical computation. The goal is to help students understand the language of statistics and the art of statistical investigation; perform basic statistical analysis of their own research; and read and evaluate analytical results in health and research articles. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH706 The Environment and the Public's Health

Starting with a review of the major human and natural activities that threaten the public's health (overpopulation, climate change, peak oil, etc) this course will examine the causal links between chemical, physical, and biological agents in the environment and their impact on human health. The basic principles of toxicology will be presented including dose-response relationships, absorption, distribution, metabolism, and excretion of chemicals. The overall role of environmental risks in the pattern of human disease, both nationally and internationally, will be covered. The engineering and policy strategies, including risk assessment, used to evaluate and control these risks will be introduced. Credit Level: G. Credit Hrs: 4.00

26PH707 Community Assessment and Programming

This course is designed to assist students in acquiring skills related to defining a health problem, conducting an assessment, and developing, implementing and evaluating health programs. Students will acquire the skills needed to assess the health patterns of communities and populations in partnership with key members of the community that concern the public's health. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH708 Community Assessment and Programming

This course is designed to assist students in acquiring skills related to defining a health problem, conducting an assessment, and developing, implementing and evaluating health programs. Students will acquire the skills needed to assess the health patterns of communities and populations in partnership with key members of the community that concern the public's health. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH709 Public Health Practicum

The Practicum is an individually-planned, supervised, and evaluated practice experience through which the student will develop an understanding of and appreciation for practice in a public health-related environment relevant to their chosen concentration. The typical practicum will occur at a public health agency with the student supervised on-site by a qualified preceptor who may have an adjunct faculty appointment. The Practicum site will be selected by the student from a listing of available, approved sites within their concentration of choice and must be approved by their advisor. Projects or problems identified during the Practicum may well lead directly into the Capstone. The practicum is set up with three sections. One for each concentration. Section 001 is for the health education and Section 002 is for the Leadership Concentration. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH710 Community Assessment and Programming

This course is designed to assist students in acquiring skills related to defining a health problem, conducting an assessment, and developing, implementing and evaluating health programs. Students will acquire the skills needed to assess the health patterns of communities and populations in partnership with key members of the community that concern the public's health. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH711 Leadership Development In Public Health

This course will include the development of management skills and leadership attitudes and competencies which allow the promotion and implementation of sound health policy and practices. Concepts covered include stewardship, equity, social justice and accountability. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH712 Understanding Vulnerable Populations

This course aims to examine concepts and methods in the study of vulnerability in health and in particular, strategies and future directions for resolving disparities in health care access, quality, and health status at the community and national levels. Vulnerability risks will be defined, and implications for public health and social and human services delivery will be discussed. A comprehensive approach incorporating individual and community factors and current government and private initiatives will be reviewed. Also included will be interpretation of the existing knowledge and programs for application at the community level. Credit Level: G. Credit Hrs: 4.00

26PH713 Policy and Advocacy For Public Health

An advanced course for those interested in the role of policy and advocacy in improving the public's health at the state and national levels. Students will understand the roles of legislation and regulation and how to effect these processes, as well as how these processes in turn affect public health's ability to perform its core functions. Students will aid in the development of policy briefs on targeted issues. Perm of Department. Credit Level: G. Credit Hrs: 4.00

26PH714 Global and International Health Systems

Course will provide an overview of global and national health systems to provide the student with a perspective on how national and other societies approach health and health care including cultural, economic and political systems. In addition to the World Health Organization, certain UN agencies and NGOs, national systems from the developed and under-developed world will be examined and contrasted, including those of England, Canada, China and Cuba. Credit Level: G. Credit Hrs: 4.00

26PH715 Global and International Health Systems

Course will provide an overview of global and national health systems to provide the student with a perspective on how national and other societies approach health and health care including cultural, economic and political systems. In addition to the World Health Organization, certain UN agencies and NGOs, national systems from the developed and under-developed world will be examined and contrasted, including those of England, Canada, China and Cuba. Credit Level: G. Credit Hrs: 4.00

26PH716 Global and International Health Systems

Course will provide an overview of global and national health systems to provide the student with a perspective on how national and other societies approach health and health care including cultural, economic and political systems. In addition to the World Health Organization, certain UN agencies and NGOs, national systems from the developed and under-developed world will be examined and contrasted, including those of England, Canada, China and Cuba. Credit Level: G. Credit Hrs: 4.00

26PH717 Global and International Health Systems

Course will provide an overview of global and national health systems to provide the student with a perspective on how national and other societies approach health and health care including cultural, economic and political systems. In addition to the World Health Organization, certain UN agencies and NGOs, national systems from the developed and under-developed world will be examined and contrasted, including those of England, Canada, China and Cuba. Credit Level: G. Credit Hrs: 4.00

26PH718 Global and International Health Systems

Course will provide an overview of global and national health systems to provide the student with a perspective on how national and other societies approach health and health care including cultural, economic and political systems. In addition to the World Health Organization, certain UN agencies and NGOs, national systems from the developed and under-developed world will be examined and contrasted, including those of England, Canada, China and Cuba. Credit Level: G. Credit Hrs: 4.00
Public Health

26PH798 Public Health Capstone I
The culmination experience is the mechanism by which the student demonstrates her/his ability to synthesize and integrate the knowledge and skills gained throughout the program. It allows the student to apply theory and principles in a situation that approximates some aspect of professional problem-solving practice and serves as a means by which faculty judge whether the student has mastered the body of knowledge and can demonstrate proficiency in the required competencies. Many different models are acceptable, including written or oral comprehensive examinations, supervised practice experiences, a major written paper such as a thesis or an applied research project, development of case studies, extended internship with portfolio, capstone seminars and others. The capstone will be proposed by the student with the approval of her/his advisor; a faculty supervisory committee will be identified to oversee the student’s progress through the capstone. Students will typically register for the capstone across more than one term. Credit Level: G. Credit Hrs: 2.00-6.00

26PH799 Public Health Capstone II
The culmination experience is the mechanism by which the student demonstrates her/his ability to synthesize and integrate the knowledge and skills gained throughout the program. It allows the student to apply theory and principles in a situation that approximates some aspect of professional problem-solving practice and serves as a means by which faculty judge whether the student has mastered the body of knowledge and can demonstrate proficiency in the required competencies. Many different models are acceptable, including written or oral comprehensive examinations, supervised practice experiences, a major written paper such as a thesis or an applied research project, development of case studies, extended internship with portfolio, capstone seminars and others. The capstone will be proposed by the student with approval of her/his advisor; a faculty supervisory committee will be identified to oversee the student’s progress through the capstone. Students will typically register for the capstone across more than one term. Credit Level: G. Credit Hrs: 2.00-6.00

Pathobiology and Molecular Medicine

26PMM599 Introductory Immunology
This course is intended to be a comprehensive introductory level immunology course for graduate students, advanced undergraduates, technicians and fellows. It will cover basic immunchemistry, cellular, and molecular immunology. While the course has no official prerequisites, students will find that some background in basic biochemistry, cell biology and molecular genetics would be desirable. BoK: NS. Credit Level: U. G. Credit Hrs: 3.00

26PMM721 Methods in Biomedical Research
Rigorous laboratory course designed to familiarize the aspiring scientist in the biologic sciences with contemporary research methods (including molecular biologic techniques) as they are applied to the study of human disease. Credit Level: G. Credit Hrs: 5.00

26PMM884 Histology for Research
A hands-on graduate level course for researchers who use transgenic mice as models of gene function or human disease. After taking this course, the student will have an understanding of the structure and function of all major organ systems, and will be proficient in the comparative anatomy of human and rodent tissues. Previous coursework in physiology is beneficial, but not required. Course may be taken for 1 credit (histologic identification only) or 3 credits (histologic identification and basic organ system physiology). Credit Level: G. Credit Hrs: 1.00-3.00

26PMM885 Basic Principles of Pathology
Lecture and seminar with basic concepts of pathobiology, including cell degeneration, inflammation, toxic, immunologic, infectious, and environmental injury and neoplasia. Credit Level: G. Credit Hrs: 0.00-3.00

26PMM891 Research Rotation-Fall
Laboratory work, readings in research aspects of pathobiology and molecular medicine. Specific area of concentration determined by consultation with staff. Credit Level: G. Credit Hrs: 3.00-5.00

26PMM892 Research Rotation-Winter
See 26PMM891. Credit Level: G. Credit Hrs: 3.00-5.00

26PMM893 Research Rotation-Spring
See 26PMM891. Credit Level: G. Credit Hrs: 3.00-5.00

26PMM894 Research Rotation-Summer
See 26PMM891. Credit Level: G. Credit Hrs: 3.00-5.00

26PMM899 Immunology of Disease
Basic cellular and molecular mechanisms of immunity as they relate to the pathogenesis of disease. Host responses to cancer and infection, congenital immunodeficiencies and AIDS. Prereq: 26PMM599. Credit Level: G. Credit Hrs: 2.00

26PMM900 Elective Rotation in Pharmaceutical Research
Lecture, demonstration, clinical correlation and laboratory exercise covering pathology of organ systems. Credit Level: G. Credit Hrs: 5.00

26PMM971 Thesis Research in Pathobiology and Molecular Medicine
Hours and credits to be arranged. Offered each quarter. Restricted to P&M students who have advanced to candidacy. Credit Level: G. Credit Hrs: 1.00-15.00

26PMM979 Research Seminar
A seminar-type class offering discussion of contemporary papers in experimental pathobiology and molecular medicine. Emphasis is on learning to read scientific literature, to interpret data, and to understand concepts of experimental design. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00

26PMM980 Research Journal Club
This course is designed to teach students how to read scientific literature. It will include group discussions on the content of the literature including interpretation of data and experimental design and implementation. Credit Level: G. Credit Hrs: 1.00

26PMM981 Molecular Pathogenic Mycology
The goal of this course is to provide information on the basic biology, genetics, and clinical importance of the major human fungal pathogens. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

26PMM983 Pathobiology of Lipid-related Disease
Pathobiology of Lipid-related Disease is an intensive course designed for graduate students serious about obtaining a firm understanding of the basics of lipid structure/function, metabolism and the pathological conditions that arise from mishandling of lipids in the body. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00
Physician Scientist Training Program

26PSTP740
Basic Science and Clinical Research
Basic science or clinical research. Credit Level: G. Credit Hrs: 1.00-12.00

26PSTP741
Brain & Behavior I
This course introduces the principles and concepts of nervous system organization: structural organization, cellular neurophysiology, neuropatharmacology, sensory and motor systems, higher cortical functions. Credit Level: G. Credit Hrs: 9.00

26PSTP742
Brain & Behavior II
An overview of human neurological and psychiatric disorders through the various stages of human development, including seizures, schizophrenia, substance abuse, Alzheimer's disease, Parkinson's disease and other movement disorders. The course is offered during a four-week concentrated block of time. Credit Level: G. Credit Hrs: 3.00-4.00

26PSTP743
Clinical Foundations of Medical Practice I
This course is designed to prepare MD/PhD students for their clinical years. Credit Level: G. Credit Hrs: 3.00

26PSTP744
Clinical Foundations of Medical Practice II
This is required for MD/PhD students. It is designed to prepare medical students for their clinical years. Credit Level: G. Credit Hrs: 3.00-4.00

26PSTP745
Pathobiology and Molecular Medicine
The normal microscopic structure of cells, tissues and organs with emphasis on structural-functional relationships. Credit Level: G. Credit Hrs: 3.00

26PSTP746
Pathobiology and Molecular Medicine
An advanced topics course that uses a journal club format to discuss recent advances in the basic biology and genetics of the major human fungal pathogens. Credit Level: G. Credit Hrs: 1.00

26PSTP747
Pathobiology and Molecular Medicine
A study of the biology of microorganisms with emphasis on important examples of infectious agents (bacteria, viruses and fungi); the principles of immunology with stress placed on the relationship between host and microbe; the role of microbiology in clinical medicine and surgery. Credit Level: G. Credit Hrs: 3.00-4.00

26PSTP748
Pathobiology and Molecular Medicine
The purpose of this course is to provide a background in several important topics within Hem/Onc for students in the first year of the Pathobiology and Molecular Medicine curriculum, but it is also open to graduate students from other programs. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

26PSTP749
Pathobiology and Molecular Medicine
The normal microscopic structure of cells, tissues and organs with emphasis on structural-functional relationships. Credit Level: G. Credit Hrs: 3.00

26PSTP750
Medical Histology and Cell Biology
The normal microscopic structure of cells, tissues and organs with emphasis on structural-functional relationships. Credit Level: G. Credit Hrs: 3.00

26PSTP751
Medical Histology and Cell Biology
Study of the body walls, cavities, and lower limb, and head, neck, and upper limb of the human body in the dissecting room; supplemented by lectures. Credit Level: G. Credit Hrs: 3.00

26PSTP752
Medical Histology and Cell Biology
This course is designed to prepare MD/PhD students for their clinical years. Credit Level: G. Credit Hrs: 3.00

26PSTP753
Medical Histology and Cell Biology
An overview of human neurological and psychiatric disorders through the various stages of human development, including seizures, schizophrenia, substance abuse, Alzheimer's disease, Parkinson's disease and other movement disorders. The course is offered during a four-week concentrated block of time. Credit Level: G. Credit Hrs: 3.00-4.00

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<th>Course Title</th>
<th>Credit Level:</th>
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<tr>
<td>26TOX794</td>
<td>Special Topics - Occupational Toxicology</td>
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<td>1.00-15.00</td>
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<td>26TOX795</td>
<td>Special Topics - Toxicology Survey of Occupational and Environmental Toxicology II</td>
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<td>26TOX837</td>
<td>Toxicology Seminar</td>
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<td>26TOX838</td>
<td>Toxicology Seminar</td>
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<td>26TOX841</td>
<td>Development of Scientific Hypotheses</td>
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<tr>
<td>26TOX848</td>
<td>Introduction to Bioinformatics and Biocomputing</td>
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<td>26TOX851</td>
<td>Environmental Genetics and Molecular Toxicology (EGMT) Core Course</td>
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<td>26TOX852</td>
<td>Environmental Genetics and Molecular Toxicology (EGMT) Core Course</td>
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<td>26TOX878</td>
<td>Applied Risk Assessment</td>
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<td>26TOX883</td>
<td>Environmental Mutagenesis and Carcinogenesis</td>
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<td>26TOX885</td>
<td>Neurobehavioral Toxicology</td>
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<td>26TOX890</td>
<td>Mechanisms in Environmental Chemical Carcinogenesis</td>
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<td>26TOX991</td>
<td>Special Topics - Toxicology</td>
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<td>Special Topics - Toxicology</td>
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<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hrs</th>
<th>Prerequisites</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>29ANAH505</td>
<td>Bridging the Gap in Oncology Nursing Care</td>
<td>2.00</td>
<td>29NURS825, 29NURS813</td>
<td>The course is designed to enhance nursing students' knowledge regarding the special health care requirements of specific populations. An examination of particular health care issues that are unique to the adolescent, women, and the elderly is conducted. The student engages in beginning therapeutic interventions and the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. Course includes at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 2.00</td>
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<tr>
<td>29ANAH602</td>
<td>Special Populations in Primary Care</td>
<td>2.00</td>
<td>29NURS825, 29NURS813</td>
<td>This course provides an in-depth exploration of the special health care requirements of specific populations. An examination of particular health care issues that are unique to the adolescent, women, and the elderly is conducted. The student engages in beginning therapeutic interventions and the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. Course includes at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 2.00</td>
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<td>29ANAH804</td>
<td>Advanced Adult Pathophysiology</td>
<td>2.00</td>
<td>29NURS825, 29NURS813</td>
<td>This course builds upon the student's pre-existing knowledge of the pathophysiology of disease in adults and the normal health patterns of aging. The focus of the course is on the study of alterations that occur as variations in health patterns across the life span. It explores the underlying cellular mechanisms that form the basis for advanced nursing practice to manage the variations in health patterns of adult client systems. The theoretical basis of evolving health patterns in the aging populations is explored. Course includes at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 2.00</td>
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<td>29ANAH805</td>
<td>Advanced Adult Acute Care Nursing I</td>
<td>3.00</td>
<td>29NURS825, 29NURS813</td>
<td>This course provides an in-depth exploration of the special health care requirements of specific populations. An examination of particular health care issues that are unique to the adolescent, women, and the elderly is conducted. The student engages in beginning therapeutic interventions and the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. Course includes at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 2.00</td>
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<td>29ANAH806</td>
<td>Well Women and Special Populations for Advanced Nursing</td>
<td>3.00</td>
<td>29NURS825, 29NURS813</td>
<td>This course builds upon the student's pre-existing knowledge of the pathophysiology of disease in adults and the normal health patterns of aging. The focus of the course is on the study of alterations that occur as variations in health patterns across the life span. It explores the underlying cellular mechanisms that form the basis for advanced nursing practice to manage the variations in health patterns of adult client systems. The theoretical basis of evolving health patterns in the aging populations is explored. Course includes at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 2.00</td>
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<tr>
<td>29ANAH807</td>
<td>Advanced Adult Acute Care Nursing II</td>
<td>3.00</td>
<td>29NURS825, 29NURS813</td>
<td>This course builds upon the student's pre-existing knowledge of the pathophysiology of disease in adults and the normal health patterns of aging. The focus of the course is on the study of alterations that occur as variations in health patterns across the life span. It explores the underlying cellular mechanisms that form the basis for advanced nursing practice to manage the variations in health patterns of adult client systems. The theoretical basis of evolving health patterns in the aging populations is explored. Course includes at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 2.00</td>
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<tr>
<td>29ANAH808</td>
<td>Adult Health Assessment and Differential Diagnosis</td>
<td>3.00</td>
<td>29NURS825, 29NURS813</td>
<td>This course builds upon the student's pre-existing knowledge of the pathophysiology of disease in adults and the normal health patterns of aging. The focus of the course is on the study of alterations that occur as variations in health patterns across the life span. It explores the underlying cellular mechanisms that form the basis for advanced nursing practice to manage the variations in health patterns of adult client systems. The theoretical basis of evolving health patterns in the aging populations is explored. Course includes at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 2.00</td>
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</tbody>
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H=University Honors course.
Advanced Nursing - Adult Health

29ANAH810
Advanced Acute Care Practicum I
Implementation of the roles inherent in advanced nursing practice. Clinical experiences take place in various environmental contexts including acute care and primary care. Prereq: 29NURS811, 29NURS812. Coreq: 29ANAH804, 29ANAH808, 29ANAH811, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29ANAH811
Advanced Adult Health Nursing I
Provides the theoretical base to manage the care of adults with selected health pattern alterations as transitions occur across acute and ambulatory care. Ethical considerations and role components in advanced nursing practice are addressed within the context of holistic nursing care. Credit Level: G. Credit Hrs: 3.00

29ANAH812
Advanced Adult Health Nursing II
Prepares students to manage the health care of adults with major mortality and morbidity health pattern alterations that directly affect multiple systems or are more complex. Focus is on the promotion, maintenance and restoration of adult health patterns as transition occurs across acute and ambulatory care. Credit Level: G. Credit Hrs: 3.00

29ANAH813
Advanced Adult Health Nursing Practicum I
(9 clinical contact hours per week). Provides the opportunity for students to engage in comprehensive assessment, diagnosis and care planning activities for adults with health pattern alterations and implementation of the roles inherent in advanced nursing practice. Credit Level: G. Credit Hrs: 3.00

29ANAH814
Advanced Adult Health Nursing Practicum II-Part 1
(9 clinical contact hours/week). Focuses on the selection and implementation of therapeutic nursing intervention, the design of newly required therapeutic interventions, and formulation of measurable outcome criteria. Collaboration as a member of the multidisciplinary health care team is emphasized. Credit Level: G. Credit Hrs: 3.00

29ANAH815
Advanced Adult Health Nursing Practicum II-Part 2
(9 clinical contact hours/week including 1 hour of seminar). This practicum is a continuation of 29ANAH814 and may be taken concurrently or sequentially. Credit Level: G. Credit Hrs: 3.00

29ANAH818
Advanced Adult Health Nursing Practicum III-Part 1
Focuses on comprehensive assessment, diagnosis and care planning activities for adults with health pattern alterations and implementation of the roles inherent in advanced nursing practice. Clinical experiences will take place in mutually negotiated setting. Prereq: 29ANAH812, 29ANAH815. Credit Level: G. Credit Hrs: 4.00

29ANAH819
Advanced Adult Health Nursing Practicum III-Part 2
This practicum is a continuation of 29ANAH818 and may be taken concurrently or sequentially. Credit Level: G. Credit Hrs: 4.00

29ANAH820
Advanced Adult Health Nursing III
This is the third of three sequential seminars that provides students with the theoretical base to manage the care of client systems across the adult life span with selected health pattern alterations. Students focus on the promotion, maintenance, and restoration of client system’s health patterns as transition occurs across acute and ambulatory care environmental contexts. Client systems with selected health pattern alterations reflecting the major adult mortality and morbidity or the most common health problems encountered by advanced practice nurses are discussed. Students focus on the management of single disorders that affect adult client systems. Ethical considerations and role components in advanced nursing practice are addressed within the context of holistic nursing care. Credit Level: G. Credit Hrs: 3.00

29ANAH821
Advanced Acute Care Practicum II: Part 1
The practicum is the second of three sequential clinical practica in advanced acute care nursing. Students engage in comprehensive assessment, diagnosis, and care planning activities for client systems with common health pattern alterations. The clinical experiences focus on the selection and implementation of extant therapeutic nursing interventions, the continued design of newly required therapeutic interventions, and formulation of measurable outcome criteria related thereto. Collaboration as member of the multidisciplinary health care team is emphasized. The student engages in implementation of the roles inherent in advanced nursing practice. Clinical experiences take place in various environmental contexts including acute care and ambulatory care. Prereq: 29ANAH810. Coreq: 29ANAH801, 29ANAH803, 29ANAH807, 29ANAH812. Credit Level: G. Credit Hrs: 3.00

29ANAH822
Advanced Acute Care Practicum II: Part 2
The course is a continuation of Advanced Acute Care Nursing Practicum II, Part 1, 29ANAH821. Prereq: 29ANAH810. Coreq: 29ANAH821. Credit Level: G. Credit Hrs: 3.00

29ANAH823
Advanced Acute Care Practicum III: Part 1
The practicum is the third in a series of three advanced acute care practica. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The clinical experiences focus on the selection and implementation of extant therapeutic nursing interventions, the design of newly required therapeutic interventions, and formulation of measurable outcome criteria related thereto. Collaboration as a peer on the multidisciplinary health care team is emphasized. The students implement the roles inherent in advanced nursing practice. Clinical experiences take place in mutually negotiated settings. Prereq: 29ANAH822. Coreq: 29ANAH820. Credit Level: G. Credit Hrs: 4.00

29ANAH824
Advanced Acute Care Practicum III: Part 2
The practicum is the continuation of Advanced Acute Care Practicum III, Part 1. Prereq: 29ANAH822. Coreq: 29ANAH820, 29ANAH823. Credit Level: G. Credit Hrs: 4.00

29ANAH825
Advanced Nursing Practice in Anesthesia I
Overview course that integrates physiology, applied physics and related mathematics. Topics include history, legal aspects, preoperative assessment, preinduction preparation, environmental safety, use of equipment, and anesthesia delivery systems. Credit Level: G. Credit Hrs: 7.00

29ANAH826
Advanced Nursing Practice in Anesthesia II
Focuses on the physiological effects of anesthetic agents on the health patterns of client systems. Emphasizes nursing interventions and formulation of measurable client system outcomes. Credit Level: G. Credit Hrs: 4.00

29ANAH827
Advanced Nursing Practice in Anesthesia III
Focuses on anesthesia interventions and outcomes for children and pregnant women. Emphasizes maternal physiology, neonatal care and resuscitation, management of obstetrical complications, and special needs of children undergoing anesthesia. Examines the properties of anesthetic, accessory, and therapeutic agents. Credit Level: G. Credit Hrs: 3.00
Advanced Nursing - Adult Health

29ANAH828
Advanced Nursing Practice in Anesthesia IV
Focuses on anesthesia interventions and outcomes for client systems requiring surgical intervention for complex alterations in health patterns. Addresses professional, management, financial, ethical and legal aspects of anesthesia nursing practice. Prereq: 29ANAH827. Credit Level: G. Credit Hrs: 4.00

29ANAH829
Advanced Pharmacology for Advanced Nursing Practice in Anesthesia
Discusses anesthetic and analgesic agents used in complex situations. Focuses on the pharmacodynamics, pharmacokinetics, structural activity relationships, effects, toxic/adverse reactions and associated treatments and pharmacotherapeutics. Credit Level: G. Credit Hrs: 3.00

29ANAH830
Advanced Nursing Practice in Anesthesia Practicum I
Focuses on preoperative evaluation of client systems prior to anesthesia administration, development of an anesthesia plan of care with focus on therapeutic nursing interventions and outcomes, and administration of anesthesia to selected client systems with altered health patterns. Credit Level: G. Credit Hrs: 3.00

29ANAH831
Advanced Nursing Practice in Anesthesia II
Provides for increasing responsibility for anesthesia interventions in the perioperative period. Focus is on routine surgical procedures, a variety of modalities, and non-complex alteration in client system health patterns. Credit Level: G. Credit Hrs: 9.00

29ANAH832
Advanced Nursing Practice in Anesthesia Practicum III
Continues development of the professional role with anesthesia interventions for client systems with varying health patterns that require surgery using general and regional anesthetic techniques. Credit Level: G. Credit Hrs: 11.00

29ANAH833
Advanced Nursing Practice in Anesthesia Practicum IV
Focuses on anesthesia interventions and evaluation of outcomes for children and pregnant women in community hospital settings. Opportunities for emergency call for client systems with unanticipated alterations in health patterns of an emergent nature. Prereq: 29ANAH832. Credit Level: G. Credit Hrs: 9.00

29ANAH834
Adult Ambulatory Care for Advanced Nursing Practice: Seminar I
This seminar is the first of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANAH813. Credit Level: G. Credit Hrs: 1.00

29ANAH835
Adult Ambulatory Care for Advanced Nursing Practice: Seminar II
This seminar is the second of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANAH814, 29ANAH815. Credit Level: G. Credit Hrs: 1.00

29ANAH836
Adult Ambulatory Care for Advanced Nursing Practice: Seminar III
This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANAH816, 29ANAH817. Credit Level: G. Credit Hrs: 1.00

Advanced Nursing - Adult Health

29ANAH836
Adult Ambulatory Care for Advanced Nursing Practice: Seminar III
didactic material to practice. Coreq: 29ANAH818, 29ANAH819. Credit Level: G. Credit Hrs: 1.00

29ANAH844
Independent Study in Nurse Anesthesia Practice
This course provides elective clinical practice opportunities for nurse anesthesia students. Credit Level: G. Credit Hrs: 1.00-5.00

29ANAH845
Independent Study in Nurse Anesthesia Practice
This course provides elective clinical practice opportunities for nurse anesthesia students. Credit Level: G. Credit Hrs: 1.00-5.00

29ANAH846
Advanced Nursing Practice in Anesthesia Clinical Internship I
Provides concentrated clinical experience in anesthesia interventions with a variety of clients in various perioperative environmental contexts. Emphasizes legal, ethical and financial considerations inherent in the advanced nursing practice role in anesthesia. Credit Level: G. Credit Hrs: 1.00

29ANAH847
Advanced Nursing Practice in Anesthesia Clinical Internship II
Provides continuing concentrated clinical experience in implementing anesthesia interventions and evaluating outcomes with implementation of research findings. Emphasizes interventions with clients experiencing complex alterations in health patterns in a variety of perioperative environmental contexts. Prereq: 29ANAH846. Credit Level: G. Credit Hrs: 1.00

29ANAH848
Advanced Nursing Practice in Anesthesia Clinical Internship III
Culminating concentrated clinical experience that provides opportunity to plan and select/design nursing interventions in anesthesia and evaluate outcomes in all phases of perioperative care. Emphasizes clients with a variety of altered, complex, and atypical health patterns. Prereq: 29ANAH847. Credit Level: G. Credit Hrs: 1.00

29ANAH849
Advanced Nursing Practice in Anesthesia Practicum V
Provides intensive clinical practice in anesthesia interventions. Clinical experiences in various specialties with clients with increasingly complex alterations in health patterns requiring more expertise in anesthesia management. Credit Level: G. Credit Hrs: 12.00

29ANAH858
Acute Care Seminar I
This seminar is the first of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANAH810. Credit Level: G. Credit Hrs: 1.00

29ANAH859
Acute Care Seminar II
This seminar is the second of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Prereq: 29ANAH858. Coreq: 29ANAH821, 29ANAH822. Credit Level: G. Credit Hrs: 1.00

29ANAH860
Acute Care Seminar III
This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Prereq: 29ANAH859. Coreq: 29ANAH823, 29ANAH824. Credit Level: G. Credit Hrs: 1.00

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29ANAH860 Acute Care Seminar III
This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Prereq: 29ANAH859. Coreq: 29ANAH823, 29ANAH824. Credit Level: G. Credit Hrs: 1.00

29ANAH861 Advanced Acute Care Nursing Internship I
The internship is the first of five sequential clinical courses in the Post-Master's Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. The students engage in beginning implementation of the roles inherent in practice as a nurse practitioner. Clinical experiences take place in various environmental contexts including acute and ambulatory care settings. Prereq: 29NURS811, 29NURS812. Coreq: 29NURS813, 29ANAH804, 29ANAH808. Credit Level: G. Credit Hrs: 1.00

29ANAH862 Advanced Acute Care Nursing Internship II
The internship is the second of five sequential clinical courses in the Post-Master's Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. The students engage in beginning implementation of the roles inherent in practice as a nurse practitioner. Clinical experiences take place in various environmental contexts including acute and ambulatory care settings. Coreq: 29ANAH801, 29ANAH803, 29ANAH807, 29ANAH861. Credit Level: G. Credit Hrs: 1.00

29ANAH863 Advanced Acute Care Nursing Internship III
The internship is the third of five sequential clinical courses in the Post-Master's Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria for both. The students engage in beginning implementation of the roles inherent in practice as a nurse practitioner. Clinical experiences take place in various environmental contexts including acute and ambulatory care settings. Coreq: 29ANAH801, 29ANAH803, 29ANAH807, 29ANAH862. Credit Level: G. Credit Hrs: 1.00

29ANAH864 Advanced Acute Care Nursing Internship IV
The internship is the fourth of five sequential clinical courses in the Post-Master's Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria related thereto. Collaboration as a peer on the multidisciplinary health care team is emphasized. Students implement the roles inherent in practice as a nurse practitioner. Clinical experiences take place in mutually negotiated settings. Coreq: 29ANAH863. Credit Level: G. Credit Hrs: 1.00

29ANAH865 Advanced Acute Care Nursing Internship V
The internship is the fifth of five sequential clinical courses in the Post-Master's Certificate Acute Care Nurse Practitioner Program. Students engage in comprehensive assessment, diagnosis and care planning activities for client systems with health pattern alterations. The focus of the clinical experiences is on the selection and implementation of extant therapeutic nursing interventions, the beginning design of newly required therapeutic interventions, and discernment of measurable outcome criteria related thereto. Collaboration as a peer on the multidisciplinary health care team is emphasized. Students implement the roles inherent in practice as a nurse practitioner. Clinical experiences take place in mutually negotiated settings. Coreq: 29ANAH864. Credit Level: G. Credit Hrs: 1.00

Advanced Nursing - Community Health

29ANCH501 Health Policy Topics (Gen Ed)
This elective course develops knowledge and skill to systematically identify and analyze health care literature pertinent to health policy formulation. The effects of health policy decisions on health care delivery, providers, and consumers are examined with emphasis on content. Health policy topics may vary with course offering. Approved for General Education credit. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

29ANCH800 Family Health Nursing: Theory and Counseling in the Health Patterns of Families.
Focuses on health patterns of families, structure, dynamics, culture and coping strategies in a variety of environmental contexts. Presents health promotion and illness prevention interventions and role in consultation and referral of families. Prereq: 29NURS800. Credit Level: G. Credit Hrs: 3.00

29ANCH801 Family Health Nursing: Therapeutic Interventions in the Health Patterns of Women and Children
Presents content for health promotion, health maintenance, differential diagnosis and management, and outcome evaluation of health pattern variations in women of childbearing age and of children. Emphasis is on specialized knowledge necessary to provide primary care, including consultation and referral. Credit Level: G. Credit Hrs: 4.00

29ANCH802 Family Health Nursing: Advanced Clinical Pharmacology
Focuses on safe selection of pharmacologic agents for the management of health pattern alterations of adults and children.

H=University Honors course.
Introduces student to foundational concepts of occupational health and safety, emphasizing the role of the occupational health nurse. Credit Level: G. Credit Hrs: 3.00

Managing Common Occupational and Environmental Diseases and Injuries
This course provides a foundation for understanding common occupational and environmental diseases and injuries. Concepts in epidemiology, pathophysiology, toxicology, and nursing will be used to assess workers and their work sites, and to plan interventions. Emphasis will be given to using the team approach to assess and manage occupational and environmental diseases and injuries. Credit Level: G. Credit Hrs: 3.00

Advance Practice in Occupational Health Nursing Practicum
Field experience with a worker population in an occupational setting to identify potential work related illnesses and injuries, strategies for prevention, implementation of strategies, and evaluation of outcomes. Prereq: 29ANCH811. Credit Level: G. Credit Hrs: 2.00

Managing Health and Safety Programs in the Workplace
This synthesis course focuses on the development, implementation, and evaluation of occupational and environmental health services and programs. Students apply their knowledge of occupational health diseases and injuries, program planning, health promotion, and health behavior theory to the workplace. Discussion focuses on common occupational and environmental health services and programs that use prevention and intervention strategies to reduce risk for workers. Emphasis will be given on using the multidisciplinary team to develop, implement, and evaluate health services and programs. Prereq: 29NURS806, 29NURS814, 29NURS811. Credit Level: G. Credit Hrs: 3.00

Practicum in Occupational Health Nursing
This course provides a field experience focused on developing occupational health nursing skills within a specific work setting. A service project is negotiated with a preceptor, completed, and presented at the completion of the course. A summary evaluation of the experience is presented to the professor and preceptor. Prereq: 29ANCH810. Credit Level: G. Credit Hrs: 3.00

Leadership in Occupational Health Practicum
The focus of this practicum is the assessment, management, and evaluation of a project related to occupational health and safety. Application of nursing theory and research within an occupational health setting or regulatory body will be emphasized, along with decision making, budgeting, human resources and health cost management. The need to use an interdisciplinary approach to meeting the health and safety needs of diverse worker populations within the culture of the organization will also be emphasized. Prereq: 29ANCH813. Credit Level: G. Credit Hrs: 5.00

Internship in Occupational Health Nursing
Concentrated field experience in selected areas of advance practice occupational health nursing. Credit Level: G. Credit Hrs: 5.00

 Practicum I: Information Systems
This practica course is designed to assist students in the development of skills in information technology required for the tracking of populations, management of services and evaluation of interventions. Credit Level: G. Credit Hrs: 2.00

Family Health Nursing Clinical Internship I
Internship for clinical nursing practice in family health nursing. Credit
Advanced Nursing - Community Health

29ANCH821
*Family Health Nursing Clinical Internship I*
Level: G. Credit Hrs: 2.00

29ANCH822
*Family Health Nursing Clinical Internship II*
Internship for clinical nursing practice in family health nursing. Credit Level: G. Credit Hrs: 2.00

29ANCH823
*Family Health Nursing Clinical Internship III*
Internship for clinical nursing practice in family health nursing. Credit Level: G. Credit Hrs: 2.00

29ANCH824
*The Care of Well Women and Children for Family Nursing Practice*
This course focuses on the care of well women and children across the lifespan. It prepares students to assume professional practice roles and responsibilities in health promotion, health maintenance and management of common health pattern variations pertaining to gynecological and primary care of well women and children. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29NURS820, 29NURS812. Credit Level: G. Credit Hrs: 3.00

29ANCH841
*Nursing Leadership - Targeting Population Needs*
During this practicum students will analyze aspects of organizations/communities relative to the patient/client populations they serve. Students will apply appropriate theories in evaluating the structure, organization, culture, climate, and other relevant aspects of their chosen organization or community. Emphasis is placed on the development and application of skills used in assessing organizational/community dynamics for related population groups in a variety of environmental and organizational contexts. Credit Level: G. Credit Hrs: 3.00-5.00

29ANCH842
*Family Nursing Seminar III*
This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Prereq: 29ANCH806. Coreq: 29ANCH807. Credit Level: G. Credit Hrs: 1.00

29ANCH851
*Epidemiology for Advanced Nursing Practice*
This course is designed to develop the graduate level nurse’s ability to apply epidemiology concepts to clinical practice when developing populations based programs or services. Emphasis is placed on the ability to analyze and critique epidemiologic studies related to clinical practice and population focused health planning and care. Credit Level: G. Credit Hrs: 3.00

29ANCH852
*Health Promotion and Risk Reduction*
This course is designed to assist students in developing skills and the ethical foundation necessary for assessing a population based on risk for disease and injury and to evaluate the health patterns of populations. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00-4.50

29ANCH853
*Community Health Practicum I: Interdisciplinary Health Planning*
Based on community/public health nursing practice models, students will collaborate with an interdisciplinary team to make programmatic recommendations based on analysis of community-focused population data. Prereq: 29ANCH851. Credit Level: G. Credit Hrs: 5.00

29ANCH854
*Foundations of Public Health Nursing*
This course provides the foundation for advanced practice as a public health nurse. The course helps the student build on core public health theory and functions to develop knowledge and skills within the scope and standards of the specialty. Credit Level: G. Credit Hrs: 3.00

29ANCH855
*Practicum II: Community Assessment*
During this practicum students will apply appropriate theories and frameworks to assess the health status and determinants of health for a community. Students will analyze data related to health trends and develop a community diagnosis that incorporates multiple determinants of health for the total community/selected populations. Credit Level: G. Credit Hrs: 3.00-7.00

29ANCH856
*Global Health*
This course is designed to assist the graduate student in the development of skills in trending population health data over time from a global perspective. These skills will assist the student in identifying emerging issues from the local to the global level related to the health patterns of populations. In addition the course is aimed at helping the student develop skills related to terrorism, natural disasters, environmental health concerns, emergent health conditions, and poverty. Credit Level: G. Credit Hrs: 3.00

29ANCH857
*Advanced Practice Community Health Nursing Seminar*
Based on community/public health nursing practice models students will evaluate the multiple strategies for intervention at the population level within a community grassroots framework and a public health/agency framework. Credit Level: G. Credit Hrs: 3.00

29ANCH859
*Practica III: Health Planning Implementation and Evaluation*
Students will develop a population-focused health program relevant to the promotion of health for an identified population/community and select an appropriate implementation and evaluation plan. Credit Level: G. Credit Hrs: 5.00

29ANCH860
*Practica IV: Public Health Nursing Leadership*
Students will investigate the role of the public health nurse as a leader in the promotion of the public’s health. The course will focus on public health policy, communication and management strategies as they pertain to the delivery of population-focused care. Credit Level: G. Credit Hrs: 3.00-7.00

29ANCH872
*Interdisciplinary Practicum I*
Opportunities are provided to interact with members of an interdisciplinary team for the purpose of team building to accomplish a commonly identified goal. Credit Level: G. Credit Hrs: 2.00

29ANCH879
*Community Health Internship*
Internship for clinical nursing practice in community health nursing. Credit Level: G. Credit Hrs: 2.00-10.00

29ANCH882
*Gerontological Nursing Clinical Internship*
Internship for clinical nursing practice in gerontological nursing. Credit Level: G. Credit Hrs: 1.00-5.00

Advanced Nursing - Nursing Administration
29ANNA837
*Nursing Service Administration Practicum I*
Opportunities to analyze the operational aspects of nursing service. Students apply nursing and management theories in evaluating the structure and processes used by nursing administration to achieve outcomes. Credit Level: G. Credit Hrs: 3.00
Advanced Nursing - Nursing Administration

29ANNA838 Nursing Service Administration Practicum II
Opportunities to analyze the professional roles of nurse administrators in management. Emphasizes analysis and use of resources to meet departmental and/or organizational goals within a variety of environmental contexts. Credit Level: G. Credit Hrs: 3.00

29ANNA839 Nursing Service Administration: Practicum III
Analyzes major policies, organizational situations, and strategic planning aspects of the nursing manager roles. Credit Level: G. Credit Hrs: 6.00

29ANNA886 Nursing Service Administration Seminar
Integrates theory and practice in professional nursing management roles with focus on transition into nursing management roles and utilization of administrative theory in practice. Credit Level: G. Credit Hrs: 3.00

29ANNA898 Strategic Concepts and Models in Nursing Service Administration
Provides an introduction to the key concepts and theoretical models of strategic management as applied to the health care industry. Emphasizes the role of the nurse executive in formation of strategy and of the nurse manager in the implementation process. Credit Level: G. Credit Hrs: 3.00

Advanced Nursing - Parent Child

29ANPC805 Advanced Women’s Health I
foundation for the women’s health care management process and the care of women across the lifespan. It prepares students to assume professional roles and responsibilities in the management of normal and common health pattern variations pertaining to gynecological care. There are at least 0.5 credits (5 clock hours) of pharmacology content. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29NURS820, 29NURS812. Coreq: 29ANPC812, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29ANPC806 Advanced Women’s Health Care Practicum I
This course is the first in a series of three sequential clinical courses in Women's Health Care. The student will engage in comprehensive assessment, diagnosis and management of women's health care across the lifespan. The student will assume a professional practice role and responsibility for management of normal and common health pattern variations pertaining to gynecological care. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29ANPC805. Credit Level: G. Credit Hrs: 4.00

29ANPC807 Women’s Health Nursing I Internship
Internship for clinical nursing practice in women's health nursing. Credit Level: G. Credit Hrs: 1.00-3.00

29ANPC808 Women’s Health Nursing II Internship
Internship for clinical nursing practice in women's health nursing. Credit Level: G. Credit Hrs: 1.00-3.00

29ANPC809 Primary Care of Episodic Illness for Women
This course provides students with the theoretical base to assess, diagnose, and manage the care of client systems across the lifespan with selected episodic health pattern alterations. Students will focus on the promotion, maintenance and restoration of client system's health patterns. Culturally competent, holistic, ethical, age and gender specific, and risk stratified care will be discussed. Nonpharmacologic aspects of care such as teaching and coaching will be addressed as well as the pharmacologic management designed to help clients achieve desired outcomes. Evidence-based practice will serve as the basis for care management. This course includes 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29ANPC810 Conceptual Framework for Nurse-Midwifery Practice
Introduces the professional role of the nurse midwife including the management process, the nursing process, utilization of paradigms of wellness and health, and communication pertinent to nurse midwifery practice. Credit Level: G. Credit Hrs: 3.00

29ANPC811 Primary Care for Women
(3 didactic and 1 lab with 30 contact hours/quarter). Prepares students to provide primary care for women utilizing critical thinking and decision-making skills. Prereq: 29ANPC810. Credit Level: G. Credit Hrs: 5.00

29ANPC812 Advanced Reproductive Dynamics
Explores the anatomical and physiological basis for advanced nursing practice in reproductive health care. Includes genetics and reproductive endocrinology in the adult female, male, fetus, and neonate. Examines normal and abnormal fetal development from the perspective of maternal and environmental influences. Prereq: 29NURS820. Credit Level: G. Credit Hrs: 3.00
Pharmacology for Nurse-Midwifery Practice/Women's Health Practice
Examine Nurse Midwifery/Women's Health pharmacologic management and therapeutic interventions to address health patterns in the student's focus area: midwifery or women's health. Prereq: 29NURS811, 29NURS813, 29ANPC812. Credit Level: G. Credit Hrs: 2.00

Nurse-Midwifery I
This course, the first in a series of four sequential courses, lays the foundation for the nurse-midwifery management process and the care of the well woman across the lifespan. It prepares students to assume professional roles and responsibilities in the management of normal and common health pattern variations pertaining to gynecological care. Emphasis is on family-centered, community-based health care for diverse client systems. Included are at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29ANPC890, 29NURS801, 29NURS820, 29NURS812. Credit Level: G. Credit Hrs: 3.00

Nurse-Midwifery Practicum I
This course is the first in a series of four sequential clinical courses in Nurse-midwifery. Students will engage in comprehensive assessment, diagnosis and nurse-midwifery management for well women across the lifespan and assume professional practice roles and responsibilities in managing common health pattern variations pertaining to gynecological care. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29ANPC802, 29ANPC890, 29NURS812, 29NURS801. Coreq: 29ANPC814. Credit Level: G. Credit Hrs: 5.00

Nurse-Midwifery II
This course, the second in a sequence of four, prepares students to assume professional roles in the care of normal antepartum women and those with health pattern variations with an at-risk pregnancy. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during pregnancy. Included are at least 0.5 (5 clock hours) of pharmacology content. Students use scholarly inquiry to further develop their practice knowledge. Research related to normal and at-risk client systems is applied. The course expands on the history of nurse-midwifery as it impacts on professional role issues. Prereq: 29ANPC814, 29ANPC815. Credit Level: G. Credit Hrs: 3.00

Nurse-Midwifery Practicum II
This course is the second in a series of four sequential clinical courses in nurse-midwifery. Students will engage in comprehensive assessment, diagnosis and nurse-midwifery management for childbearing women and assume professional practice roles and responsibilities in managing common health pattern variations pertaining to childbearing women during the antepartum period. Students will use scholarly inquiry to evaluate and apply evidence-based practice to further develop their practice. Emphasis is on family-centered community-based health care for diverse client systems. Professional practice role is further developed. Prereq: 29ANPC814, 29ANPC815. Coreq: 29ANPC816. Credit Level: G. Credit Hrs: 8.00

Women's Health in a Contemporary Global Society
The course is designed to present a global perspective of selected contemporary philosophical, psychological, and sociocultural issues and concepts associated with women's health. Variations in women's health conditions are discussed from a diagnostic, treatment, and intervention perspective. Credit Level: G. Credit Hrs: 3.00

Developmental Physiology of the Fetus/Newborn
The course is designed to provide the student with an in-depth understanding of developmental physiology of the fetus and neonate.

Pharmacology for Nurse-Midwifery Practice/Women's Health Practice
Examine Nurse Midwifery/Women's Health pharmacologic management and therapeutic interventions to address health patterns in the student’s focus area: midwifery or women's health. Prereq: 29NURS811, 29NURS813, 29ANPC812. Credit Level: G. Credit Hrs: 2.00

Nurse-Midwifery I
This course, the first in a series of four sequential courses, lays the foundation for the nurse-midwifery management process and the care of the well woman across the lifespan. It prepares students to assume professional roles and responsibilities in the management of normal and common health pattern variations pertaining to gynecological care. Emphasis is on family-centered, community-based health care for diverse client systems. Included are at least 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29ANPC890, 29NURS801, 29NURS820, 29NURS812. Credit Level: G. Credit Hrs: 3.00

Nurse-Midwifery Practicum I
This course is the first in a series of four sequential clinical courses in Nurse-midwifery. Students will engage in comprehensive assessment, diagnosis and nurse-midwifery management for well women across the lifespan and assume professional practice roles and responsibilities in managing common health pattern variations pertaining to gynecological care. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29ANPC802, 29ANPC890, 29NURS812, 29NURS801. Coreq: 29ANPC814. Credit Level: G. Credit Hrs: 5.00

Nurse-Midwifery II
This course, the second in a sequence of four, prepares students to assume professional roles in the care of normal antepartum women and those with health pattern variations with an at-risk pregnancy. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during pregnancy. Included are at least 0.5 (5 clock hours) of pharmacology content. Students use scholarly inquiry to further develop their practice knowledge. Research related to normal and at-risk client systems is applied. The course expands on the history of nurse-midwifery as it impacts on professional role issues. Prereq: 29ANPC814, 29ANPC815. Credit Level: G. Credit Hrs: 3.00

Nurse-Midwifery Practicum II
This course is the second in a series of four sequential clinical courses in nurse-midwifery. Students will engage in comprehensive assessment, diagnosis and nurse-midwifery management for childbearing women and assume professional practice roles and responsibilities in managing common health pattern variations pertaining to childbearing women during the antepartum period. Students will use scholarly inquiry to evaluate and apply evidence-based practice to further develop their practice. Emphasis is on family-centered community-based health care for diverse client systems. Professional practice role is further developed. Prereq: 29ANPC814, 29ANPC815. Coreq: 29ANPC816. Credit Level: G. Credit Hrs: 8.00

Women's Health in a Contemporary Global Society
The course is designed to present a global perspective of selected contemporary philosophical, psychological, and sociocultural issues and concepts associated with women's health. Variations in women's health conditions are discussed from a diagnostic, treatment, and intervention perspective. Credit Level: G. Credit Hrs: 3.00

Developmental Physiology of the Fetus/Newborn
The course is designed to provide the student with an in-depth understanding of developmental physiology of the fetus and neonate.
Advanced Nursing - Parent Child

29ANPC828  
Neonatal Pathophysiology and Advanced Nursing Management III: The Acutely Ill Newborn/Infant  
The course provides the student with the theoretical and practical knowledge needed for the role of the advanced practice neonatal nurse in the neonatal intensive care unit. Content will focus on the assessment, pathophysiology, and management of health problems of critically and chronically ill newborns/infants and their client systems.  
Credit Level: G. Credit Hrs: 3.00

29ANPC829  
Practicum II: Clinical Care of Pediatric Clients with Acute Illnesses  
This clinical practicum introduces the APN student to diagnosing and managing common acute pediatric illnesses of newborns, infants, children, adolescents, and young adults in primary care contexts. In this practicum students use diagnostic reasoning to accurately diagnose common illnesses, and integrate research and standards of care to plan and deliver appropriate family-based care. Prereq: 29ANPC835. Credit Level: G. Credit Hrs: 3.00-8.00

29ANPC830  
Practicum III: Clinical Care of Pediatric Clients with Chronic Illnesses  
This clinical practicum introduces the APN student to management of chronic conditions in health patterns for culturally diverse populations of infants, children, adolescents, and young adults in primary care contexts. In this practicum the students use diagnostic reasoning to accurately diagnose for chronic illnesses, and integrate research and standards of care to plan and deliver appropriate family-based care. Prereq: 29ANPC836. Credit Level: G. Credit Hrs: 3.00-6.00

29ANPC831  
Advanced Pediatric Pharmacology  
This course provides nurses preparing for roles in advanced pediatric nursing practice with knowledge of pharmacotherapeutics for common acute and chronic variations in health patterns of the pediatric population. Course content includes the clinical pharmacology of common drug categories encountered in advanced practice pediatric nursing. Pharmacokinetic and pharmacodynamic principles, their clinical application and the use of pharmacologic agents in the prevention of illness and the restoration and maintenance of health are discussed. The mechanism of action, pharmacologic response, usual dose, adverse effects, indications, interactions, contraindications, and routes of administration of medications are emphasized. Credit Level: G. Credit Hrs: 3.00

29ANPC832  
Well Women and Special Populations for Pediatrics  
This course prepares students to assume professional practice roles and responsibilities in providing care for well women across the lifespan but with special emphasis on the adolescent and young adult women. Contraception, emergency contraception, sexually transmitted infections, teen pregnancy, teen parenting, abortion, adoption, and adolescent and young adult sexuality are topics that will be discussed. Special pediatric populations will be a second focus of this course and will cover teen parents, children of teen parents, children in foster home care, children in alternative homes (group homes), homeless children and adolescents and incarcerated children and adolescents. Credit Level: G. Credit Hrs: 3.00

29ANPC834  
Pediatric Primary Care I: Advanced Pediatric Health Promotion and Assessment  
This course introduces the student to the advanced practice nursing role in health promotion and assessment and in the prevention of illness in a culturally diverse population of newborns, infants, children, adolescents, and young adults in primary care contexts. Credit Level: G. Credit Hrs: 4.00

Advanced Nursing - Parent Child

29ANPC835  
Pediatric Primary Care II: Care of Pediatric Clients with Acute Illnesses  
The focus of this course is to introduce the APN student to diagnosing and managing of common acute pediatric illnesses in newborns, infants, children, adolescents, and young adults in primary care contexts. Management of acute illnesses includes recognizing signs and symptoms of common illnesses, using diagnostic reasoning to accurately diagnose common illnesses, and integrating research and standards of care to plan and implement care. Credit Level: G. Credit Hrs: 4.00

29ANPC836  
Pediatric Primary Care III: Care of Pediatric Clients with Chronic Illnesses  
This course introduces the student to the advanced pediatric nursing practice role in the management of chronic conditions in health patterns for culturally diverse client systems form early pre/school-age to adolescence and early adulthood in multiple environmental contexts. Credit Level: G. Credit Hrs: 4.00

29ANPC837  
Practicum I: Advanced Pediatric Health Promotion and Assessment  
This clinical practicum introduces the student to the advanced practice nursing role in health promotion and assessment and in the prevention of illness in a culturally divers population of newborns, infants, children, adolescents, and young adults in primary care contexts. Prereq: 29ANPC834. Coreq.: Credit Level: G. Credit Hrs: 4.00

29ANPC839  
Primary Care of Episodic Illness for Women Practicum  
This course is part of a series of sequential clinical courses in Women's Health Care and prepares the student to provide primary care of episodic illnesses throughout the lifespan. Students will engage in comprehensive assessment, diagnosis and women's health care management for women across the lifespan and assume professional practice roles and responsibilities in managing common health pattern variations pertaining to gynecological and primary care. Emphasis is on family-centered, community-based health care for diverse client systems. Prereq: 29NURS812, 29ANPC802, 29ANPC890, 29NURS801. Coreq: 29ANPC809. Credit Level: G. Credit Hrs: 3.00

29ANPC840  
Advanced Women's Health II  
This course, the second in a sequence of two, prepares students to assume professional roles in the care of normal antepartum women and those with health pattern variations with an at-risk pregnancy. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during pregnancy. Included are at least 0.5 credits (5 clock hours) of pharmacology content. Students use scholarly inquiry to further develop their practice knowledge. Research related to normal and at-risk client systems is applied. Prereq: 29ANPC806, 29ANPC805. Coreq: 29ANPC841. Credit Level: G. Credit Hrs: 3.00

29ANPC841  
Advanced Women's Health Care Practicum II  
This course, the second in a series of three sequential clinical courses in women's health care, prepares the students to assume the professional practice roles in the care of normal antepartal women and those with health pattern variations with an at-risk pregnancy. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during pregnancy. Students use scholarly inquiry to further develop their practice. Evidence-based research as related to normal and at-risk client systems is applied. Prereq: 29ANPC806, 29ANPC805. Coreq: 29ANPC840. Credit Level: G. Credit Hrs: 8.00

29ANPC842  
Advanced Women's Health Care Practicum III  
This course, the third in a sequence of three, prepares the student for the fully integrated practice of women's health care to include primary care of episodic illnessness throughout the life span. The professional,
Pediatric Primary Care I: Advanced Pediatric Health Promotion and Assessment

This course introduces primary care concepts of the advanced nursing practice role in health promotion, assessment, and prevention for newborns, infants, children and adolescents from birth to 21 years of age. This course will prepare the student to recognize signs and symptoms of common pediatric illnesses and injuries, using diagnostic reasoning skills to accurately diagnose conditions based on evidence-based practice and research principles and to design treatment plans. Providing families of ill/injured children with education and support will be addressed. Discussions related to the plight of culturally diverse and/or vulnerable children and their families in relation to actual/potential health disparities are also included in this course. This course includes 0.5 credits (5 clock hours) of pharmacology content.

Pediatric Primary Care II: Pediatric Episode/Primary Care

This course provides students with a theoretical base to manage common, acute, and emergent health care concerns of newborns, infants, children and adolescents within the context of the primary care setting. This course introduces the Pediatric Nurse Practitioner student to advanced practice roles and responsibilities in the context of the primary care setting. This course will prepare the student to recognize signs and symptoms of common pediatric illnesses and injuries, using diagnostic reasoning skills to accurately diagnose conditions based on evidence-based practice and research principles and to design treatment plans. Providing families of ill/injured children with education and support will be addressed. Discussions related to the plight of culturally diverse and/or vulnerable children and their families in relation to actual/potential health disparities are also included in this course. This course includes 0.5 credits (5 clock hours) of pharmacology content.

Pediatric Primary Care III: Chronic Health Problems in the Pediatric Population

This course provides students with a theoretical base to manage chronic health concerns of newborns, infants, children and adolescents within the context of the primary care setting. This course introduces the Pediatric Nurse Practitioner student to advanced practice roles and responsibilities in assessing acute illness/injury and chronic illnesses of culturally diverse patients and families within the context of the primary care setting. This course provides students with a theoretical base to manage common, acute, and emergent health care concerns of newborns, infants, children and adolescents from birth to 21 years of age. This course will prepare the student to recognize signs and symptoms of common pediatric illnesses and injuries, using diagnostic reasoning skills to accurately diagnose conditions based on evidence-based practice and research principles and to design treatment plans. Providing families of ill/injured children with education and support will be addressed. Discussions related to the plight of culturally diverse and/or vulnerable children and their families in relation to actual/potential health disparities are also included in this course. This course includes 0.5 credits (5 clock hours) of pharmacology content.

Pediatric Primary Care IV: Child and Adolescent Mental Health Issues in the Primary Care Setting

This course introduces the Pediatric Nurse Practitioner student to mental health issues, risk and preventive factors, and management within the primary care setting. Approaches to effective mental health screening and assessment along with common screening tools for child and adolescent mental health disorders are discussed. The KySS Guide will be used to teach students to identify, manage, and prevent child and adolescent mental health disorders within a primary care practice context. Psychopharmacology appropriate to the primary care setting will be addressed. This course includes 0.5 credits (5 clock hours) of pharmacology content related to use of medications for mental health conditions in children and adolescents. Prereq: 29ANPC845, 29NURS808. Credit Level: G. Credit Hrs: 3.00

Pediatric Acute Care I

This course provides students with a theoretical base to manage acute and emergent health care concerns of pediatric patients within the context of the acute care setting. Students recognize and manage signs and symptoms of acute illnesses and injuries, using diagnostic reasoning skills to accurately diagnose conditions and to design treatment plans. Providing families of hospitalized ill/injured children with education and support and the plight of culturally diverse and/or vulnerable children and their families in relation to actual/potential health disparities is discussed. This course includes 0.5 credits (5 clock hours) of pharmacology content. Prereq: 29NURS813, 29NURS825, 29ANPC843. Credit Level: G. Credit Hrs: 3.00

Pediatric Acute Care II

This course provides students with a theoretical base to manage acute exacerbations of chronic health care concerns of pediatric patients within acute care settings. Students are prepared to recognize and manage acute episodes of chronic pediatric illnesses using diagnostic reasoning skills to accurately diagnose and design treatment plans. Education and support of families of chronically ill children will be addressed. The management of culturally diverse and/or vulnerable children and their families in relation to actual/potential health disparities is included in this course. This course includes 0.5 credits (5 clock hours) of pharmacology content related to chronic health conditions in the pediatric population. Prereq: 29ANPC844, 29ANPC845, 29ANPC852. Coreq: 29ANPC844, 29ANPC845. Credit Level: G. Credit Hrs: 2.00

Advanced Child Health Nursing Internship I

Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00
Advanced Nursing - Parent Child

29ANPC854
Advanced Child Health Nursing Internship I
Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC855
Advanced Child Health Nursing Internship II
Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC856
Advanced Child Health Nursing Internship III
Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC857
Advanced Child Health Nursing Internship IV
Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC858
Advanced Child Health Nursing Internship V
Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC859
Advanced Child Health Nursing Internship VI
Internship for clinical nursing practice in child health nursing. Credit Level: G. Credit Hrs: 1.00

29ANPC861
Nurse-Midwifery Internship I
This course, the first in a series of four sequential courses, lays the foundation for the nurse-midwifery management process and for women across the lifespan. It prepares students to assume professional practice roles and responsibilities in managing common health pattern variations pertaining to primary care, gynecological and antepartum care. Emphasis is on family-centered, community-based health care for diverse client systems. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

29ANPC862
Nurse-Midwifery Internship II
This course, the second in a sequence of four, prepares students to assume professional practice roles in the care of women with health pattern variations with an at-risk pregnancy and selected gynecologic problems. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during pregnancy, parturition. Students use scholarly inquiry to further develop their practice. Research related to at-risk client systems is applied. The course expands on the history of nurse-midwifery as it impacts on professional role issues. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

29ANPC863
Nurse-Midwifery Internship III
This course, the third in a sequence of four, prepares the student to assume professional roles and responsibilities in the care of normal intrapartal and postpartal women and those with common health pattern variations pertaining to at-risk women in parturition and post partum; normal and at-risk neonates. Included are at least 0.5 credits (5 clock hours) of pharmacology content. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during the parturition and postpartum period and the neonate. Research related to normal and at-risk client systems is applied. Prereq: 29ANPC816, 29ANPC817. Credit Level: G. Credit Hrs: 4.00

29ANPC864
Nurse-Midwifery Internship IV
This course, the last in a sequence of four, prepares the student for the fully integrated practice of nurse-midwifery. The social, political, legal, ethical, economic and financial factors that affect nurse-midwifery practice are analyzed. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

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29ANPC865
Pediatric Acute Care III: Pediatric Critical Care
This course provides students with a theoretical base to manage care of medically fragile pediatric patients in intensive care units, step down units, emergency departments, and surgical departments. The student is prepared to manage signs and symptoms of critically ill patients and to accurately diagnose rapid changes in health status. Critical clinical decision making is stressed in the design of treatment plans. The need to provide families of critically ill children with culturally appropriate education and support to facilitate the patient’s return to a state of wellness, relative wellness or a peaceful death, is addressed. This course includes 0.5 credits (5 clock hours) of pharmacology content related to the care of critically ill infants, children and adolescents. Prereq: 29ANPC845, 29ANPC853. Credit Level: G. Credit Hrs: 3.00

29ANPC866
Pediatric Acute Care Practicum I
This introductory clinical practicum introduces the student to the advanced practice nurse role and responsibility in caring for children and families from culturally diverse backgrounds within the context of ambulatory/specialty clinic and hospital settings. The clinical emphasis is on wellness and caring for acute/epidemic illnesses in children. Prereq: 29NURS855, 29NURS822, 29ANPC843, 29NURS825, 29ANPC886. Coreq: 29ANPC852, 29ANPC875. Credit Level: G. Credit Hrs: 6.00

29ANPC867
Nurse-Midwifery Practicum II
This course, the third in a sequence of four, prepares the student to assume professional roles and responsibilities in the care of normal intrapartal and postpartal women and those with common health pattern variations pertaining to at-risk women in parturition and postpartum; normal and at-risk neonates. Included are at least 0.5 credits (5 clock hours) of pharmacology content. Emphasis is placed on the collaborative management of interventions to achieve desired outcomes during the parturition and postpartum period and the neonate. Research related to normal and at-risk client systems is applied. Prereq: 29ANPC816, 29ANPC817. Credit Level: G. Credit Hrs: 4.00

29ANPC868
Nurse-Midwifery Practicum III
This course is the third in a series of four sequential clinical courses in Nurse-midwifery. Students will engage in comprehensive assessment, diagnosis and nurse-midwifery management for childbearing women and their neonates during the intrapartum and postpartum period. Students will continue to assume professional practice roles and responsibilities in managing common health pattern variations pertaining to childbearing women and their neonates during the intrapartum and postpartum period. Students will use scholarly inquiry to evaluate and apply evidence-based practice to further develop their practice. Emphasis is on family-centered, community-based health care for diverse client systems. Professional practice role is further developed. Prereq: 29ANPC814, 29ANPC815, 29ANPC816, 29ANPC817. Coreq: 29ANPC867. Credit Level: G. Credit Hrs: 9.00

29ANPC869
Pediatric Acute Care Practicum II
This intermediate clinical practicum introduces the student to advanced practice nurse roles and responsibilities in assessing and managing acute epidemic illnesses of chronically ill hospitalized newborns, infants, children and adolescents from culturally diverse families within the context of the acute care setting. Prereq: 29NURS824, 29ANPC843, 29ANPC852, 29ANPC866. Coreq: 29ANPC876, 29ANPC853. Credit Level: G. Credit Hrs: 7.00

29ANPC870
Pediatric Acute Care Practicum III
This culminating clinical practicum allows the student to perform holistically in advanced practice nurse roles and responsibilities with culturally diverse patients and families within the context of the critical care setting. Care of newborn, infants, children, and adolescents and their families will be in ICUs, Step Downs, Emergency Departments,
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29ANPC870
Pediatric Acute Care Practicum III
and/or Surgical areas. Prereq: 29ANPC845, 29ANPC853, 29ANPC869. Coreq: 29ANPC879, 29ANPC865. Credit Level: G. Credit Hrs: 7.00

29ANPC871
Clinical Practicum I: General Assessment of the Newborn Infant
This initial practicum focuses on health assessment and evaluation of diverse newborn/infants and their families in various clinical settings. Prereq: 29ANPC822. Coreq: 29ANPC821. Credit Level: G. Credit Hrs: 3.00

29ANPC872
Clinical Practicum II: General Management of the Newborn/Infant
The practicum focuses on the collaborative management of the diverse health patterns affecting the neonate/infant and their families. Emphasis is placed on development of the professional role and application of research findings to advanced nursing practice. Prereq: 29ANPC821, 29ANPC822, 29ANPC871, 29ANPC823. Credit Level: G. Credit Hrs: 5.00

29ANPC873
Clinical Practicum III: Neonatal Disease Process
The course is designed to provide students with an opportunity to develop clinical competency in the multifaceted aspects of the neonatal nurse practitioner role. The focus of this clinical practicum is the management, implementation, and evaluation of strategies related to specific disease processes affecting the newborn/infant client. The experience is accomplished in a Level III designated Neonatal Intensive Care Unit under the guidance of an approved preceptor (Neonatal Nurse Practitioner and/or board certified Neonatologist). Prereq: 29ANPC821, 29ANPC822, 29ANPC871, 29ANPC872, 29ANPC823. Credit Level: G. Credit Hrs: 6.00

29ANPC874
Clinical Practicum IV: Neonatal Disease Process
The course is designed to provide students with an opportunity to develop clinical competency in the multifaceted aspects of the neonatal nurse practitioner role. The focus of this clinical practicum is the management, implementation, and evaluation of strategies related to specific disease processes affecting the newborn/infant client. The experience is accomplished in a Level III designated Neonatal Intensive Care Unit under the guidance of an approved preceptor (Neonatal Nurse Practitioner and/or board certified Neonatologist). Prereq: 29ANPC821, 29ANPC822, 29ANPC871, 29ANPC872, 29ANPC823. Credit Level: G. Credit Hrs: 1.00-7.00

29ANPC875
Pediatric Acute Care Seminar I
This seminar is the first of three courses that prepares nurses for professional roles in advanced nursing practice for acutely ill pediatric patients. It is taken in conjunction with the clinical practicum and provides an opportunity to debrief and discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANPC866. Credit Level: G. Credit Hrs: 1.00

29ANPC876
Pediatric Acute Care Seminar II
This seminar is the second of three courses that prepares nurses for professional roles in advanced nursing practice with acutely ill pediatric patients. It is taken in conjunction with the clinical practicum and provides an opportunity to debrief and discuss clinical cases while demonstrating the ability to apply the didactic material to practice. Coreq: 29ANPC869. Credit Level: G. Credit Hrs: 1.00

29ANPC877
Nurse-Midwifery IV
This course, the fourth in a sequence of four, prepares the student for the fully integrated practice of nurse-midwifery. Included are at least 0.5 credits (5 clock hours) of pharmacology content. The professional, social, political, legal, ethical, economic and financial factors that affect nurse-midwifery practice are analyzed. Prereq: 29ANPC867, 29ANPC868. Credit Level: G. Credit Hrs: 2.00

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29ANPC877
Nurse-Midwifery IV
This course, the fourth in a sequence of four, prepares the student for the fully integrated practice of nurse-midwifery. Included are at least 0.5 credits (5 clock hours) of pharmacology content. The professional, social, political, legal, ethical, economic and financial factors that affect nurse-midwifery practice are analyzed. Prereq: 29ANPC867, 29ANPC868. Credit Level: G. Credit Hrs: 2.00

29ANPC878
Nurse-Midwifery Practicum IV
This course is the fourth in a series of four sequential clinical courses in Nurse-midwifery and prepares the student for fully integrated practice of Nurse-midwifery. Students will use scholarly inquiry to evaluate and apply evidence-based practice to further develop their practice. Emphasis is on family-centered, community-based health care for diverse client systems. Professional, historical, social, political, legal, ethical, economic factors that affect midwifery practice are analyzed. The student professional practice role as part of a multidisciplinary team is further developed. Prereq: 29ANPC814, 29ANPC815, 29ANPC816, 29ANPC817, 29ANPC867. Coreq: 29ANPC877. Credit Level: G. Credit Hrs: 9.00

29ANPC879
Pediatric Acute Care Seminar III
This seminar is the last of three courses that prepares nurses for professional roles in advanced nursing practice. It is taken in conjunction with the clinical practicum and provides an opportunity to debrief and discuss clinical cases while demonstrating the ability to apply didactic material to practice. Coreq: 29ANPC870. Credit Level: G. Credit Hrs: 1.00

29ANPC880
Advanced Pediatric Acute Care Nursing Internship I
Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC881
Advanced Pediatric Acute Care Nursing Internship II
Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC882
Advanced Pediatric Acute Care Nursing Internship III
Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC883
Advanced Pediatric Acute Care Nursing Internship IV
Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC884
Advanced Pediatric Acute Care Nursing Internship V
Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical
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29ANPC884
Advanced Pediatric Acute Care Nursing Internship V
competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC885
Advanced Pediatric Acute Care Nursing Internship VI
Internship for clinical nursing practice in child health nursing for preparation as a Pediatric Acute Care Nurse Practitioner. The course is designed to provide students with an opportunity to develop clinical competency in the pediatric acute care nurse practitioner role. The experience is accomplished under the guidance of a faculty approved preceptor. Credit Level: G. Credit Hrs: 1.00

29ANPC886
Special Topics in Acute Care Pediatric Care
This course provides in depth exploration of advanced therapeutic nursing interventions designed to promote, maintain, or restore the health of acutely ill newborns, infants, children and adolescents. The application of technology, informatics, and select therapies is explored relative to pediatric patients within the acute care environmental context. Students analyze the purpose, cost-benefits, selection criteria and outcomes for each therapeutic intervention. Selected symptoms common in acutely ill hospitalized pediatric patients are used as exemplars for the development of advanced therapeutic nursing interventions. Current theory and research related to the interventions are examined. Coreq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 3.00

29ANPC887
Nurse-Midwifery Practicum V
This course, the fifth in a sequence of five, prepares the student for the fully integrated practice of nurse-midwifery to include primary care of episodic illnesses throughout the lifespan. The professional, social, political, legal, ethical, economic and financial factors that affect nurse-midwifery practice are analyzed. Prereq: 29ANPC877, 29ANPC878. Credit Level: G. Credit Hrs: 7.00

29ANPC890
Advanced Reproductive Dynamics
This course explores the anatomical and physiological basis for advanced nursing practice in reproductive health care. Emphasis is on anatomy, physiology, and reproductive endocrinology in the adult female, male, fetus and neonate. Fetal development is examined from the perspective of maternal and environmental contexts. Credit Level: G. Credit Hrs: 4.00

29ANPC891
Advanced Women’s Health I
(3 didactic and 9 clinical with 270 clinical contact hours). Introduces the management process related to the primary care of women’s health across the lifespan and during the antenatal period. Roles and responsibilities in management of complications of pregnancy and parturition and in care of the normal neonate are addressed. Clinical experiences are precepted. Prereq: 29ANPC812, 29ANPC813. Credit Level: G. Credit Hrs: 12.00

29ANPC892
Advanced Women’s Health II
(2 didactic and 10 clinical with 300 clinical contact hours). Prepares the student to assume professional practice roles and responsibilities in managing the care of the woman with health pattern variations across the life span. Women’s health care legislation, health care management, and issues are explored. Clinical experiences are precepted. Prereq: 29ANPC805. Credit Level: G. Credit Hrs: 12.00

29ANPC893
Nurse Midwifery I
(3 didactic and 5 clinical). This course prepares students for nurse-midwifery management including therapeutic interventions and the nursing process for the primary care of women across the lifespan, including childbirth. Concepts of family, community, and health

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29ANPC893
Nurse Midwifery I
promotion are addressed. Credit Level: G. Credit Hrs: 8.00

29ANPC894
Nurse Midwifery II
(4 didactic and 8 clinical). This course prepares students to assume professional practice roles and responsibilities in managing complications of pregnancy and parturition and the care of the normal neonate. Professional role issues, the history of midwifery, need for use of scholarly inquiry by nurse-midwives to further their practice and practice context are discussed. Credit Level: G. Credit Hrs: 12.00

29ANPC895
Nurse Midwifery III
(3 didactic and 9 clinical). This course prepares the student to assume professional practice roles and responsibilities in the care of the woman with an at-risk pregnancy, the neonatal complications, and the woman with selected gynecologic problems. Credit Level: G. Credit Hrs: 12.00

29ANPC896
Nurse Midwifery IV
(2 didactic and 8 clinical). This course prepares the student for the fully integrated practice of nurse-midwifery. Maternal-child health care legislation, health care legislation, health care management, professional management of nurse-midwifery practice, advanced professional roles, use of scholarly inquiry, and issues are discussed. Credit Level: G. Credit Hrs: 10.00

Advanced Nursing - Psychiatric

29ANPS441
Care of Clients with Substance Use, Abuse, and Addictions
Nursing elective provides overview of theoretical and practical aspects of managing care of clients with substance abuse problems. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29ANPS801
Advanced Concepts in Forensic Nursing
The course builds the foundation for forensic studies related to nursing practice. Focuses on the legal issues experienced by forensic population. Factors related to epidemiology of violence, trauma, culture, poverty, and criminality are explored. Credit Level: G. Credit Hrs: 3.00

29ANPS820
Advanced Psychiatric Nursing I: Assessment and Diagnosis
Focuses on assessment and differential diagnosis of common chronic health pattern variations in clients with mental disorders in various psychiatric settings. Credit Level: G. Credit Hrs: 4.00

29ANPS821
Advanced Psychiatric Nursing II: Interventions for Health Pattern Variations with Psychiatric Client
Provides theoretical basis for advanced psychiatric nursing practice. Focuses on individual treatment modalities appropriate to a managed care environment, legal and ethical issues, and standards of practice. Credit Level: G. Credit Hrs: 4.00

29ANPS823
Substance Abuse and Advanced Psychiatric Nursing Practice
Focuses on theories, research, treatment approaches, and societal and political issues related to primary, secondary, and tertiary levels of prevention for substance abuse across the life span. Credit Level: G. Credit Hrs: 4.00

29ANPS831
Psychiatric Nursing Internship
This practicum provides the student with opportunities and supervision for clinical training in two psychotherapeutic modalities: Cognitive and Interpersonal Therapy. Emphasis is on establishing a Nurse Practitioner/client relationship and management of client care when using these treatment modalities. Credit Level: G. Credit Hrs: 2.00

H=University Honors course.
Advanced Nursing - Psychiatric

29NURS201
Success in College and Nursing I
This course is required for Pre-Nursing students. The purpose of the course is to introduce students to college life, the profession of nursing and to provide a sense of belonging to both. The course centers on academic skill development, personal success in the University and making a connection between general education and nursing. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS202
Introduction to Professional Nursing
Students are introduced to the underlying values and concepts of nursing as a profession. Hallmark events, integral to the evolution of nursing as a profession are discussed. Nurse-client relationships and the role of the nurse as a member of an interdisciplinary health care team are emphasized. The nursing process as a methodology of care, the basic ethical principles and legal aspects relevant to care, the systems of health care delivery and the importance of evidence-based practice are addressed. The power of communication and leadership techniques is experienced throughout the course. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS203
Foundations of Nursing Practice I
Students are introduced to the concepts, content, behaviors, and procedures that provide the foundation for nursing practice. The focus of the content is the use of assessment techniques relevant to specific nursing procedures, performance of basic nursing procedures, application of critical thinking, and the use of communication methods.

Nutrition

29NURS200
Nutrition For Health
This introductory nutrition course focuses on the relationship between nutrition and the promotion of health and prevention of disease. The course content introduces nutrients (both macronutrients and micronutrients) and their common dietary sources, daily requirements, and clinical deficiencies/excesses. The concept of energy balance and its effect on overnutrition and undernutrition will be discussed. The content also addresses the relationship between nutrient requirements and physiological needs across the entire life span, from prenatal nutrition through geriatric nutrition. Types of individuals, populations, or communities at risk for dietary imbalances as a result of genetic, environmental, or socio-cultural influences will be discussed. The content includes information related to legal/ethical guidelines when appropriate. Emphasis will be placed on how to critically evaluate both popular and professional literature related to healthcare. The principles of nutrition discussed will be applicable to the role of the nurse in promotion of health and the management of patients' nutritional needs. Prereq: 15Biol203, 15CHEM106. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS201
Nutrition and Disease
Course content explores the basic mechanisms of drug action, indications and contraindications of drug therapy, and the therapeutic effects as well as toxic and expected side effects of various medications. The nursing implications related to pharmacotherapies with clients across the life span are stressed. Legal and ethical issues related to medication administration and skills for calculating drug dosages are presented. Prereq: 29Nurs270. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS202
Psychopharmacology for Nurses in Advanced Practice
Provides nurses in advanced practice with an understanding of the effects of psychotropic drugs and their relationship with other treatment modalities. Credit Level: G. Credit Hrs: 2.00

Nursing Ethics and Law

29NURS204
Nursing Health Assessment
This course focuses on attaining the skills necessary for astute observation, purposeful inquiry and investigation, and outcomes based on nursing judgments. Students are introduced to the nursing process, health history taking, diagnostic study interpretation, physical examination skills and environmental evaluation for client systems across the life span. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS205
Pharmacology
Course content explores the basic mechanisms of drug action, indications and contraindications of drug therapy, and the therapeutic effects as well as toxic and expected side effects of various medications. The nursing implications related to pharmacotherapies with clients across the life span are stressed. Legal and ethical issues related to medication administration and skills for calculating drug dosages are presented. Prereq: 29Nurs270. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS206
Psychopathology
Course discusses the physiological variations in health patterns based on examination of biological processes that affect the dynamic equilibrium (homeostasis) of the human body. A conceptual approach is

H=University Honors course. 
Nursing

29NURS270 Pathophysiology
used to integrate knowledge from the natural sciences. Applications to the professional role of practitioner are identified. BoK: NS. Credit Level: U. Credit Hrs: 4.00

29NURS271 Honors Guided Study
Individualized study for honors recognition. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

29NURS300 Concepts of Community
Course content emphasizes the concept of community focused nursing practice and the relationship among individuals, families, and communities across the life span. Critical attributes and characteristics of various communities are examined. Selected models and theories are used for identifying and responding to culturally diverse client systems. Health policy, politics, and research are emphasized as the context for community health advocacy and the role of the professional nurse. Prereq: 29NURS203. BoK: DC, SS. Credit Level: U. Credit Hrs: 3.00

29NURS301 Introduction to Genetics for Professional Nursing Practice
Course content includes a foundational overview of the current state of genomics science and Human Genome Project. Basic genetic concepts about human chromosomes, karyotype, mitosis, meiosis, DNA, genotype, phenotype, Mendelian inheritance, mitochondrial and chromosomal aberrations and complex disorders will be reviewed. The student will be updated on emerging genetics content areas. An introduction to the top ten causes of mortalities and morbidities with genomic influences across the life span will be discussed. Family pedigree construction and analysis, dysmorphology and physical genetics assessment will be addressed. Financial, ethical, legal, and cultural implications of genetics testing and research will be highlighted. The roles of genetics specialists in interdisciplinary practice will be introduced. Prereq: 29NURS270. BoK: NA. Credit Level: U. Credit Hrs: 2.00-3.00

29NURS303 Nursing Care of Adults
The content in this course follows and builds upon the introductory nursing courses Foundations I and II. Emphasis is on promoting and restoring health of adults with common health concerns and related physiologic and psychologic responses. Nursing process related to alterations in health patterns is explored. Content also includes appropriate information on genetics, cultural diversity, ethics, legal principles, and life span issues specifically related to adults. Clinical experiences facilitate the utilization of this knowledge. Scholarly inquiry is used to evaluate nursing interventions in a variety of environmental and biopsychosocial contexts. Prereq: 29NURS203, 29NURS204, 29NURS205. BoK: NA. Credit Level: U. Credit Hrs: 9.00

29NURS304 Gerontological Nursing Practice
This course will focus on essential content necessary to provide quality care for older adults. Content will include best nursing practices in care of the healthy and ill older adult and the role of the professional nurse. Prereq: 29NURS203. BoK: SS. Credit Level: U. Credit Hrs: 3.00

29NURS305 Continuum of Care for Children and Families
This course provides didactic and clinical experiences that focus on health patterns as a basis for nursing practice appropriate for children and families throughout their continuum of care. The concepts of health including promotion, maintenance, rehabilitation and palliation are incorporated into the nursing process. Content will also include information on age appropriate lifespan concerns, genetics, cultural diversity, legal, ethical and end of life issues. Clinical experience in acute care and community settings will facilitate the use of this knowledge. Scholarly inquiry and information technology will be utilized to examine professional nursing practice in a variety of environmental and biopsychosocial contexts. Prereq: 29NURS300, 29NURS303. BoK: NA. Credit Level: U. Credit Hrs: 9.00

29NURS306 Continuum of Care for Childbearing Families
This course provides didactic content and clinical experiences that focus on health pattern alterations as a basis for nursing practice appropriate for persons experiencing mental illness and their families throughout the continuum of care. The concepts of health including promotion, health maintenance, and rehabilitation/restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Content will also include information on genetics, cultural diversity, legal and ethical issues, and related end-of-life issues. Clinical experiences in a variety of acute care and community-based settings will provide opportunities to apply the nursing process to low risk and at-risk pregnant women across the spectrum of reproductive health care. Prereq: 29NURS303, 29NURS300. BoK: NA. Credit Level: U. Credit Hrs: 9.00

29NURS307 Continuum of Mental Health Care
This course provides didactic and clinical experiences that focus on health pattern alterations as a basis for nursing practice appropriate for persons experiencing mental illness and their families throughout the continuum of care. The concepts of health including promotion, health maintenance, and rehabilitation/restoration are incorporated into discussion of the nursing process and the role of the professional nurse in the classroom and clinical settings. Content will also include information on age-appropriate lifespan concerns which include genetics, cultural diversity, legal and ethical issues, and related end-of-life issues. Scholarly inquiry and information technology will be applied to examine professional nursing practice in a variety of environmental and biopsychosocial contexts. Prereq: 29NURS300, 29NURS303. Coreq.: BoK: NA. Credit Level: U. Credit Hrs: 9.00

29NURS308 Nuclear Theory and Research
The course introduces the student to nursing theory and research as a form of scholarly inquiry. Content includes the evolution of nursing theory and research, the components of theory, the research process, and the cyclical nature of practice, theory, and research. Nursing practice that utilizes research findings as a basis for nursing practice is a form of scholarly inquiry. Content includes the evolution of nursing theory and research, the components of theory, the research process, and the cyclical nature of practice, theory, and research. Nursing practice that utilizes research findings as a basis for nursing practice is emphasized. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS310 Independent Study for Registered Nurses
This course provides opportunity for individual study in nursing for registered nurse students. BoK: NA. Credit Level: U. Credit Hrs: 6.00-12.00

29NURS373 Health Care Ethics
This interdisciplinary course considers ethical theories and principles applicable to nursing, pharmacology, and allied health professions. Using scholarly inquiry, students will analyze ethical issues across the lifespan in diverse socioeconomic and cultural situations. Nursing students take an additional credit hour covering legal aspects of nursing practice. BoK: SE. Credit Level: U. Credit Hrs: 2.00-3.00

29NURS396 ROTC Nursing
Seminar and clinical practice opportunities offered as a part of ROTC Nursing. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS401 Contemporary Adult Ambulatory Care
The course is a practicum designed to introduce students to the role of the professional nurse in the ambulatory care setting. Emphasis is on further development of professional nursing skills and the use of the nursing process, particularly assessment, decision making, and
Nursing

29NURS401
Contemporary Adult Ambulatory Care
信用学分: 7.00

Clinical experiences in a variety of ambulatory care settings enable students to develop essential skills for providing accessible, continuous, collaborative, affordable, and personalized care. Students gain experience in independent and interdisciplinary decision making with nurse preceptors and other health team members. Prereq: 29NURS305, 29NURS306, 29NURS307. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS403
Nurse as Professional Leader
信用学分: 3.00

The course content focuses on the knowledge and skills essential to effective nursing leadership. Emphasis will be placed on strategies that facilitate professional practice of self and others as members of the health care organization. Prereq: 29NURS207, 29NURS305, 29NURS306, 29NURS307. BoK: SE. Credit Level: U. Credit Hrs: 3.00

29NURS407
Senior Capstone
信用学分: 10.00-13.00

This project is the capstone experience for the nursing major. The project is an opportunity to integrate all course work in the program. The student completes a project to demonstrate the role of the professional nurse in relation to responsibility for health in a selected environmental context within a global society. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS410
Nursing Care of Adults with Complex Health Concerns
信用学分: 3.00

This course content focuses on the synthesis of health patterns of client systems that are in acute care environments. Emphasis is on the use of the nursing process to provide illness and rehabilitation/restoration care to client systems experiencing complex multi-system health pattern variations. Content will also include appropriate information on genetics and cultural diversity and life span, and end of life issues specific to the client experiencing complex health care concerns. Clinical experience in acute care settings will facilitate the utilization of this knowledge and the transition from student to professional nurse as the student manages the care of diverse client systems. Scholarly inquiry will be used to evaluate nursing interventions. Prereq: 29NURS305, 29NURS306, 29NURS307, 29NURS401. BoK: NA. Credit Level: U. Credit Hrs: 10.00-13.00

29NURS411
Professional Leader as Manager
信用学分: 3.00

This course content introduces the managing role of the leader within varied nurse practice settings. Managerial concepts and leadership skills needed to promote high quality outcomes-based nursing care delivery are examined. The role of the professional nurse as manager is explored in relationship to the delivery of health care. Prereq: 29NURS403. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS414
Dysrhythmia Interpretation
信用学分: 3.00

This course is designed to equip the learner with the ability to recognize and understand appropriate responses to major dysrhythmias that frequently occur in clinical practice. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS415
Community as Partner
信用学分: 2.00

This course is designed to facilitate student transition to the role of the professional nurse in the community. Students have opportunities to design and implement population-based interventions to promote the health of communities. Students use models and strategies for population-based health promotion and risk reduction across the life span including end of life care. Prereq: 29NURS305, 29NURS306, 29NURS307, 29NURS308, 29NURS300. BoK: NA. Credit Level: U. Credit Hrs: 7.00
Nursing

29NURS463
RN-Introduction to Genetics for Professional Nursing Practice
Implications of genetics testing and research are highlighted. The roles of genetics specialists in interdisciplinary practice are introduced.
Prereq: 29NURS457. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS464
RN-Gerontological Nursing Practice
This course content focuses on essential content necessary to provide quality care for older adults. Content includes best nursing practices in care of the healthy and ill older adult and the role of the professional nurse.
Prereq: 29NURS457. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS465
RN-Community as Partner
This course is designed to facilitate student transition to the role of the professional nurse in the community. Students have opportunities to design community focused interventions to promote the health of selected communities. Students use models and strategies for community focused health promotion and risk reduction across the life span including end of life care.
Prereq: 29NURS457, 29NURS462. BoK: NA. Credit Level: U. Credit Hrs: 2.00

29NURS466
RN-Community as Partner-Practicum
This course is designed to facilitate student transition to the role of the professional nurse in the community. Students have opportunities to design and implement community focused interventions to promote the health of select communities. Students use models and strategies for community focused health promotion & risk reduction across the life span including end of life care.
Prereq: 29NURS465, 29NURS462. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS468
RN-Nurse as Professional Leader and Manager
Course content focuses on the knowledge and skills essential to effective nursing leadership and introduces the managing role of the leader within varied nurse practice settings. Managerial concepts and leadership skills needed to promote high quality outcomes-based nursing care delivery are examined. Emphasis will be placed on strategies that facilitate professional practice of self and others as members of the health care organization.
Prereq: 29NURS457. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS469
RN-Senior Capstone
This course is the capstone experience for the nursing major. RN students have the opportunity to synthesize and integrate materials presented throughout the major courses through completion of a project related to nursing and health care.
BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS470
RN Nursing Elective
This course provides students with an opportunity to fulfill requirements for a nursing elective by building on prior educational, professional, or work experiences. Students work individually with faculty in the design of course objectives and an evaluation plan that allows the student to demonstrate how current and/or past experiences contribute to the meeting of one or more objectives of the undergraduate program.
Faculty approval of learning objectives and activities is required. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS472
Advanced Concepts in Professional Nursing
This course provides students with learning opportunities to acquire knowledge and skills fundamental to professional nursing roles. Leadership and management concepts and skills are examined and promote high quality evidence-based nursing care delivery. Emphasis is placed on strategies that facilitate professional "use of self" and others as members of the health care organization.
BoK: NA. Credit Level: U. Credit Hrs: 4.00

Nursing

29NURS474
Community Concepts and Contexts
This course is focused on applying the concepts of community/public health nursing to populations within the context of their community. Knowledge and skills needed to develop partnerships with communities are emphasized as an integral part of developing culturally appropriate strategies for the prevention of disease and the promotion of health.
Prereq: 29NURS472. BoK: NA. Credit Level: U. Credit Hrs: 4.00

29NURS475
LINK Capstone
This course is the capstone experience for the RN LINK program. Students demonstrate their achievement of the Baccalaureate Competencies of critical thinking, effective communication, knowledge integration and social responsibility through a process of self-reflection and evaluation.
Prereq: 29NURS472, 29NURS474. BoK: NA. Credit Level: U. Credit Hrs: 1.00

29NURS483
Leader as Clinical Mentor
The course content focuses on leadership and coaching knowledge and skills essential to effective clinical mentoring. Emphasis is placed on demonstration of effective leadership and and communication strategies to facilitate senior level student leadership/coaching of sophomore student peers.
Prereq: 29NURS403, 29NURS207, 29NURS305, 29NURS306, 29NURS307. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS485
Evidence-Based Practice for Clinical Decision-Making
This course is designed to build on the basic research concepts. This course focuses on the development of knowledge and skills for locating and critically appraising sources of evidence and clinical practice guidelines (CPG) and change processes to ensure the use of best evidence for the management of diverse patients and populations.
Prereq: 29NURS308. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS486
Family Impact on Treatment
The focus of this course is to prepare the nurse working in the health care setting to better handle issues related to patients and their family support systems. Students will engage in discussions centered on vignettes relative to both inpatient and clinic settings as well as practice critical thinking and creativity in solving common interpersonal problems.
BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS487
Health Issues of Vulnerable and Marginalized Populations
In this course, students will have the opportunity to examine the interplay between vulnerability, health status, and health care access and quality. Physical, psychological, demographic, environmental, socioeconomic, and cultural issues influencing the health status of and health care delivery to vulnerable populations are examined.
BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS492
International Health Care
The clinical experiences in this course provide learning opportunities in a variety of global settings. With diverse experiences in community and/or acute care settings, the student will have the opportunity to understand the interplay of culture, education, nutrition, and political climate on health and illness. Perm of Instructor. BoK: DC. Credit Level: U. Credit Hrs: 2.00-4.00

29NURS493
International Health
Seminars on factors influencing health status and delivery of health care in selected countries of the world, with a primary focus on those of developing nations.
BoK: DC. Credit Level: U. Credit Hrs: 3.00

29NURS494
Spanish for Health Professionals
This course introduces students in the health care professions to the values, beliefs, practices, and language of the Hispanic culture.
Nursing

29NURS494
Spanish for Health Professionals
Students learn the language skills necessary to facilitate basic communications for Spanish speaking people in the health care setting. BoK: HU, DC. Credit Level: U. Credit Hrs: 3.00

29NURS501
Patient Education in Health and Illness
This course will enable students to develop educational competencies needed to influence patient behavior, increase health promotion knowledge, promote positive attitudes, and to develop skills necessary to maintain or improve their health. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS558
Substance Abuse: Current Trends in Prevention and Treatment
The course focuses on primary, secondary, and tertiary levels of prevention related to substance abuse across the life span. Students examine the relationship between substance abuse and mental illness. Current trends in prevention and treatment approaches, research findings, and societal and political issues that influence prevention and treatment of substance abuse are explored. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS571
Independent Study
Prereq.: Availability of and agreement with a faculty member to supervise the study; a 2.5 overall grade point average. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

29NURS572
Independent Study
See 29NURS571. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

29NURS573
Independent Study
See 29NURS571. BoK: NA. Credit Level: U. Credit Hrs: 1.00-4.00

29NURS576
Clinical Elective
Provides elective clinical practice learning opportunities in a selected area of nursing practice. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-5.00

29NURS577
Refuting the Myths of Pain Management
This course focuses on traditional and non-traditional nursing interventions for the management of the human experience of pain. Current theories of pain and pain management will be discussed in the context of acute, chronic, and cancer pain. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

29NURS578
Clinical Decision-Making in Critical Care Nursing
The purpose of this course is to prepare nurses with the critical thinking skills to care for critically ill adult patients. The course will build on previously learned knowledge of critical care conditions and allow practice in clinical decision-making through a process of unfolding case studies. There will also be an emphasis on the use of scientific evidence in the clinical decision-making. This course is appropriate as an update for practicing critical care nurses and may serve as a critical care certification review. Prereq: 29NURS270, 29NURS5410, 29NURS5414. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS581
School Children with Special Health Needs
The impact of chronic conditions and illness on the school age child, family, and school. Discusses the legal aspects of educating handicapped children, mental retardation, chronic illnesses, childhood cancer, AIDS, childhood and adolescent depression and suicide, eating disorders, and children with parents who have drinking problems. Course designed for school and community health nurses, school professionals, and students interested in community health. BoK: NA. Credit Level: U. Credit Hrs: 3.00

29NURS585
School Children with Special Health Needs
Level: U, G. Credit Hrs: 3.00

29NURS588
Positioning for the Future: Internship in Area of Concentration
This course focuses on application of the knowledge and skills essential for nursing practice in specific health care setting(s) with selected client systems. Transitioning of RNs in the changing health care system is facilitated with emphasis on critical thinking, priority setting, and integration of theory into clinical practice. Supervised clinical practice is required. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00-10.00

29NURS600
Applied Nutrition for Health Professionals
Introduces health professions students to information about the essential nutrients and their relationship to health and disease. Includes discussion of nutrient requirements throughout the lifecycle, nutrition assessment, weight control, malnutrition, eating disorders, and over-the-counter dietary supplements. Theories associated with behavior change will be discussed throughout the course. Prereq: 17BIOL203. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS601
Case Studies In Interdisciplinary Health Care
An interdisciplinary course designed to provide hands-on experience in the concepts and rationale for interdisciplinary care. Emphasis is placed on the essential need for interdisciplinary care and effective communication among the disciplines. The interrelated components of interdisciplinary care are applied within the learning exercises. The exercises are selected to illustrate the forces of change within the health care system and strategies to affect interdisciplinary health care in the future. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS602
Nursing and the Humanities
The course examines the voices within poetry, short fiction, pathography, film and drama to explore the patient's experience of illness. The patient is viewed from the perspective of the individual as revealed by selected works from the humanities. In addition to the study of the patient's "voice", the course will also examine the image of the nurse as portrayed in the selected works and works in the humanities written by nurses. The course includes works that explore health and illness across the life span as well as works with a multi-cultural focus. BoK: HU. Credit Level: U, G. Credit Hrs: 3.00

29NURS603
Evidence-Based Practice for Clinical Decision-Making
This course is designed to build on the research concepts developed in the undergraduate program. The senior undergraduate student or graduate student will develop knowledge and skills for locating and critically appraising sources of evidence and evidence-based clinical practice guidelines (CPG) and use of best evidence for the management of diverse patients and populations. Prereq: 29NURS308. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS604
Palliative Care of the Client and Family
This course will focus on care of the client and family with a life-limiting disease and will provide the student the opportunity to experience interaction with nurse professionals working in the palliative care area, increase knowledge of palliative care models, and enhance understanding of priorities of care. Prereq: 29NURS303. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

29NURS700
Accelerated-Nursing Assessment
Focus is on attaining the skills necessary for astute observation, purposeful inquiry and data interpretation based on nursing knowledge. Emphasis is placed on the nursing process, health history taking, diagnostic study interpretation, physical examination skills, and environmental evaluation. Credit Level: G. Credit Hrs: 4.00

H=University Honors course.
Nursing

29NURS701
Accelerated-Concepts of Community Health Nursing
Course content emphasizes the concept of community focused nursing practice and the relationships among individuals, families, and communities across the life span. Critical attributes and characteristics of various communities are examined. Selected models and theories are used to identify health patterns of culturally diverse client systems. Health policy, politics, and research are emphasized as the context for community health advocacy. The course also examines methods to identify target populations for interventions designed to enhance the health of the community. Strategies for risk reduction and models for health education and health promotion will be discussed. The professional roles of the nurse are examined in the context of community health nursing. Coreq: 29NURS703. Credit Level: G. Credit Hrs: 3.00

29NURS702
Accelerated-Nursing Interventions
Accelerated Pathway students identify health patterns of client systems and select the use of therapeutic nursing interventions for the promotion, maintenance, and restoration of health patterns for diverse client systems in a variety of environmental contexts. The practicum component provides opportunity for nursing practice skill attainment. Prereq: 29NURS700. Credit Level: G. Credit Hrs: 6.00

29NURS703
Accelerated-Socialization to Professional Nursing
This course addresses societal influences on the development of the nursing profession. Professional guidelines, law and contemporary ethical concerns in health care are examined. Credit Level: G. Credit Hrs: 2.00

29NURS704
Health Patterns A Childbearing Accelerated
This course focuses on health pattern alterations as a basis for nursing interventions appropriate for childbearing families. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Scholarly inquiry will be used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Clinical experiences offer the student the opportunities to provide therapeutic nursing interventions to childbearing families in various environmental contexts. The student will apply the nursing process to childbearing families with variations in health patterns. Scholarly inquiry is used to evaluate nursing interventions in a variety of environmental and biological contexts. Prereq: 29NURS700, 29NURS702. Coreq: 29NURS701, 29NURS719, 29NURS707. Credit Level: G. Credit Hrs: 5.00

29NURS707
Health Patterns A Children and Families Accelerated
This course focuses on health pattern alterations as a basis for nursing interventions appropriate for children and families. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Scholarly inquiry will be used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Clinical experiences offer the student the opportunities to provide therapeutic nursing interventions to children and families with variations in health patterns. Scholarly inquiry is used to evaluate nursing interventions in a variety of environmental and biological contexts. Prereq: 29NURS700, 29NURS702. Coreq: 29NURS701, 29NURS719, 29NURS704. Credit Level: G. Credit Hrs: 6.00

29NURS711
Accelerated Community as Partner
The course is designed to facilitate student transition to the role of the professional nurse in the community. Students have opportunities to design and implement population-based interventions to promote the health of communities. Students use models and strategies for population based health promotion and risk reduction across the life span including end of life care. Prereq: 29NURS701. Credit Level: G. Credit Hrs: 4.00

29NURS712
Leadership and Management in Professional Nursing
The course focuses on management and leadership roles in various health care organizations. The course emphasizes integration of management and leadership skills to promote high quality patient outcomes through facilitation of high quality professional practice in the delivery of health care. Prereq: 29NURS708, 29NURS709. Credit Level: G. Credit Hrs: 2.00

29NURS714
Health Pattern Synthesis/Integration-Accelerated
This seminar provides students with the opportunity to work in small groups to synthesize the complex health pattern variations of client systems in an acute care environment. Emphasis is placed on evaluating outcomes of therapeutic nursing interventions of diverse client systems. Offered for Accelerated Pathway students. Coreq: 29NURS715, 29NURS724. Credit Level: G. Credit Hrs: 3.00

29NURS715
Practicum: Transition to Professional Practice in an Acute Care Environment-Accelerated
This practicum facilitates transition from student to professional nurse in the acute care environment. A variety of experiences provide the student opportunity to develop independence as care is managed for diverse client systems experiencing complex health pattern variations. Offered for Accelerated Pathway students. Credit Level: G. Credit Hrs: 5.00

29NURS716
Accelerated Health Patterns B: Adult
This course focuses on health pattern alterations as the basis for nursing interventions appropriate for adult client systems. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Scholarly inquiry will be used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Clinical experiences facilitate the utilization of this knowledge in the provision of holistic care. Prereq: 29NURS700, 29NURS702, 29NURS704, 29NURS707. Credit Level: G. Credit Hrs: 6.00

29NURS717
Accelerated Health Patterns B: Psychiatric Mental Health
This course focuses on health pattern alterations as the basis for nursing interventions appropriate for psychiatric client systems. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse and practical clinical experiences. Scholarly inquiry is used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Credit Level: G. Credit Hrs: 6.00

29NURS718
Accelerated Health Pattern Integration/Synthesis
This course focuses on integration and synthesis of health pattern alterations as the basis for nursing interventions appropriate for adult client systems. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussions of the nursing process and the role of the professional nurse. Scholarly inquiry is used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Clinical experiences facilitate the utilization of this knowledge. Prereq: 29NURS716, 29NURS717, 29NURS711. Credit Level: G. Credit Hrs: 14.00

29NURS720
Health Patterns B Accelerated Practicum: Adult
This practicum offers the student the opportunities to provide therapeutic nursing interventions to adult client systems with major...
Nursing

29NURS720
Health Patterns B Accelerated Practicum: Adult
health concerns in various environmental contexts. The student will apply the nursing process to client systems with variations in health patterns. Prereq: 29NURS704, 29NURS706, 29NURS708. Credit Level: G. Credit Hrs: 3.00

29NURS724
Health Pattern Synthesis/Integration-Accelerated
This course focuses on the synthesis of health patterns of client systems who are in an acute care environment. Focus is on the use of the nursing process when providing therapeutic nursing interventions for client systems experiencing complex health pattern variations. Scholarly inquiry will be used to evaluate nursing interventions. Offered for Accelerated Pathway students. Credit Level: G. Credit Hrs: 5.00

29NURS725
Accelerated-Therapeutic Nursing Interventions
Accelerated Pathway students indentify health patterns of client systems and select the use of therapeutic nursing interventions for the promotion, maintenance, and restoration of health patterns for diverse client systems in a variety of environmental contexts. The practicum component provides opportunity for nursing practice skill attainment. Credit Level: G. Credit Hrs: 7.00

29NURS726
Accelerated - Health Patterns A Childbearing
This course focuses on health pattern alterations as a basis for nursing interventions appropriate for childbearing families. The concepts of health promotion, health maintenance, and health restoration are incorporated into discussion of the nursing process and the role of the professional nurse. Scholarly inquiry will be used to analyze nursing interventions in a variety of environmental and biopsychosocial contexts. Prereq: 29NURS700, 29NURS702. Coreq: 29NURS703, 29NURS705, 29NURS706. Credit Level: G. Credit Hrs: 2.00

29NURS730
Nursing Theory
This course focuses on the systematic examination of concepts and theories common to nursing practice as a basis for developing a theoretical framework for nursing practice. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

29NURS731
Nursing Research Methodology
This course is designed for graduate neonatal or pediatric nursing students to provide scientific frameworks for research proposal development. Credit Level: G. Credit Hrs: 4.50

29NURS733
Advanced Maternal Child Health Seminar
This seminar will include discussion about genetics and fetal development for the pregnant mother and child. Credit Level: G. Credit Hrs: 4.50

29NURS734
Child and Family
This course focuses on the theories of family and group therapy with emphasis on families of young children and adolescents. Case studies are used to analyze the roles and functions of family members. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

29NURS736
Advanced Physiology
This course introduces the neonatal and pediatric student to physiology necessary for advanced nursing practice. Credit Level: G. Credit Hrs: 4.50

29NURS737
Statistical Analysis for Advanced Nursing Practice
This course focuses on statistical analysis and interpretation for advanced nursing practice. Selected statistics will be explored along with the rationale and requirements for each statistical test. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

Nursing

29NURS737
Statistical Analysis for Advanced Nursing Practice
This course focuses on statistical analysis and interpretation for advanced nursing practice. Selected statistics will be explored along with the rationale and requirements for each statistical test. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

29NURS738
Health Assessment
This course introduces the neonatal and pediatric student to health assessment for advanced nursing practice. Credit Level: G. Credit Hrs: 4.50

29NURS740
Health Policy
This course focuses on the theories and processes of health policy making. The issues include: manpower and organizational structure of the health care system and factors affecting development of the health care system. Offered for Yonsei University students. Credit Level: G. Credit Hrs: 4.50

29NURS800
Novice Nurse Educator Institute
This course prepares the novice nurse educator for the beginning teaching role in clinical and laboratory settings. The course focuses on expectations of faculty in higher education, principles of teaching and learning, student socialization, clinical assessment and evaluation strategies, and evidence-based practice. Credit Level: G. Credit Hrs: 2.00

29NURS801
Pharmacology for Advanced Nursing Practice
(3 cr. hours/week or 30 continuing education contact hours.) Prepares nurses for advanced practice with knowledge of pharmacokinetic and pharmacodynamic principles of common drug categories used to prevent illness and to restore and maintain health across the lifespan. Prereq: 29NURS811. Credit Level: G. Credit Hrs: 3.00

29NURS803
Health Care Policy, Organization, and Finance
Examines health care organization, financing, and delivery. Emphasis is directed at organizational and financial processes and strategies used in evaluating, planning, monitoring, managing and improving outcome effectiveness. Credit Level: G. Credit Hrs: 3.00

29NURS804
Statistical Analysis for Advanced Nursing Practice
Focuses on statistical analysis and interpretation for advanced nursing practice. Selected statistics will be explored along with the rationale and requirements for each statistical test. Credit Level: G. Credit Hrs: 3.00

29NURS805
Research and Evidence-Based Advance Practice Nursing
This course is designed to build on the research and statistical concepts developed in undergraduate programs. Focusing on the evaluation and utilization of new knowledge for evidence-based practice, students will develop skills needed for the application of research findings to advanced practice nursing and the beginning conduct of scholarly inquiry. Ethical concerns and safety of human subjects in research will be highlighted. Credit Level: G. Credit Hrs: 3.00

29NURS807
Theoretical Foundations of Health Promotion, Risk Reduction and Health Planning
This course is designed to build on theoretical perspectives and skills gained at the undergraduate level. Nursing and other scientific theories will be critiqued for applicability to health promotion/protection and disease prevention services for consideration of age, developmental stage, family history and ethnicity. These theories include principles of epidemiology, risk reduction, use of community/public health assessment information and demography, principles of teaching/learning, and the principles of behavioral change. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Nursing

29NURS808 Health Care Policy, Organization and Finance
This course will assist the advanced nursing practice student to develop knowledge about health care policy, organization, and finance from historical, sociocultural, political, economic, and legislative perspectives. The leadership of the Advance Practice Nurse in influencing the process of health care policy formulation, implementation, and modification as it effects client systems, clinical practice, and health care delivery are explored. The organization structure and the reimbursement process in a variety of practice settings for advanced practice nurses are examined. Credit Level: G. Credit Hrs: 3.00

29NURS809 Research for Evidence Based Practice
This course is designed to build on the research and statistical concepts learned at the undergraduate level. The graduate student will develop knowledge and skills needed for the application of research findings to advanced nursing practice and the beginning conduct of scholarly inquiry. The course assists the graduate student to use an evidence based approach to the management of patient/population health care. Epidemiologic methods and clinical biostatistics are combined to provide a foundation for research planning and the appraisal of research quality. Theories of quality improvement are provided to assist students in evaluating outcomes of care. Ethical concern and safety of human subjects research will be highlighted. Credit Level: G. Credit Hrs: 5.00

29NURS810 Family and Cultural Theories for the Advanced Nurse Practice
This course introduces the advanced practice nursing student to the concepts and frameworks of theories of family and culture throughout the lifespan. This includes growth and development throughout the lifespan with an emphasis on family interaction. Family structure and function will be investigated including family stressors, impediments, transitions, and coping mechanisms. Culture values regarding health and in health care will be explored emphasizing the effects of language, poverty, vulnerability and customs. Credit Level: G. Credit Hrs: 3.00

29NURS811 Cellular and Biophysical Basis for Pathophysiology
This course builds upon basic knowledge of human anatomy, physiology, and the mechanisms of disease. It provides an in-depth consideration of molecular physiology while integrating examples of pathophysiology most likely to be encountered by the advanced practice nurse. Basic and translational research into biochemical, molecular and organ system dysfunction are emphasized. Current thought concerning age-related changes and theories of physiological aging are included. Credit Level: G. Credit Hrs: 4.00

29NURS812 Health Assessment for Advanced Nursing Practice
(3 hours didactic/week and 3 hours clinical lab/week). Develops the knowledge and skills necessary for the performance of a comprehensive health assessment. Synthesis of data including diagnostic study interpretation is emphasized. Credit Level: G. Credit Hrs: 4.00

29NURS813 Pharmacology for Advanced Nursing Practice
This course prepares nurses for professional roles in advanced nursing practice with knowledge of pharmacokinetic and pharmacodynamic principles of common drug categories used to prevent illness and to restore and maintain health for client systems across the lifespan. Mechanisms of action, pharmacologic response, usual doses, adverse effects, indications, interactions, compatibilities, contraindications and routes of administration will be emphasized in acute and chronic conditions. Six hours of legal, ethical and financial content related to prescribing is addressed in this course as required by the Ohio Board of Nursing. Prereq: 29NURS820. Credit Level: G. Credit Hrs: 4.00

29NURS814 Health Planning
Focuses on needs assessments, program planning, implementation, and evaluation in a variety of environmental contexts. Process and outcome evaluation are covered. Credit Level: G. Credit Hrs: 3.00

29NURS815 Financial Management in Health Services
Prepares students with basic skills for the financial management of delivery systems. Topics discussed include reimbursement, budgeting, analyzing productivity, financial control, and alternative strategies for income production. Credit Level: G. Credit Hrs: 3.00

29NURS816 Human Resources Management in Health Services
Provides a systems approach to human resources management in health service administration. Examines the external environment, organizational characteristics, subsystem components, and individual and collective outcomes. Credit Level: G. Credit Hrs: 3.00

29NURS817 Organization and Management of Health Care Systems
Integrates theory and practice related to organization and management of nursing and health services. Focus is on transition into management roles and utilization of administrative theory. Case management, managed care, and quality improvement are addressed. Credit Level: G. Credit Hrs: 3.00

29NURS818 Genetic Applications to Advanced Practice Nursing
This course provides an overview of the Human Genome Project and the current state of genomics science. Basic genetic concepts about human chromosomes, karyotype, mitosis, meiosis, recombinant DNA, genotype, phenotype, Mendelian inheritance, gene expression, biochemical genetics, and chromosomal aberrations are reviewed. Students are updated on emerging genetic terms including genomics, proteomics, pharmacogenetics, and metabolomics. Application of the top ten causes of mortalities and morbidities with genomic influences across the lifespan are applied to the role of the advanced practice nurse. Pedigree construction and analysis, dysmorphology assessment, and genetic screening and testing are addressed to enhance the advanced practice role. Ethical and legal implications of genetic testing are addressed. Content is structured to insure students will be able to gain an appreciation for laboratory techniques related to clinical genetics. Credit Level: G. Credit Hrs: 2.00

29NURS819 Data Management for Advanced Practice Nursing
This practicum is designed to assist students in the development of skills in information technology required for tracking populations, management of services, and evaluation of interventions. Credit Level: G. Credit Hrs: 2.00

29NURS820 Advanced Physiology
This course builds upon basic knowledge of human anatomy and physiology. It provides an in-depth consideration of molecular physiology while integrating examples of physiological principles most likely to be encountered by the advanced practice nurse. Basic and translational research into biochemical, molecular and organ system function will be emphasized. Current thought concerning age-related changes and theories of physiology across the life span will be included. Credit Level: G. Credit Hrs: 4.00

29NURS821 Primary Care of Epidemic Illness
This course provides students with the theoretical base to assess, diagnose, and manage the care of client systems across the lifespan with selected epidemic health pattern alterations. Students will focus on the promotion, maintenance and restoration of client systems’ health patterns. Culturally competent, holistic, ethical, age and gender specific, and risk stratified care will be discussed. Nonpharmacologic aspects of care such as teaching and coaching will be addressed as well as the...
This course is the second sequential course that explores the comprehensive physical and psychological assessment of signs, symptoms and pathophysiological changes of the client system across the lifespan. The focus of the course is to develop diagnostic reasoning skill through analysis of present and past histories, physical findings and diagnostic studies that contribute to the formulation of differential diagnoses of the major health problems in the United States. The client is assessed from a holistic nursing perspective with consideration of his/her cultural, social, ethnic, family and community environments. Prereq: 29NURS820, 29NURS812. Credit Level: G. Credit Hrs: 3.00

29NURS824
Interventions for Advanced Nursing Practice
This course provides in-depth exploration of advanced therapeutic nursing interventions that are designed to promote, maintain, or restore the health of client systems across the lifespan. Students will learn the theory and then practice the most common skills needed for advanced practice nursing in primary and urgent care settings. In addition, students will analyze the purpose, cost-benefits, selection criteria and outcomes for the evaluation of each therapeutic intervention. Current theory and evidence based medicine related to the interventions are examined. Prereq: 29NURS825, 29NURS813. Credit Level: G. Credit Hrs: 4.00

29NURS825
Pathophysiology for Advanced Nursing Practice
This course is designed to build upon the student’s pre-existing knowledge of the pathophysiology of disease across the life span. The focus of the course is an in-depth consideration of cellular alterations that occur as variations in health patterns across the lifespan. It explores the underlying cellular mechanisms that form the basis for advanced nursing practice to manage the variations in health patterns of client systems. Contemporary research in genetics, biochemical processes and cellular dysfunction is emphasized. Students will have the opportunity to apply theoretical content in an associated clinical course. Prereq: 29NURS820. Credit Level: G. Credit Hrs: 2.00

29NURS826
Finance and Economics of Healthcare
This course explores healthcare finance and economics from the perspective of health care providers and non-financial managers of health services. Financial management principles, the healthcare reimbursement system, reimbursement processes, and factors influencing the financial environment are discussed with emphasis on strategies to promote and sustain the financial viability of the healthcare. Credit Level: G. Credit Hrs: 3.00-4.00

29NURS830
Financial Reimbursement for Health Care Providers
This course provides an overview of the health care financial reimbursement system and reimbursement process from initial coding through payment as it relates to health care providers. The essentials of compliant coding and supportive documentation are emphasized from the provider’s perspective. Provider insurance credentialing and contracting and practice financial management are also discussed. Credit Level: G. Credit Hrs: 3.00

29NURS832
Master’s Capstone Project
Culminating experience in which one of three foci are selected: (1) integration of research findings into practice with evaluation of client system outcomes; or (2) evaluation of current nursing practice through examination of relevant client system clinical outcomes; or (3) description of new knowledge with potential for enhancing nursing practice. Credit Level: G. Credit Hrs: 2.00

29NURS833
Master’s Research Thesis
Capstone research experience. Credit Level: G. Credit Hrs: 3.00

29NURS834
The Shifting Instructional Paradigm: Teaching to Learning
Building on a basic understanding of clinical instruction, this course focuses on the role of the faculty member in facilitation of learning in the traditional and virtual classroom. Non-traditional, innovative teaching strategies and evidence-based practice in nursing education will be explored. Prereq: 29NURS800. Credit Level: G. Credit Hrs: 3.00

29NURS835
Transforming Curricula and Student Evaluation in Nursing
Taught from a outcomes-based perspective, this course focuses on the role of the faculty member in curricular and course design and evaluation and assessment of student learning. Competency based student assessment will be addressed. Content on test design, construction and evaluation, and the use of instructional technology in student evaluation is also included. Prereq: 29NURS890. Credit Level: G. Credit Hrs: 4.00

29NURS836
Practicum: The Competent Nurse Educator
This course provides the student with an ongoing mentored classroom experience. A faculty mentor will be assigned to assist the student in developing instructional skills in the traditional and/or virtual classroom for an entire academic term. Prereq: 29NURS834, 29NURS835. Coreq: 29NURS837. Credit Level: G. Credit Hrs: 4.00

29NURS837
Role Seminar: The Competent Nurse Educator
This seminar is designed to complement 29NURS836 Practicum: The Competent Nurse Educator. A guided discussion format is used to evaluate the role of the nurse educator as leader, teacher, and scholar as a member of a higher education community. Issues to be discussed include classroom management, mentorship, change design and implementation, student counseling, legal and ethical issues in higher education, and the scholarship of teaching and learning. Prereq: 29NURS834, 29NURS835. Coreq: 29NURS836. Credit Level: G. Credit Hrs: 3.00

29NURS843
Research Practicum
Learning experience as a research assistant. Credit Level: G. Credit Hrs: 1.00-4.00

29NURS847
Directed Specialty Study II: Critical Care
This course will focus on evidence-based practice concepts in Critical Care. Guided self-assessment and independent study aid the student to expand their knowledge base related to advanced practice within their specialty. Prereq: 29NURS851. Credit Level: G. Credit Hrs: 3.00
Nursing

29NURS848
Directed Specialty Study II: Gerontology
This course will focus on evidence-based practice concepts in Gerontology. Guided self-assessment and independent study aid the student to expand their knowledge base related to advanced practice within their specialty. Prereq: 29NURS851. Credit Level: G. Credit Hrs: 3.00

29NURS849
Directed Specialty Study II: Adult Health
This course will focus on evidence-based practice concepts in Adult Health. Guided self-assessment and independent study aid the student to expand their knowledge base related to advanced practice within their specialty. Prereq: 29NURS851. Credit Level: G. Credit Hrs: 3.00

29NURS850
Evidence-Based Practice for the Nurse Leader
This course is designed to build on the research competencies acquired in a Master of Science in Nursing program. The student will develop knowledge and skills to translate the best available evidence for the improvement in outcomes in healthcare. Prereq: 29NURS804, 29NURS805. Credit Level: G. Credit Hrs: 3.00

29NURS851
Directed Specialty Study I: Symptom Management
Through seminar discussions, students learn to systematically approach complex clinical situations. This seminar course focuses on the design, implementation and evaluation of innovative interventions for client symptoms and functional problems. New models for the delivery of individual and group interventions are explored. Credit Level: G. Credit Hrs: 3.00

29NURS852
Role Integration of the CNS I
This course focuses on the role development of clinical nurse specialist. Models and frameworks are explored to aid in the integration of the many subroles of the CNS. The role of the CNS in clinical judgment, clinical inquiry, facilitation of learning, program planning and project management, advocacy and moral agency, collaboration, caring practices, cultural diversity, and systems thinking are explored. Credit Level: G. Credit Hrs: 3.00

29NURS854
Clinical Nurse Specialist Practicum I
In this practicum, students will engage in the beginning implementation of the role of the clinical nurse specialist including clinical expert, consultant, educator, researcher, and leader. Clinical experiences will take place in various contexts consistent with the student's clinical specialty. Prereq: 29NURS820, 29NURS812, 29NURS825, 29NURS813, 29NURS822. Coreq: 29NURS852, 29NURS853. Credit Level: G. Credit Hrs: 6.00

29NURS855
Role Seminar I
This seminar is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases, clinical projects, and education programs while demonstrating the ability to apply the didactic material to practice. Prereq: 29NURS820, 29NURS812, 29NURS825, 29NURS813, 29NURS822. Coreq: 29NURS852, 29NURS854. Credit Level: G. Credit Hrs: 1.00

29NURS856
Clinical Nurse Specialist Practicum II
In this practicum, students will continue to engage in the beginning implementation of the role of the clinical nurse specialist including clinical expert, consultant, educator, researcher, and leader. Clinical experiences will take place in various contexts consistent with the student's clinical specialty. Credit Level: G. Credit Hrs: 6.00

29NURS857
Role Seminar II
This seminar is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases, clinical projects, and education programs while demonstrating the ability to apply the didactic material to practice. Prereq: 29NURS855. Coreq: 29NURS800, 29NURS834, 29NURS835, 29NURS856. Credit Level: G. Credit Hrs: 1.00

29NURS858
Clinical Nurse Specialist Practicum III
In this practicum, students will continue to engage in the beginning implementation of the role of the clinical nurse specialist including clinical expert, consultant, educator, researcher, and leader. Clinical experiences will take place in various contexts consistent with the student's clinical specialty. Coreq: 29NURS860. Credit Level: G. Credit Hrs: 5.00

29NURS859
Role Seminar III
This seminar is taken in conjunction with the clinical practicum and provides an opportunity to discuss clinical cases, clinical projects, and education programs while demonstrating the ability to apply the didactic material to practice. Prereq: 29NURS856. Coreq: 29NURS860, 29NURS858. Credit Level: G. Credit Hrs: 1.00

29NURS860
Leadership Dynamics in Healthcare Organizations
This course focuses on the integration of core leadership concepts and principles into leadership roles at various levels throughout the healthcare organization. Students examine the theoretical basis for development and application of effective leader behaviors in healthcare organizations. Emphasis is placed on the experience of becoming and being a leader. Credit Level: G. Credit Hrs: 3.00

29NURS871
Special Topics (In Area of Concentration)
Study in a specified topic or area. Credit Level: G. Credit Hrs: 1.00-5.00

29NURS872
Independent Study
Independent study to expand knowledge and experience beyond that gained in regularly offered courses. Credit Level: G. Credit Hrs: 1.00-5.00

29NURS873
Independent Study
Independent study to expand knowledge and experience beyond that gained in regularly offered courses in the graduate program. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-7.00

29NURS874
Independent Study
Independent study to expand knowledge and experience beyond that gained in regularly offered courses in the graduate program. Perm of Instructor. Credit Level: G. Credit Hrs: 1.00-7.00

29NURS877
Special Topics (In Area of Concentration)
Study in a specified topic or area. Credit Level: G. Credit Hrs: 1.00-5.00

29NURS878
Special Topics (In Area of Concentration)
Study in a specified topic or area. Credit Level: G. Credit Hrs: 1.00-5.00

29NURS890
CULTURE, HEALTH & COMMUNITY
The course will explore the phenomenon of culture and its broad implications for health. Cultural frameworks and research studies in the extant literature that explain and investigate the relationships between culture and health will be examined. Other relevant constructs related to culture such as ethnicity, race, religion, and socioeconomic status will be examined for their impact on population health. Credit Level: G. Credit Hrs: 3.00

H=University Honors course.
Multiple Determinants of Health - relates to the programs of faculty in independent nurse scientist. Students will become competent in this area as a basis for understanding the development of knowledge in nursing science and the impact of health determinants on individuals, communities, and systems. Credit Level: G. Credit Hrs: 4.00

29NURS941 Nursing Inquiry II
A seminar offering an in-depth study of the theoretical and philosophical underpinnings of nursing inquiry. Students study the development, history, and philosophy of science in general and their relationship to the development of nursing inquiry. Contemporary philosophies of science and theories provide the foundation for exploring methods of inquiry relevant to phenomena of interest. Prereq: 29NURS940. Credit Level: G. Credit Hrs: 4.00

29NURS942 Nursing Inquiry III
A seminar that offers students the opportunity to apply the processes of nursing inquiry to the exploration of phenomena of interest to nursing. Students integrate varied philosophical, theoretical, and methodological perspectives in designing dynamic approaches for the advancement of nursing science. Prereq: 29NURS940, 29NURS941. Credit Level: G. Credit Hrs: 5.00

29NURS945 Scientific Basis for Clinical Reasoning
This course examines approaches for the translation of the best available evidence into practice for improved outcomes in healthcare. Prereq: 29NURS804, 29NURS805. Credit Level: G. Credit Hrs: 6.00

29NURS948 Introduction to Qualitative Methods
This course focuses on qualitative research relevant to the study of human phenomena of concern to nurses. Philosophical issues are examined as they relate to paradigms and research methods. Qualitative research methods and criteria of research are analyzed. Students participate in data collection methods and analyses of data. Credit Level: G. Credit Hrs: 3.00

29NURS949 Professional Seminar II
This is the second course in a four course sequence, and is designed to continue the socialization of students into the roles and responsibilities of active novice nurse researchers. Students are exposed to all components of the research process by working with a senior nurse researcher who will actively mentor them in research endeavors. To do this, students devote 60 hours working on research teams as novice investigators; attend research team meetings, scholarship roundtables, and other appropriate seminars as identified by the research mentor or course faculty. Prereq: 29NURS950. Credit Level: G. Credit Hrs: 3.00

29NURS950 Professional Seminar I
This is the first in a four course sequence, and is designed to socialize the student into the roles and responsibilities of the PhD-prepared nurse scientist. Students will be given the opportunity to develop specific beginning competencies necessary to engage in a career as an independent nurse scientist. Students will become competent in understanding how the conceptual framework of the doctoral program - Multiple Determinants of Health - relates to the programs of faculty research and to the development of their own research. Opportunities

29NURS950 Professional Seminar I
for becoming acquainted with faculty programs of research will be provided. The specific topics of roles and responsibilities of the PhD-prepared nurse scientist, the ANA Social Policy Statement, internal and external funding mechanisms, beginning grantsmanship, the National Institutes of Health Strategic Mission and Plan, establishing collegial relationships, successful collaboration, scientific reading and writing, and dissemination of scholarship will be presented. During this class, students will select a senior research mentor for Winter and Spring Quarter. Credit Level: G. Credit Hrs: 2.00

29NURS952 Professional Seminar III
This is the third course in a four course sequence, and is designed to further socialize the student into the roles and responsibilities of an independent nurse researcher. Students continue to be exposed to all components of the research process through the research practicum begun in 29NURS951. In addition to completing 60 hours of research practicum, students will attend a weekly 2-hour seminar to continue synthesizing the knowledge needed to function as an independent nurse researcher. Students will independently conduct research based on their mentor’s program of research, produce a research synthesis paper, and begin to formulate an independent research project. Prereq: 29NURS950, 29NURS951. Credit Level: G. Credit Hrs: 4.00

29NURS953 Professional Seminar IV
As students work on their independent research projects and take course work related to their phenomenon of concern, this seminar is designed to assist students with the final articulation of their phenomenon of concern and research trajectory, increase their ability to write persuasively about their phenomenon, and assist with writing and submitting scholarly works, including publications, presentations, and grant proposals. Research mentors will attend seminar with their students twice during the quarter. Credit Level: G. Credit Hrs: 1.00

29NURS954 Proposal Seminar I
This required doctoral course facilitates the development of a dissertation proposal in a mentored environment by means of participation with peers, doctoral faculty, and the dissertation advisor. The course is a forum for students to explore methods of inquiry in the area of their phenomenon of concern with particular attention to the research problem, theoretical foundations, research methods, and data management and analysis. Students are guided in the application of the fundamentals of scientific writing and critical analyses of the literature. Faculty and students discuss the format and procedures for progression in the dissertation process. Credit Level: G. Credit Hrs: 3.00

29NURS955 Proposal Seminar II
This required doctoral course is the second in a series to facilitate the development of a dissertation proposal in a mentored environment. The course is a forum for students to participate with peers, doctoral faculty, and the dissertation advisor to explore methods of inquiry in the area of their phenomenon of concern. There is particular attention to finalization of the research problem, theoretical foundations, research methods, and data management and analysis. Students are guided in the application of the fundamentals of scientific writing and critical analyses of the literature. Faculty and students discuss the format and procedures for the dissertation process and dissertation defense. Prereq: 29NURS954. Credit Level: G. Credit Hrs: 3.00

29NURS957 Dissertation Seminar
The dissertation seminar runs concurrently with dissertation credit hours. In this seminar, all students who are working on dissertation will come together on a regular basis to discuss progress, problems, and lessons learned in order to progress in a timely manner through the dissertation process. The seminar is led by a senior scientist with significant experience with dissertation advisement. Credit Level: G.
Nursing

29NURS957  
Dissertation Seminar  
Credit Hrs: 1.00

29NURS958  
Advanced Qualitative Methods  
This course introduces the philosophical underpinnings of three interpretive methodologies: ethnography, grounded theory, and hermeneutic phenomenology. The participants will immerse themselves in the historical and classical literature that provides the foundation for these three methodologies. The participants will critique studies using each of the three interpretive research methodologies. Prereq: 29NURS948, 29NURS973. Credit Level: G. Credit Hrs: 3.00

29NURS960  
Religious, Spirituality, and Health Sciences Research  
This course is designed to provide the student an introduction to the history, evaluation, implementation, and application of research concerned with the relationship between religiosity, spirituality, and health. A primary focus will be comprehending research issues related to conceptual definitions, measurement, design, analysis, and interpretation. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

29NURS963  
Theories and Methods for Analysis of Discrete Data  
This course introduces the student to the theory and methods used in analysis of discrete data. The course is designed to provide the student with an understanding of the rates and the probability models frequently used in health care research. A major focus of the course is the application of these theories and methods in the study of human phenomena of concern to nursing. Credit Level: G. Credit Hrs: 3.00

29NURS964  
Measurement in Research Using Item Response Theory  
This course provides the student with the knowledge and skills to develop and evaluate measurement tools using item response theory. The mathematical and psychometric history of measurement and the subsequent development of the Rasch Measurement Model will be discussed. Students will have the opportunity to apply the principles and methods of the Rasch Measurement in the laboratory setting. Credit Level: G. Credit Hrs: 3.00

29NURS965  
Teaching and Learning in Graduate Nursing Education: Practicum and Seminar  
Designed to prepare nursing faculty for the teaching role in graduate education, this course (seminar and practicum) provides the participant with a guided teaching experience in the graduate classroom and/or practicum. The seminar covers such topics as how professional expertise is taught and learned, teaching styles appropriate for students already engaged in the profession, and evaluation of students' professional skills. Prereq: 29NURS934, 29NURS935, 29NURS937. Credit Level: G. Credit Hrs: 5.00

29NURS966  
Educational and Professional Leadership Strategies in Nursing  
This course is an exploration of the interplay of the university faculty member role, educational and professional leadership, and external forces that impact upon nursing education programs. Students will complete a comprehensive investigation of the academic nursing role in higher education relative to program administration, student issues, program requirements, and faculty expectations. Credit Level: G. Credit Hrs: 3.00

29NURS967  
The Scholarship of Teaching and Learning: Research Methods  
This course focuses on emerging methodologies for the study of nursing education. Students will critique current research literature pertaining to nursing education. Applicability of a variety of research methodologies (e.g., evidence-based, critical, participatory, feminist, grounded, phenomenological, and postmodern) will be explored. A research proposal related to a phenomenon of interest in nursing education will be developed. Credit Level: G. Credit Hrs: 3.00

29NURS968  
The Phenomenon of Human Care and Caring  
This course focuses on a systematic examination of the phenomenon of human care and caring using a cultural paradigmatic foundation. Human care literature will be analyzed systematically and discussed from a multidisciplinary perspective of care theorists. Historical, cultural, epistemic and ontologic dimensions of care and caring along with research methodologies will be considered in advancing the science of nursing. Credit Level: G. Credit Hrs: 3.00

29NURS969  
The Science of Symptom Management  
This course provides a systematic evaluation of the state of the science related to symptom management. Symptom management models, current theories and research related to symptom clusters, interventions and outcomes (including biophysical and economic) will be analyzed. Research design, methods, measurement implementation and analysis issues related to symptom management will be explored. Prereq: 29NURS940, 29NURS973. Credit Level: G. Credit Hrs: 3.00

29NURS971  
Interview Evaluation and Development  
This seminar focuses on the evaluation of existing instruments and development of new instruments designed to measure psychosocial and behavioral concepts of interest to nursing. Emphasis is placed on the use of rigor in the tool development and evaluation process as well as ethical and professional standards for the conduct of research. Prereq: 29NURS804, 29NURS982. Credit Level: G. Credit Hrs: 3.00

29NURS972  
Nursing Research Methods  
Seminar focuses on conceptualization of clinical nursing phenomena, relevant research designs consistent with quantitative and qualitative research methods used in describing and in examining comparative, associational and predictive relationships among phenomena, and corresponding measurement and data collection techniques. Credit Level: G. Credit Hrs: 4.00

29NURS973  
Quantitative Research Methods  
This is a seminar in which students focus on basic quantitative research designs. Students discuss varied approaches to examining nursing phenomena and identify appropriate designs for the research questions that are generated. Strengths and weaknesses of various designs will be analyzed. Methods for operationalizing variables will be explored. Sampling strategies will be compared. Students will examine the components of research proposals for common nursing funding agencies. Emphasis will be placed on the use of scientific rigor in the research process as well as the ethical and professional standards for the conduct and reporting of research. Credit Level: G. Credit Hrs: 3.00

29NURS974  
Teaching and Learning in Graduate Nursing Education  
Designed to prepare nursing faculty for the teaching role in graduate education, this course (seminar and practicum) provides the participant with a guided teaching experience in the graduate classroom and/or practicum. The seminar covers such topics as how professional expertise is taught and learned, teaching styles appropriate for students already engaged in the profession, and evaluation of students' professional skills. Prereq: 29NURS834, 29NURS835, 29NURS837. Credit Level: G. Credit Hrs: 5.00

29NURS975  
Educational and Professional Leadership Strategies in Nursing  
This course is an exploration of the interplay of the university faculty member role, educational and professional leadership, and external forces that impact upon nursing education programs. Students will complete a comprehensive investigation of the academic nursing role in

H=University Honors course.  
Within the GLM will be introduced. The Generalized Linear Model will more advanced topics such as modeling and interpreting interactions. The General Linear Model (GLM) will be reviewed and from an applied perspective with an emphasis on modern statistical sequence on advanced multivariate statistics. The course will be taught from an applied perspective with a focus on modern statistical techniques. Topics covered include foundational concepts and traditional statistical methods such as MANOVA and DFA that fall within the rubric of the General Linear Model. Prereq: 29NURS804. Credit Level: G. Credit Hrs: 3.00

Advanced Multivariate Analysis II: Generalized Linear and Additive Models
be taught, beginning with logistic regression. Finally, the Generalized Additive Model will be taught as an adjunct to the other modeling procedures learned. Prereq: 29NURS982. Credit Level: G. Credit Hrs: 3.00

Advanced Multivariate Analysis III: Structural Equation Modeling & Hierarchical/Multilevel Models
This course is the third in a 3-quarter sequence on advanced multivariate statistics. The structural equation model will be presented as two primary components: 1) the measurement model; and, 2) the structural or path model. Building on knowledge of regression, path modeling will be presented, followed by an introduction to psychometrics. Multiple measurement models will be introduced, including: factor analysis; latent class models, and item response theory (IRT) models. Hierarchical or multilevel models will be covered. Both linear and nonlinear forms (e.g. logistic/logit regression) will be discussed. Prereq: 29NURS982, 29NURS983. Credit Level: G. Credit Hrs: 3.00

Seminar Study of Qualitative Data Analysis
Seminar that focuses on the analysis of data for selected qualitative methods. Emphasis is placed on the identification and synthesis of themes or common elements in qualitative data through defined levels of abstraction. Credit Level: G. Credit Hrs: 3.00

Doctoral Candidacy Examination
The Doctoral Candidacy Examination documents the student's synthesis of knowledge in nursing science, scholarly inquiry, and other areas of study and determines the student's readiness to undertake research independently. Credit Level: G. Credit Hrs: 0.00

Consultation Process in Nursing Education
Course provides an understanding of consultation as a complex partnership process. Consultation is explored in terms of theory and practice and examined from the standpoint of underlying assumptions and relative advantages and disadvantages. Credit Level: G. Credit Hrs: 3.00

Health Policy and Ethical Issues in Nursing Science
Analysis of social, public and health policy in relation to the advancement of nursing science. The contribution of nursing research to the development of health policy is analyzed and evaluated. Credit Level: G. Credit Hrs: 3.00

Dissertation
In-depth research in doctoral focus area. Credit Level: G. Credit Hrs: 1.00-19.00

Advanced Multivariate Analysis I: Foundations
This course is an advanced statistical seminar for doctoral-level students in multivariate statistical techniques. It is intended to serve as the first quarter of a year-long sequence on advanced multivariate statistics. The course will be taught from an applied perspective with an emphasis on modern statistical techniques. Topics covered include foundational concepts and traditional statistical techniques such as MANOVA and DFA that fall within the rubric of the General Linear Model. Prereq: 29NURS804. Credit Level: G. Credit Hrs: 3.00

Advanced Multivariate Analysis II: Generalized Linear and Additive Models
This course is intended to serve as the second quarter of a year-long sequence on advanced multivariate statistics. The course will be taught from an applied perspective with an emphasis on modern statistical techniques. The General Linear Model (GLM) will be reviewed and more advanced topics such as modeling and interpreting interactions within the GLM will be introduced. The Generalized Linear Model will

H=University Honors course.
JAMES L. WINKLE COLLEGE OF PHARMACY
COURSE DESCRIPTIONS
Pharmacy-Administrative Science

25PADM551 Medication Distribution System Analysis
The use of control theory in evaluating and designing medication distribution systems. Discussion including pharmacy automation, operations analysis, job redesign, and centralized vs. decentralized operations. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

25PADM553 Pharmacy Seminar
A forum for the development of an in-depth understanding of the opportunities and challenges being faced by pharmacy and the health care system. Guest speakers focus on areas of dynamic change in pharmacy along with student presentations. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

25PADM571 Introduction to Pharmaceutical Economics & Policy
Introduction to the economic and policy analysis of the pharmaceutical industry. Focus will be on the suppliers of therapeutic agents and their motivation and performance. Potential applications of economic analyses in pharmacy and the health policy process. Demand and supply issues related to bringing products to markets, setting drug prices, and comparison of international trends will be included. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

25PADM500 Financial Realities of Pharmacy
Discussion of types of business enterprises, insurance needs, employee benefits, and taxes that are appropriate for pharmacists and pharmacies. Credit Level: G. Credit Hrs: 2.00

25PADM611 Application of Statistics for Pharmacists
Application of the basic principles of statistics to the practice of pharmacy. Statistical validity, scientific integrity of literature and the design of methods for conducting drug related studies. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PADM621 Pharmacy Communications
Introduction into social, psychological and professional aspects of pharmacist communications. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PADM631 Pharmacy Jurisprudence
A study of Federal, state, and local laws and regulations governing the practice of pharmacy. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PADM650 Phamacoeconomics-NTPD
The application of pharmacoeconomic principles in interpreting cost consequence studies of pharmaceutical and other therapeutic modalities. Sources, reliability and validity of operational measures of costs, clinical, economic and quality of life outcomes will be covered Perm of College. Credit Level: G. Credit Hrs: 3.00

25PADM672 Research in Pharmacoepidemiology and Drug Safety
Research applications for post-marketing drug safety surveillance. Focus will be on pharmacoepidemiologic research, therapeutic risk management, and pharmacoepidemiology contribution to pharmacy practices. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PADM712 Pharmacy Management I
A study of the socioeconomic factors involved with the practice of contemporary pharmacy Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

Pharmacy-Biological Science

25PBIO502 Vitamins
An in-depth examination of the biochemical aspects of vitamins and how they contribute to the health and well-being of humans. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00

25PBIO520 Clinical Toxicology
Overview and principles of toxicology with emphasis on management of the poisoned patient. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

25PBIO525 Biochemical Toxicology of Drugs and Chemicals
Focus will be on the toxicity of drugs and chemicals to the major organs of the body; target organ toxicology of xenobiotics. A major emphasis of the course is to describe the principal mechanisms by which chemicals injure the major tissue of the body. Selective chemical classes will be highlighted for their well-known toxic actions in mammalian systems. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

25PBIO610 Pharmacology Basics
Provide an understanding of the basic concepts and applications of the science of pharmacology, giving a solid base upon which to build a working knowledge of how drugs can influence target cellular activity in a manner that is beneficial to human health. The course will emphasize theoretical aspects of drug actions at the cellular and molecular levels, and on clinical aspects of pharmacology with specific examples of the application of pharmacologic principles in disease states. BoK: NA. Credit Level: G. U. Credit Hrs: 3.00

25PBIO631 Nutrition and Drugs
Interactions between foods, food supplements, electrolytes, and drugs which affect nutritional status or the status of a disease in treatment. Credit Level: G. Credit Hrs: 2.00

Pharmacy-Biological Science
25PBIO505
Development of Computer Assisted Pharmacy Instruction
An individual studies course in which students develop computer assisted instruction programs. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PBIO574
Substances of Abuse and Addictive Disorders
The course will focus on the mechanism of action of commonly abused drugs such as opiates, stimulants, and barbiturates, alcohol and hallucinogens along with issues of drugs, diagnosis and treatment of addictive disorders. Drug abuse within the profession as well as regulatory issues concerning pharmacists will be covered. Credit Level: G. Credit Hrs: 3.00

25PBIO612
Biochemistry
The chemistry and metabolism of substances involved in life processes. Perm of College. Credit Level: G. Credit Hrs: 4.00

25PBIO613
Anatomy and Physiology
Important aspects of human physiology and anatomy relative to normal human health, pathological states, and pharmacotherapeutics will be covered. Lab exercises will be coordinated with the lecture material. Perm of College. Credit Level: G. Credit Hrs: 6.00

25PBIO622
Pharmacogenomics
Discussions of gene structure, DNA replication, transcription, translation, and recombinant DNA technology. Prereq: 25PBIO612, 25PBIO613. Credit Level: G. Credit Hrs: 2.00

25PBIO624
Principles of Pharmacology
Autonomic drugs are used to illustrate pharmacological principles including mechanism of action, cellular effects and adverse reactions associated with pharmacotherapy. Credit Level: G. Credit Hrs: 5.00

25PBIO722
Topics in Neuropharmacology
This course is a specialized journal club for graduate students interested in neuropharmacology. It requires reading of the primary literature associated with research interests. It is a student-directed learning that requires presentation of journal articles. Credit Level: G. Credit Hrs: 1.00

25PBIO723
Topics in Neuropharmacology
This course is a specialized journal club for graduate students interested in neuropharmacology. It requires reading of the primary literature associated with research interests. It is a student-directed learning that requires presentation of journal articles. Credit Level: G. Credit Hrs: 1.00

25PBIO740
Methods of Biochemistry and Molecular Biology
A laboratory course in modern experimental methods used in biochemistry and molecular biology with emphasis on problem solving. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PBIO750
Reproductive Pharmacology-Physiology
Disorders and diseases of the reproductive system impact a significant portion of the population, and not only those of reproductive age. Moreover, management of reproduction, particularly through pharmacological means, is broadly used in most societies. This elective will explore these topics. Credit Level: G. Credit Hrs: 3.00

25PBIO760
Renal Pharmacology
How drugs and toxins affect kidney function and how the kidney influences therapeutic activity of drugs. 3 discussion hrs. Credit Level: G. Credit Hrs: 3.00

Pharmacy-Biological Science
25PBIO800
Contemporary Pharmacology Techniques
A rotational experience in pharmacy laboratories to acquaint graduate students with experimental techniques. 12 lab. hrs. per wk. Credit Level: G. Credit Hrs: 1.00-4.00

25PBIO850
Pharmacodynamics
A study of the sites and mechanisms of drug action, fundamental receptor concepts, biological factors influencing drug action, and the principles of experimental pharmacology. 4 discussion hrs. Credit Level: G. Credit Hrs: 4.00

25PBIO852
Molecular Pharmacology: Cell Signaling
Contemporary issues in molecular cell regulation with a focus on mechanisms of intracellular signal transduction pathways: nuclear hormone receptors, the G-protein coupled transducers, the Ras-MAP kinase cascade, and the JAK/Stat pathway. Perm of Instructor. Credit Level: G. Credit Hrs: 4.00

Pharmacy-Pharmaceutics
25PCEU602
Sunscreens and Phototoxicity
Skin structure and color. Reaction between light and skin, nature of radiation, tanning, melanogenesis and its function. Sunscreens, ultraviolet absorbers; photosensitization. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

25PCEU615
Advanced Physical Pharmacy I
A discussion of the physical-chemical principles of significant importance to pharmaceutical and cosmetic systems. BoK: NA. Credit Level: U, G. Credit Hrs: 4.00

25PCEU614
Introduction to Principles of Physical Pharmacy
Physical-organic Chemistry as related to development and production of pharmaceutical dosage forms. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PCEU633
Drug Delivery I
Pharmaceutical principles of dosage forms and pharmacy-related calculations. Physicochemical properties; biopharmaceutics; stability; formulation packaging of solution dosage forms used for various routes of administration. Perm of Instructor. Credit Level: G. Credit Hrs: 6.00

25PCEU711
Drug Delivery II

25PCEU721
Clinical Pharmacokinetics
Principles of dosing regimen design; effects of co-variates such as age, gender, genetic make-up and disease state on pharmacokinetics; therapeutic drug monitoring; individualization of dosing regimens. Prereq: 25PCEU711. Credit Level: G. Credit Hrs: 4.00

25PCEU723
Fundamentals of Powder Technology
A study of the up to date technologies of studying pharmaceutical and cosmetic powders with special reference to particle size and distribution, flow properties, mixing and relevant factors affecting mixing uniformity of powders and their dosage forms. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

25PCEU727
Diffusion Dissolution and Mass Transport in Pharmaceutical Systems
25PCEU770, 25PCEU771. Credit Level: G. Credit Hrs: 4.00

nanotechnology as they relate to dose form design. Prereq:

Design of studies involving human subjects and discussion on
demonstrates competency in multidisciplinary, didactic coursework and
development related to these products. Perm of Instructor. Credit Level:
G. Credit Hrs: 3.00

25PCEU781

Cosmetic Science Capstone Project II
This course requires comprehensive evaluation of a contemporary
issue in cosmetic science or topical drug development that
demonstrates competency in multidisciplinary, didactic coursework and
scientific, regulatory, and business aspects of research and
development related to these products. Perm of Instructor. Credit Level:
G. Credit Hrs: 3.00

25PCEU790

Molecular Biology of Skin
An advanced course that focuses on measuring the properties of
human skin. Modern protocols for testing the effects of skin care
products will be discussed. The major emphasis will be on noninvasive
measurements of skin function using biophysical instrumentation.
Prereq: 25PCEU791. Credit Level: G. Credit Hrs: 2.00

25PCEU791

Skin Care Science
Cosmetic ingredients, formulation, preparation and evaluation.
Surfactants and emulsions, shampoos and dentifrices. Credit Level: G.
Credit Hrs: 3.00

25PCEU792

Cosmetic Science II
Skin and skin care products, hair, safety testing and microbiological
aspects of cosmetics. Credit Level: G. Credit Hrs: 3.00

25PCEU793

Hair Care Science
Antiperspirant, decorative and hair treatment preparations. Stability and
stabilization of cosmetic products. Perm of Instructor. Credit Level: G.
Credit Hrs: 3.00

25PCEU794

Cosmetic Science Laboratory
Application of cosmetic science to formulation and preparation of
prototypes of cosmetic classes. Credit Level: G. Credit Hrs: 3.00

25PCEU795

Cosmetic Science Research and Development
Studies on aspects of cosmetic preformulation; influence of equipment,
the evaluation of finished cosmetic products and the development of
new ones. Credit Level: G. Credit Hrs: 3.00

25PCEU796

Color cosmetics
Fundamentals of color cosmetics including the science of colors, color
regulations, principles of formulation and testing of color cosmetics.
Credit Level: G. Credit Hrs: 2.00

25PCEU797

Color Cosmetics Laboratory
This course is designed to give hands-on experience with the
formulation, laboratory scale manufacture and evaluation of color
cosmetic products including lipsticks, pressed powders and liquid make-
up. Perm of College. Credit Level: G. Credit Hrs: 1.00

25PCEU798

Clinical and Instrumental Testing of Skin
This is an advanced course that focuses on measuring the properties of
human skin. Modern protocols for testing the effects of skin care
products will be discussed. The major emphasis will be on noninvasive
measurements of skin function using biophysical instrumentation.
Prereq: 25PCEU791. Credit Level: G. Credit Hrs: 3.00
### Pharmacy-Pharmaceutics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>25PCEU799</td>
<td>Cosmetic Science III: Product Formulation</td>
<td>This course focuses on the formulation of cosmetic and OTC products used in personal care including skin care, hair care, antiperspirants, and oral care. Perm of Instructor.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PCEU801</td>
<td>Tablet Machine Instrumentation</td>
<td>Advanced level state-of-the-art instruction on the basic principles and applications of the various technologies for the instrumentation of tablet presses and the optimization of tablet formulation.</td>
<td>G</td>
<td>2.00</td>
</tr>
</tbody>
</table>

### Pharmacy-Pharmaceutical Chemistry

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Level</th>
<th>Credit Hrs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>25PCHM623</td>
<td>Principles of Medicinal Chemistry</td>
<td>The application of chemical, biochemical and biological principles to the design and development of clinically important drugs. Receptors, physicochemical properties of drugs, drug metabolism and prodrug concepts will be discussed.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PCHM732</td>
<td>Advanced Medicinal Chemistry</td>
<td>A discussion of molecular mechanisms of receptor interaction as a basis for classification of drugs according to biochemical target sites.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PCHM733</td>
<td>Computer-Assisted Drug Design</td>
<td>Discussion and application of modern techniques of computer-assisted drug design.</td>
<td>G</td>
<td>3.00</td>
</tr>
</tbody>
</table>

### Pharmaceutical Drug Development

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>25PHDD600</td>
<td>Statistical Prin. for Clinical Research Studies</td>
<td>This course will provide an overview of the statistical principles used for the design, analysis, and interpretation of results for clinical research studies. The course will also cover the statistical topics discussed in regulatory guidelines for clinical research studies Credit Level: G.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD602</td>
<td>Regulatory Affairs I: Pre-Clinical/IND</td>
<td>Principles and regulatory guidelines for pre-clinical evaluation of the pharmacology, toxicology and pharmacokinetics of investigational drugs and biologics and key elements of the Investigational Drug (IND) application and Clinical Investigators brochures. Perm of College.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD603</td>
<td>Pre-Clinical Product Development</td>
<td>The course provides an understanding of the role of formulation/dosage form development in the overall scheme for new drug approval with an emphasis on preformulation/formulation studies, current good manufacturing practices and FDA/ICH guidelines for formulation components, processes and equipment, stability testing programs and overall quality assurance. Issues pertaining to the biopharmaceutics classification system, special aspects of formulation of biologicals and the impact of dosage form on drug disposition will also be underscored. Perm of College.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD604</td>
<td>Pharmaceutical Project Management</td>
<td>Course challenges students with the logistic and strategic issues of modern drug development at the global level. It includes exposure to principles of project management of complex programs involving discovery, pharmaceutical development, operations, regulatory affairs, clinical affairs, and marketing. Corporate challenges involved with portfolio management and optimization will be presented focusing on tools used for optimum decision making. Perm of College.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD605</td>
<td>Clinical Trials Design and Research I</td>
<td>Regulatory, statistical and operational issues in phase I trials will be discussed. The use of first dose in humans, dose escalation schemes, determination of maximal tolerated dose, mass balance, metabolism and bioavailability will be covered along with drug-drug interaction and food-effect studies. Perm of Instructor.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD606</td>
<td>Regulatory Affairs II: Clinical Research &amp; Human Subjects Protections</td>
<td>Principles and regulatory guidelines for human subjects research including analysis and assessment of regulatory issues, ethical challenges in human trials, societal pressures on product development, and current controversies in clinical trials. Principles, policies and practices in the process of transferring pre-clinical findings to human trials will be discussed Perm of Instructor.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD607</td>
<td>Seminar in Drug Development</td>
<td>The course will require the students to conduct an in-depth analysis on current issues in drug development and apply the best practices in making scientific presentations. Perm of College.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD701</td>
<td>Phase II Clinical Trials: Therapeutic Evaluation</td>
<td>The role of Phase II trials in new drug development and approval with emphasis on proof-of-concept and dose-ranging requirements. Trial designs including cross-over and parallel group will be discussed. The importance of Phase II trials for making dose selections for Phase III will be explored. Perm of College.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD702</td>
<td>Medical Devices &amp; Combination Products</td>
<td>Overview on regulatory pathways for medical devices and combination products to support a successful marketing application Perm of College.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD703</td>
<td>Phase III Clinical Trials: Therapeutic Confirmation</td>
<td>The role of Phase III trials in drug development and approval. Randomized controlled trial designs and factorial designs, selection of dose levels, management of multi-center and multi-national trials, population pharmacokinetics, choice of endpoints, surrogate endpoints, and management of milestones and metrics will be discussed. Perm of College.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD704</td>
<td>Biopharmaceutical Business and Financial Mgmt</td>
<td>This course will focus on management of the biotechnology, pharmaceutical and contract research industries, including funding the drug development process, competition, business, competition, business models, intellectual property and funding of biotechnology. Perm of College.</td>
<td>G</td>
<td>3.00</td>
</tr>
<tr>
<td>25PHDD705</td>
<td>Pharmacovigilance and Post-Marketing Surveillance</td>
<td>Introduction to pharmacovigilance and research applications for post-marketing drug surveillance. Covers basic concepts of pharmacoepidemiology and describes the New Drug Application filing and approval process related to drug safety assessment as well as adverse event monitoring. Perm of College.</td>
<td>G</td>
<td>3.00</td>
</tr>
</tbody>
</table>

H=University Honors course.

Pharmaceutical Drug Development

25PHDD707
Drug Development Project I
A problem-based/hypothesis driven research project or a comprehensive evaluation of a contemporary issue in drug/device development that demonstrates competency in multidisciplinary didactic coursework and scientific, regulatory and business aspects of new product development. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHDD708
Drug Development Project II
A problem-based/hypothesis-driven research project or a comprehensive evaluation of a contemporary issue in drug/device development that demonstrates competency in multidisciplinary didactic coursework and scientific, regulatory and business aspects of new product development. Perm of College. Credit Level: G. Credit Hrs: 3.00

Pharmacy-Interdisciplinary

25PHID541
Research in Pharmaceutical Sciences
Selected research projects designed to acquaint the student with the scientific method of investigation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

25PHID542
Research in Pharmaceutical Sciences
See 25PHID541. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

25PHID543
Research in Pharmaceutical Sciences
See 25PHID541. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00

25PHID544
Research Seminar in Pharmaceutical Sciences
Presentation of research in progress and reports on assigned topics. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

25PHID700
Principles of Pharmaceutical Sciences
Introduction to basic concepts of pharmacology, pharmacodynamics, medicinal chemistry, pharmacokinetics, pharmacoeconomics, and health outcomes that impact decisions in the drug development process. Perm of College. Credit Level: G. Credit Hrs: 4.00

25PHID701
Seminar in Pharmaceutical Sciences
Presentation of research in progress and reports on assigned topics. Credit Level: G. Credit Hrs: 1.00

25PHID702
Seminar in Pharmaceutical Sciences
See 25PHID701. Credit Level: G. Credit Hrs: 1.00

25PHID703
Seminar in Pharmaceutical Sciences
See 25PHID701. Credit Level: G. Credit Hrs: 1.00

25PHID741
Research in Pharmaceutical Sciences
Selected research projects to acquaint the student with the scientific method. Credit Level: G. Credit Hrs: 1.00-12.00

25PHID742
Research in Pharmaceutical Sciences
See 25PHID741. Credit Level: G. Credit Hrs: 1.00-12.00

25PHID743
Research in Pharmaceutical Sciences
See 25PHID741. Credit Level: G. Credit Hrs: 1.00-12.00

25PHID751
Publication of Papers in Medical Sciences
Discussion of all aspects of preparing and submitting a manuscript to a scientific medical journal. 3 lec. hrs. per wk. Credit Level: G. Credit Hrs: 1.00

H=University Honors course.
Professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College.

Credit Level: G. Credit Hrs: 6.00

Introductory Full-Time Professional Experience
Introductory full-time professional experience Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE821

Introductory Full-Time Ambulatory Professional Experience
Introductory full-time professional experience Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE822

Introductory Full-Time Institutional Professional Experience
Introductory full-time professional experience Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE833

Introduction to Advanced Professional Experience
Focus on clinical skills that develop ability to function independently on advanced professional experience rotations. Students will make case presentations and develop treatment plans. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHPE901

Medical/Surgical Specialty Advanced Experience
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE902

General Medicine Advanced Experience
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE903

Ambulatory Care/Organized Health Care Advanced Experience
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE904

Ambulatory Care/Community Advanced Experience
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE905

Drug Information/Drug Policy Development Advanced Experience
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE906

Direct Patient Care Selective Advanced Experience
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE907

Advanced Professional Experience Elective I
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE908

Advanced Professional Experience Elective II
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE909

Advanced Professional Experience Elective III
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes of the Center for the Advancement of Pharmaceutical Education (CAPE). Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE921

Advanced Practice Experience I-NTPD
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes. Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE922

Advanced Practice Experience II-NTPD
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes. Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE923

Advanced Practice Experience III-NTPD
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes. Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE924

Advanced Practice Experience IV-NTPD
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes. Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE925

Advanced Practice Experience V-NTPD
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHPE926

Advanced Practice Experience VI-NTPD
Advanced Professional Experience rotation that emphasizes professional and general ability-based outcomes. Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHRX582

Survey of Natural Medicine
An introduction to homeopathic, nutritional and herbal medicine along with future applications, current legal status and important considerations for pharmacists to be aware of when advising patients. BoK: NA. Credit Level: U, G. Credit Hrs: 2.00

Pharmacy-Pharmacy Practice

H=University Honors course.
Pharmacy-Pharmacy Practice

25PHRX544
Pharmacy Practice for Geriatric Patients
Overview of geriatric and long term patient care. Highlights pharmacist's role, major responsibilities, and opportunities available. Credit Level: G. Credit Hrs: 2.00

25PHRX556
Home Infusion Pharmacy
Therapies specific to Home Care Pharmacy practice will be discussed and compared with other practice settings. Credit Level: G. Credit Hrs: 2.00

25PHRX557
Compounding in Practice
An in-depth experience with contemporary prescription compounding of extemporaneous products. Credit Level: G. Credit Hrs: 2.00

25PHRX614
Fundamentals of Pharmacy Practice
An overview of the pharmacy profession, its opportunities and goals. Basic information such as the top 200 drugs, abbreviations, and medical terminology are included, as well as early pharmacy experience rotations. Perm of College. Credit Level: G. Credit Hrs: 4.00

25PHRX626
United States Health Care System
A study of the components of the health care system and the roles of pharmacists within this system. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHRX634
Pharmacy Practice Skills Development I
A competency based course which includes a stepped approach guiding students from introductory material to advanced, and will provide experience in pharmacy informatics and drug information sources, prescription compounding and dispensing, patient counseling, clinical problem solving, physical assessment, and pharmaceutical math skills. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX650
Advanced Pharmaceutical Care Skills-NTPD
Provide the non-traditional PharmD student with the technology and practice skills that will allow them to function independently and develop pharmaceutical care plans for a variety of patient specific problems. Perm of Instructor. Credit Level: G. Credit Hrs: 2.00

25PHRX682
Medical Ethics and the Movies
Ethical issues which are the theme of movies and other media will be analyzed by students as they relate to contemporary pharmacy practice. Credit Level: G. Credit Hrs: 2.00

25PHRX683
Professional Development through Association Activities
Students will develop an understanding of the prominent role of professional organizations in contemporary pharmacy by discussion, presentation and attendance of association meetings. Credit Level: G. Credit Hrs: 1.00-3.00

25PHRX684
History of Pharmacy
The historical development of Pharmacy in the United States will be examined including professionalization, commercial and industrial growth, Statutory Regulation and changing materia medica, dosage forms and standardization with time. Credit Level: G. Credit Hrs: 2.00

25PHRX685
Interdisciplinary Collaborative Healthcare
An interdisciplinary course designed to provide hands-on experience in the concepts and rationale for interdisciplinary healthcare. Perm of College. Credit Level: G. Credit Hrs: 3.00

Pharmacy-Pharmacy Practice

25PHRX686
Service Learning In Pharmacy Practice
Students provide service to area community partner agencies providing care to the underserved of the TriState region. In the process of providing a service, the students reinforce and refine concepts learned in course work, focusing on disease state management and communication skills. Perm of College. Credit Level: G. Credit Hrs: 1.00-3.00

25PHRX714
Pharmacy Practice Skills Development II
Development of pharmacy practice skills based on learning in required didactic courses. Lab sessions will be coordinated with therapeutics courses. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX726
Drug Literature Evaluation
Student centered course focusing on the development of critical thinking skills to evaluate medical and pharmaceutical literature. Perm of College. Credit Level: G. Credit Hrs: 1.00

25PHRX727
Pharmacy Ethics
Guides students in how to think critically and thoughtfully about ethical decisions they face in practice. It will present both western and non-western sources of ethical thought. The course will utilize a unique 6-step decision-making process to provide a framework for making effective decisions. Pharmacy based cases, which will reflect a diversity of practitioners, settings and cultures, will be presented to encourage critical thinking and enforce an interactive approach. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX732
Health Systems Pharmacy Practice
A study of the expanding roles and responsibilities of pharmacists in the health care system. Perm of Instructor. Credit Level: G. Credit Hrs: 3.00

25PHRX734
Pharmacy Practice Skills Development III
Pharmacy practice skills development based on learning in other required didactic courses. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX813
Pharmacy Practice Skills Development IV
Pharmacy practice skills development based on learning in other required didactic courses. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX831
Pharmacy Seminar
A forum for the development of an in-depth understanding of the opportunities and challenges being faced by pharmacy and the health care system. Guest speakers focus on areas of dynamic change in pharmacy along with student presentations. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHRX931
Contemporary Pharmacy Practice
The course provides students with contemporary thinking and information dealing with recent advances in various areas of pharmacy practice. Perm of College. Credit Level: G. Credit Hrs: 6.00

25PHRX965
Clinical Pharmacy Project I
A problem-based, clinical-related project that requires integration and application of the didactic coursework and experiential training in order to generate a rational solution to a well-defined question using established scientific methodologies. Perm of College. Credit Level: G. Credit Hrs: 1.00

25PHRX966
Clinical Pharmacy Project II
A problem-based, clinical-related project that requires integration and application of the didactic coursework and experiential training in order to generate a rational solution to a well-defined question using established scientific methodologies. Perm of College. Credit Level: G. Credit Hrs: 1.00

H=University Honors course.
Pharmacy-Therapeutics

25PHTHE65 Therapeutics of Hematologic and Oncologic Disorders-NTPD
Effects and patient monitoring of antineoplastic agents. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHTHE66 Therapeutics of Endocrine, Respiratory, Gastrointestinal and Inflammatory Disorders-NTPD
Principles and application of appropriate therapy of various endocrine, respiratory, gastrointestinal and inflammatory diseases. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHTH701 Critical Care Therapeutics
The pathophysiology, pharmacotherapy, and decision making processes for the treatment of patients who are critically ill. Perm of College. Credit Level: G. Credit Hrs: 2.00

Pharmacy-Therapeutics

25PHTHE65 Therapeutics of Hematologic and Oncologic Disorders-NTPD
Effects and patient monitoring of antineoplastic agents. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHTHE66 Therapeutics of Endocrine, Respiratory, Gastrointestinal and Inflammatory Disorders-NTPD
Principles and application of appropriate therapy of various endocrine, respiratory, gastrointestinal and inflammatory diseases. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHTH701 Critical Care Therapeutics
The pathophysiology, pharmacotherapy, and decision making processes for the treatment of patients who are critically ill. Perm of College. Credit Level: G. Credit Hrs: 2.00

Pharmacy-Therapeutics

25PHTHE65 Therapeutics of Hematologic and Oncologic Disorders-NTPD
Effects and patient monitoring of antineoplastic agents. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHTHE66 Therapeutics of Endocrine, Respiratory, Gastrointestinal and Inflammatory Disorders-NTPD
Principles and application of appropriate therapy of various endocrine, respiratory, gastrointestinal and inflammatory diseases. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHTH701 Critical Care Therapeutics
The pathophysiology, pharmacotherapy, and decision making processes for the treatment of patients who are critically ill. Perm of College. Credit Level: G. Credit Hrs: 2.00

Pharmacy-Therapeutics

25PHTHE65 Therapeutics of Hematologic and Oncologic Disorders-NTPD
Effects and patient monitoring of antineoplastic agents. Perm of College. Credit Level: G. Credit Hrs: 2.00

25PHTHE66 Therapeutics of Endocrine, Respiratory, Gastrointestinal and Inflammatory Disorders-NTPD
Principles and application of appropriate therapy of various endocrine, respiratory, gastrointestinal and inflammatory diseases. Perm of College. Credit Level: G. Credit Hrs: 3.00

25PHTH701 Critical Care Therapeutics
The pathophysiology, pharmacotherapy, and decision making processes for the treatment of patients who are critically ill. Perm of College. Credit Level: G. Credit Hrs: 2.00
SCHOOL OF SOCIAL WORK

COURSE DESCRIPTIONS
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>BoK:</th>
<th>Credit Level:</th>
<th>Credit Hrs:</th>
</tr>
</thead>
<tbody>
<tr>
<td>21SW101</td>
<td>Social Work First Year Seminar I: Introduction to USC</td>
<td>This seminar is designed to equip first-year students with the tools needed for success in college. The focus is on familiarizing students with UC and its resources - library, writing center, student activities and leadership development and the wellness center. Other college success skills such as time management and study skills will also be discussed. BoK: NA. Credit Level: U. Credit Hrs: 1.00</td>
<td></td>
<td>NA</td>
<td>U</td>
<td>1.00</td>
</tr>
<tr>
<td>21SW102</td>
<td>Social Work First Year Seminar II: Introduction to the Profession</td>
<td>This seminar is designed to complement Introduction to Social Work taken concurrently by first year pre-social work students. Students will explore fields of social work practice through agency visits and contacts with social work professionals. BoK: NA. Credit Level: U. Credit Hrs: 1.00</td>
<td></td>
<td>NA</td>
<td>U</td>
<td>1.00</td>
</tr>
<tr>
<td>21SW103</td>
<td>Social Work First Year Seminar III: Introduction to the Community</td>
<td>This seminar is designed to introduce students to the concept of service, a primary value of social work. Through completion of a service learning project, students will explore and develop a commitment to civic responsibility and citizenship. BoK: NA. Credit Level: U. Credit Hrs: 1.00</td>
<td></td>
<td>NA</td>
<td>U</td>
<td>1.00</td>
</tr>
<tr>
<td>21SW150</td>
<td>Introduction to the Social Work Profession</td>
<td>This course provides students an opportunity to explore the dynamic richness of the social work profession. Social work's values/ethics, historical development, role in the social service delivery system, and knowledge base will be explored. Potential careers and fields of practice will also be discussed. BoK: SE. Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
<td>SE</td>
<td>U</td>
<td>3.00</td>
</tr>
<tr>
<td>21SW250</td>
<td>Families in America</td>
<td>The major goal of this course is to study the family through history with a primary focus on contemporary families in America. Different family structures will be examined and various family life cycles will be studied. BoK: NA. Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
<td>NA</td>
<td>U</td>
<td>3.00</td>
</tr>
<tr>
<td>21SW255</td>
<td>Poverty in America</td>
<td>This course explores multiple aspects of poverty including the number of Americans affected, the role of the government in the plight of the poor, and the evolution of the welfare system and welfare reform policies. Groups at highest risk for poverty will be highlighted, including children, single parent households, older adults, and those with chronic illness and disabilities. Social work values of self-reliance, economic security, productiveness, advocacy, and self-determination and their role in finding solutions to poverty will be highlighted. BoK: SE. Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
<td>SE</td>
<td>U</td>
<td>3.00</td>
</tr>
<tr>
<td>21SW351</td>
<td>Social Welfare Institutions and the Social Work Profession</td>
<td>This introductory course familiarizes students with the institutions of social welfare and the profession of social work. Topics include the role of knowledge and values in decision-making, the differential distribution of resources and the effect on service delivery structures, and the role of human diversity in decisions about resource allocation. BoK: DC. Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
<td>SE, DC</td>
<td>U</td>
<td>3.00</td>
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<tr>
<td>21SW352</td>
<td>Social Welfare Policy</td>
<td>Policy as an expression of values; policy-making processes; social work roles and policy; major areas of policy and basic legislation; and policy implementation. BoK: DC. Credit Level: U. Credit Hrs: 3.00</td>
<td></td>
<td>DC</td>
<td>U</td>
<td>3.00</td>
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Social Work

21SW453
Generalist Social Work Practice III
This course uses systems theory and the problem solving framework for generalist social work practice with organizations and communities. Knowledge of the bio-psycho-social model of human development is integrated within an ecological perspective, where human problems are conceptualized as dynamic interchanges between the person and the environment; specifically the organizations to which one is connected, and the communities in which they are embedded. Prereq: 21SW451, 21SW452. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

21SW410
Social Work with Adolescents
This course introduces students to social work practice with adolescents. Development theories and challenges of this stage of development will be examined, including identity formation, gender sexuality, substance use, and other high risk behaviors. Skills in relationship building with adolescents will be emphasized. BoK: NA. Credit Level: U. Credit Hrs: 3.00

21SW441
Research I
This course introduces the scientific method of inquiry. The research purpose, the identification of variables, the sampling plan, and the development of data collection instruments require careful thought. Students will examine the influence of personal values on conceptualization of research questions and the need to appreciate human diversity when designing research studies. Coreq: 21SW461. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

21SW442
Research II
This course provides the student with an in-depth examination of research methodologies employed in social work practice. In particular, investigation methods used at the Macro and Micro levels of practice will be explored. The influence of personal values, the organizational context, and human diversity on the formulation and implementation of research will be a primary focus. Students will also explore the uses of information technology for the purpose of data collection/analysis, information management, and information retrieval. Prereq: 21SW441. Coreq: 21SW462. BoK: DC, SE. Credit Level: U.

21SW452
Senior Field Seminar I
The first of a three course sequence focused on integrating knowledge, skills, and values learned in the classroom with experiences in the concurrent field placement. Attention is given to understanding informal and formal structures, policies, and organizational roles affecting the entry-level social worker’s practice. Students will understand how the foundations of social work knowledge, including human development diversity issues, and values and ethics, are operationalized within the organizational structure. Students will discuss their experiences in their agency and critically analyze their role in the delivery of services to or on behalf of clients. Coreq: 21SW451. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

21SW453
Senior Field Seminar II
The second of a three course sequence designed to facilitate the integration of classroom learning with the field placement experience. Emphasis is placed on refinement of the generalist practice skills of assessment, goal-setting and contracting and selection and implementation of interventions. The use of research-based knowledge to inform practice will be emphasized. Students will have the opportunity to formally present case plans and to develop skills in peer consultation. Prereq: 21SW452, 21SW461. Coreq: 21SW462. BoK: SE, DC. Credit Level: U. Credit Hrs: 3.00

21SW454
Senior Field Seminar III
This is the final course of a three course sequence designed to facilitate the integration of classroom learning with the field placement experience. Emphasis is placed on refinement of the generalist practice skills of evaluation and termination. Students will have the opportunity to critically examine their development as social workers, demonstrate their understanding of the use of self, personal and professional values, issues of diversity, and the use of theory and knowledge in practice. Prereq: 21SW452, 21SW453. Coreq: 21SW463. BoK: DC, SE. Credit Level: U. Credit Hrs: 3.00

21SW461
Social Work Field Learning I
In consultation with an agency-based field instructor, a set of learning objectives are identified and activities are planned to achieve these objectives. Requires students to work in an agency two days per week. BoK: DC., SE. Credit Level: U. Credit Hrs: 6.00

21SW462
Social Work Field Learning II
See 21-058-461. BoK: DC., SE. Credit Level: U. Credit Hrs: 6.00

21SW463
Social Work Field Learning III
See 21-058-461. BoK: DC., SE. Credit Level: U. Credit Hrs: 6.00

21SW473
Social Work Directed Studies
Directed studies and tutorial conferences related to specific areas of social work. Prereq.: Perm. BoK: NA. Credit Level: U. Credit Hrs: 1.00-5.00

21SW500
Emotional Abuse: Assessment and Treatment
This course covers the dynamics of emotional abuse and discusses frameworks for assessment and treatment. Self psychology is one of the theoretical frameworks that will be presented to foster understanding of emotional development BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW501
Narrative Therapy and Social Work Practice
How a narrative therapy, post-modern approach opens up new intervention options for social workers and clients. Emphasis on treating the problem as the problem, not the person as the problem. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW502
Spirituality in Social Work Practice
This course will focus on how to recognize and appropriately respond to religious and spiritual issues as they emerge in practice. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW503
Social Work and Psychopharmacology
Students will learn the therapeutic effects and possible problems that can result from medication intervention. The effects that mental health medications can have on the counseling/helping relationship will also be explored. BoK: SE. Credit Level: U, G. Credit Hrs: 1.00

21SW504
Grant Writing
This course will help students identify potential funding sources, understand the components of a grant, and learn to write content in compliance with grant directives. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW505
Post Traumatic Stress Disorder in Children, Adolescents and Adults
Students will understand the symptomatology of Post Traumatic Stress Disorder, learn the diagnostic process and learn how the disorder impacts individuals, families, and communities. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00
Social Work

21SW506  
Grief Theory and Social Work Practice  
This course examines the central processes involved in grief. Models for counseling clients in grief will be reviewed with an emphasis on identification of unresolved and traumatic grief as well as opportunities for growth during the process of grief. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW507  
Domestic Violence I  
Study of domestic violence with a focus on gay and lesbian relationships. Also, an exploration of how the criminal justice system treats women who kill their abuser. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW508  
Issues of Sexuality  
The course will provide an overview of human sexual development and examine the positive and negative impact of sexual behaviors for individuals, families, and society. Social problems related to human sexuality and the role social workers play in addressing these issues will be a primary focus. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW509  
Documentation  
This course will examine the different types of documentation commonly required of social work practitioners. Legal issues related to documentation will be explored. Attention will be given to the process for conversion of observations into narrative accounts. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW510  
Suicide: Assessment and Prevention  
This course focuses on assessment of clients who may be considering suicide and the development of interventions to prevent suicide. Known risks for suicide will be outlined and ways to identify persons at risk for suicide will be discussed. Emphasis will be on interviewing strategies to use with clients who may be expressing suicidal ideation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW511  
Adoption  
This course will explore different types of adoptions and the laws that regulate the process. Special attention will focus on infant, special needs, and kinship adoption. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW512  
Transgender  
This course introduces students to the field of transgender studies. Androgyne, transvestism, transsexuality, and other transgender behaviors will be examined as well as social attitudes toward transgender people. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW513  
Attention Deficit Hyperactivity Disorder  
This course is built upon evidence-based research on treatment efficacy of both psychotherapeutic and psychotropic interventions for individuals with ADHD. The course addresses ADHD in children, adolescents, and adults. A specific focus will be upon social work interventions with various systems levels that impact the individual. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW514  
Personal Safety  
This course will examine issues of personal safety in the agency and field work settings. In particular, the course will discuss the signs of potential violence and strategies for de-escalation. The course will also provide a range of techniques designed to prevent interpersonal confrontation. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

Social Work

21SW515  
Conflict Resolution  
This course will explore strategies for managing and resolving conflicts, contributing to understanding, acceptance and change, and enhance adult and professional relationships. Students will learn conflict resolution strategies through didactic and experiential presentations. Special attention given to Mediation Intervention. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00

21SW530  
Quantitative Analysis for Social Workers  
This course is designed to help students understand the variety of statistical methods and tests used in behavioral science research. Students will develop a basic understanding of statistical software that can be utilized to evaluate clinical practice. BoK: SE. Credit Level: U, G. Credit Hrs: 3.00

21SW550  
Loss and Grief  
This course examines the central processes involved in loss and grief. Theoretical perspectives and loss and grief across the life span will be considered. Gender, cultural, and ethnic/racial variations in grief expression will be explored. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW551  
Family Violence Across the Life Cycle  
The prevalence, dynamics, and theories of various types of family violence, ranging from child abuse to elder abuse will be examined. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW552  
Substance Abuse  
Chemical dependence as a disease is emphasized, however, other etiological perspectives are also surveyed. Physiological aspects of dependence are presented and the role of gender, race, and social conditions in the assessment and intervention of substance abuse are explored. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW553  
Social Work Interviewing  
This course covers the steps for engaging the client in a professional social work interview. From engagement to termination, a major focus is on the use of self in the helping process. Issues of human diversity will be examined in relation to structuring the interview process. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW554  
Child Welfare I  
First course of a two-part series. The course provides students with the knowledge and skills to practice in a public or private child welfare setting. The course focuses on protecting children from physical and sexual abuse and neglect. Special attention is paid to determining immediate and potential risk for maltreatment. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW555  
Child Welfare II  
This course addresses the developmental and permanence needs of children. The effects of maltreatment on the physical, psychological, and social development of the child will be explored. Developmental disabilities, separation trauma, and placement issues will also be discussed. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

21SW557  
Issues in Individual Psychotherapy  
This course focuses on issues in individual psychotherapy such as disclosure, resistance, mutuality, responsibility, boundaries, abandonment, attraction, use of paradox, and termination. BoK: DC. Credit Level: U, G. Credit Hrs: 3.00

H=University Honors course.  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>21SW558</td>
<td>Child Welfare III</td>
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<tr>
<td></td>
<td>This is the third course in the Child Welfare sequence. This course examines</td>
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<tr>
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<td>the developmental and permanence needs of children. Specifically, the course</td>
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<td></td>
<td>covers effects of child maltreatment, trauma of separation, placement issues,</td>
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<td>and services available for children with disabilities. BoK: NA. Credit Level:</td>
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<td>U, G. Credit Hrs: 3.00</td>
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<tr>
<td>21SW559</td>
<td>Social Work Practice with GLBT Communities</td>
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<td>This course will examine gay, lesbian, bisexual and transgender people with</td>
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<td>a focus on historical events, conflicts and current issues. In particular,</td>
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<td>ethical issues, policies, resources, cultural diversity, and hate crimes</td>
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<td>will be a primary focus. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>21SW560</td>
<td>Aging in America</td>
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<td>This course introduces students to the field of gerontological social</td>
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<td>work. Individual concerns of older adults, including biological,</td>
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<td>psychological, and social factors will be explored. The demographics of</td>
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<td>aging will be examined along with the implications for public policy and the</td>
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<td>service delivery system. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>21SW589</td>
<td>CRISIS INTERVENTION</td>
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<td></td>
<td>CRISIS INTERVENTION BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>21SW594</td>
<td>Special Topics in Social Work</td>
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<tr>
<td></td>
<td>Variable subjects depending upon student and faculty interest. BoK: NA.</td>
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<td>Credit Level: U, G. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>21SW595</td>
<td>Special Topics in Social Work</td>
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<tr>
<td></td>
<td>See 21-058-594. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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<td>21SW596</td>
<td>Special Topics in Social Work</td>
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<tr>
<td></td>
<td>See 21-058-594. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>21SW597</td>
<td>Special Topics in Social Work</td>
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<td>See 21-058-594. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>21SW730</td>
<td>Social Welfare Policy, Institutions and Programs</td>
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<tr>
<td></td>
<td>Analysis of current major social welfare policies and their historical</td>
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<td>development with an emphasis on the cultural, political, social, and economic</td>
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<td>forces which shaped them. BoK: NA. Credit Level: U, G. Credit Hrs: 3.00</td>
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<tr>
<td>21SW795</td>
<td>Special Topics in Social Work</td>
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<td>Variable subjects based upon student and faculty interest. BoK: NA. Credit</td>
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<td>Level: U, G. Credit Hrs: 1.00-3.00</td>
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<tr>
<td>21SW796</td>
<td>Special Topics in Social Work</td>
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<td></td>
<td>See 21SW795. BoK: NA. Credit Level: U, G. Credit Hrs: 1.00-3.00</td>
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<td>21SW700</td>
<td>Brief Treatment in Social Work Practice</td>
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<td>This course focuses on differential treatment techniques for different</td>
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<td>groups. Brief treatment models are evaluated in relation to social work</td>
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<td>values and their impact on diverse client populations. Credit Level: G.</td>
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<td>Credit Hrs: 3.00</td>
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<tr>
<td>21SW701</td>
<td>Family Treatment</td>
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<td>The principles and techniques of social work practice with families is</td>
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<td>explored. Theories and models of family practice are presented with an</td>
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H=University Honors course.
Social Work

21SW721 Practice Evaluation in Social Work
Techniques and uses of single system research for monitoring and evaluating individual client outcomes and organizational change. Students learn to define groups and subsystems as single systems and to use data collected over time as control or comparison data from which to make inferences. Credit Level: G. Credit Hrs: 3.00

21SW722 Planning and Managing Program Evaluation
This course is designed to help students develop the knowledge and skills required to plan, implement, and manage program evaluation projects. Various program evaluation methods, tools, and monitoring techniques will be explored. How the results of the evaluation can be used to modify interventions and program performance will be discussed. Credit Level: G. Credit Hrs: 3.00

21SW731 Social Policy Analysis
Evaluation of social policy and its planned and unanticipated impacts are examined. Students are required to apply analytic tools to evaluate the appropriateness and utility of selected policies. Credit Level: G. Credit Hrs: 3.00

21SW740 Social Work Practice with Organizations and Communities
Introduction to macro practice -- solving social problems and making social changes at the organizational, community, and societal levels. Credit Level: G. Credit Hrs: 3.00

21SW741 Social Work Practice with Individuals and Families I
Introduction to micro practice with individuals and families. Emphasis is placed on the beginning phases of the helping process. Credit Level: G. Credit Hrs: 3.00

21SW742 Social Work Practice with Individuals and Families II
The middle and ending phases of the helping process. Credit Level: G. Credit Hrs: 3.00

21SW743 Social Work Practice with Groups
Developing competencies for direct practice with groups. An examination of various models of group work and development of group intervention skills. Credit Level: G. Credit Hrs: 3.00

21SW744 Assessment and Diagnosis in Social Work Practice
Concepts of normality, deviance, and psychopathology are presented with particular attention to influence of culture, ethnicity, and gender. Contrasts are made between diagnostic classification and assessment with attention to the DSM IV. Credit Level: G. Credit Hrs: 3.00

21SW761 Introduction to Major Mental Illness
This course focuses on persons with major mental illnesses. It includes theories of etiology, specific issues in assessment and diagnosis; the range of intervention options and an examination of various subgroups (e.g., minorities, homeless, dually diagnosed, young adults). The course emphasizes the role of the social worker using the biopsychosocial model, collaboration and community support. Social justice and eliminating stigma for persons with mental illness will be a focus. Recovery and consumer operated services and the importance of individual differences in determining interventions will be emphasized. Credit Level: G. Credit Hrs: 3.00

21SW770 Social Work Field Instruction Lab
This course introduces the field instruction program. Students will learn the policies and procedures for determining a field placement, how to develop a learning contract, and explore the specialized study opportunities. Credit Level: G. Credit Hrs: 1.00

Social Work

21SW771 Field Instruction in Social Work I
Continuation of instruction from 21SW770. Credit Level: G. Credit Hrs: 4.00

21SW772 Social Work Field Instruction II
Preparation for entry into student field practicum; introduction to the placement process and field contract; development of basic interviewing and communication skills. Credit Level: G. Credit Hrs: 4.00

21SW773 Summer Field Instruction
Summer Field Instruction Credit Level: G. Credit Hrs: 1.00-12.00

21SW780 INTRO MENTAL ILL
INTRO MENTAL ILL Credit Level: G. Credit Hrs: 3.00

21SW781 REHAB MENTAL ILL
REHAB MENTAL ILL Credit Level: G. Credit Hrs: 3.00

21SW782 COM SUP MENTAL ILL
COM SUP MENTAL ILL Credit Level: G. Credit Hrs: 3.00

21SW783 FAM MENTAL ILL
FAM MENTAL ILL Credit Level: G. Credit Hrs: 3.00

21SW785 Theory and Skills for Advanced Practice
This course is designed as a bridge from the knowledge and skills of the generalist practitioner to that required for advanced practice. Emphasis is placed on enhancing skills in engagement, relationship building, and multi-dimensional assessment. Credit Level: G. Credit Hrs: 3.00

21SW789 DIRECTED STUDIES
DIRECTED STUDIES Credit Level: G. Credit Hrs: 1.00-15.00

21SW790 Social Work Field Instruction I
This is the first 9-hour field instruction course. Students will become familiar with their field placement setting and work on their first learning contract. Credit Level: G. Credit Hrs: 2.00

21SW791 Social Work Field Instruction II
This is the second 9-hour field instruction course. Students will continue working on their foundation year learning objectives. Credit Level: G. Credit Hrs: 2.00

21SW792 Social Work Field Instruction III
This is the third 9-hour field instruction course. Students will continue working on their foundation year learning objectives. Credit Level: G. Credit Hrs: 2.00

21SW793 Social Work Field Instruction IV
This is the fourth 9-hour field instruction course. Students will continue working on their foundation year learning objectives. Credit Level: G. Credit Hrs: 2.00

21SW799 MSW Field Instruction
MSW Field instruction provides experience in professional social work practice in administration or in direct practice with individuals, families, and small groups. Individualized learning contracts are jointly developed by the student and the field instructor. This course is designed for...
This course begins with an overview of treatment approaches utilized and skills for intervention with children/adolescents and their families. This course is designed to help students develop advanced knowledge and skills for intervention with children/adolescents and their families. Emphasis on children, adolescents and families. Interviewing and assessment skills specific to children, adolescents and families. Emphasis on children, adolescents and families. Credit Level: G. Credit Hrs: 3.00

Program Planning and Implementation
Develop skills for planning and implementing social service programs. Credit Level: G. Credit Hrs: 3.00

Managing Human and Financial Resources in Social Service Agencies
This course provides students with the knowledge and skills to manage human and financial resources in social service agencies. The process of recruiting, selecting, developing, and retaining productive staff will be explored. In addition, strategies for developing financial plans that support program goals/objectives will be examined. Credit Level: G. Credit Hrs: 3.00

Methods of Personnel Administration
Major issues in personnel management of social welfare organizations: collective bargaining, affirmative action, hiring/firing. Credit Level: G. Credit Hrs: 3.00

Theory and Practice of Supervision
Study of administrative, educational, and support functions of social work supervision in human service agencies. Credit Level: G. Credit Hrs: 3.00

Methods of Resource Management
Analysis of budgetary and fiscal management processes unique to non-profit organizations are examined as is the development and preparation of a budget. Credit Level: G. Credit Hrs: 3.00

Program Policy and Implementation
Analysis of reasons for policy decisions/program outcomes. Methods and strategies of implementation planning to minimize problems is emphasized. Credit Level: G. Credit Hrs: 3.00

Children and Family Services - Programs and Policies
Overview of programmatic and policy issues governing services impacting children and families. Welfare reform, managed care and legal procedures will also be explored. Credit Level: G. Credit Hrs: 3.00

Assessment: Children, Adolescents and Families
Interviewing and assessment skills specific to children, adolescents and families. Emphasis on children/adolescents at risk. Credit Level: G. Credit Hrs: 3.00

Intervention: Children, Adolescents, & Families
This course is designed to help students develop advanced knowledge and skills for intervention with children/adolescents and their families. The course begins with an overview of treatment approaches utilized with this population. The remainder of the course looks at the application of these interventions with different types of problems often experienced by children/adolescents and their families. Attention is also given to the role human diversity plays when developing an intervention plan. Credit Level: G. Credit Hrs: 3.00

Social Work Practice in Health Care
Practice in health care settings - hospitals, home health care agencies, hospices, clinics and community based programs. Health beliefs, models of health behavior will be explained. Credit Level: G. Credit Hrs: 3.00

Social Programs and Policies in Health Care and Gerontology
An examination of major policies, programs, friends and issues in health care and gerontology. Credit Level: G. Credit Hrs: 3.00

Social Work Practice in Gerontology
This course prepares students for direct practice in a variety of settings serving older adults and their families. Theories of adult development and aging are examined. Emphasis is placed on developing skills for work with older adults experiencing "normal" life transitions, life crises, and special problems. Particular attention is given to the experiences of elderly women, minorities, and populations at risk. Credit Level: G. Credit Hrs: 3.00

Advanced Clinical Practice in Mental Health I
The focus of this course is on working with individuals with major mental illness. Theories of etiology, issues in assessment and diagnosis and a range of intervention options will be explored. Credit Level: G. Credit Hrs: 3.00

Advanced Clinical Practice in Mental Health II
This course focuses on the process of mental health psychosocial treatment, use of theoretical loci, therapeutic processes and relationship development to effect growth and change. Credit Level: G. Credit Hrs: 3.00

Policy Implications of Mental Health Practice: Negotiating the System
This course examines policy, economic, legal, ethical, and political issues that affect social techniques of the worker within the context of several modalities of group intervention are emphasized. Credit Level: G. Credit Hrs: 3.00

Field Instruction in Social Work III
See 21-058-770. Credit Level: G. Credit Hrs: 4.00

Field Instruction in Social Work IV
See 21-058-770. Credit Level: G. Credit Hrs: 4.00

Field Instruction in Social Work V
See 21-058-770. Credit Level: G. Credit Hrs: 4.00

Field Seminar
Opportunity for integration of classroom and field work. Presentation of cases and field work experiences. Credit Level: G. Credit Hrs: 1.00

Field Seminar
Opportunity for integration of classroom and field work. Presentation of cases and field work experiences. Credit Level: G. Credit Hrs: 1.00

H=University Honors course.
School of Social Work

**21SW882**
Field Integration Seminar
This seminar offers students the opportunity for classroom and field learning integration. Students present situations from their field work experiences for peer consultation. In addition, students will explore relevant practice issues. Credit Level: G. Credit Hrs: 1.00

**21SW885**
Advanced Field Instruction
Advanced Field Instruction is designed to provide a closely supervised and educationally focused learning experience that helps prepare students for competent, accountable, and autonomous practice. Emphasis is placed on integration and application of knowledge gained in the classroom. Credit Level: G. Credit Hrs: 3.00

**21SW890**
Social Work Field Instruction V
This is the fifth 9-hour field instruction course. Students begin their advanced year of field placement in one specialized study area. Credit Level: G. Credit Hrs: 2.00

**21SW891**
Social Work Field Instruction VI
This is the sixth 9-hour field instruction course. Students continue working on their advanced year learning objectives within a specialized study area. Credit Level: G. Credit Hrs: 2.00

**21SW892**
Social Work Field Instruction VII
This is the seventh 9-hour field instruction course. Students continue working on their advanced year learning objectives within a specialized study area. Credit Level: G. Credit Hrs: 2.00

**21SW893**
Social Work Field Instruction VIII
This is the eighth 9-hour field instruction course. Students continue working on their advanced year learning objectives within a specialized study area. Credit Level: G. Credit Hrs: 2.00

Social Work Technology

**21SWTN222**
Work With Families and Children
The focus of this course is upon developing an understanding of family dynamics, the roles of family members, and the rituals of family interaction with emphasis upon single-parent families. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**21SWTN231**
Work with Individuals
Introduction to the casework method. Case management, case contracting, and other contemporary models are emphasized. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**21SWTN232**
Work with Groups
In this course, students will begin to develop the skills necessary for effective social work with groups. Focus will be upon leadership in this role. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**21SWTN241**
Intervention Techniques for Child and Youth Workers
This course emphasizes the skills necessary for social service work with children and youth living in residential facilities. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**21SWTN260**
Assessment Information and Referral Skills
Skill development in assessment, information gathering and referrals. Laboratory practice. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**21SWTN262**
Advanced Interviewing
This course introduces students to counseling techniques for work with ongoing clients. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**21SWTN276**
Social Service Interviewing
Techniques and skills of interviewing. Emphasis is placed on data collection and recording. Prereq: 17SWTN275. BoK: SS. Credit Level: U. Credit Hrs: 3.00

**21SWTN277**
Social Service Seminar I
Integration of practice and theory. Runs simultaneously with Social Service Practicum. BoK: NA. Credit Level: U. Credit Hrs: 1.00

**21SWTN278**
Social Service Internship
Student on-the-job training in local social service agencies. BoK: NA. Credit Level: U. Credit Hrs: 3.00

H=University Honors course.
The University of Cincinnati traces its origins to 1819, the year of the founding of the Cincinnati College and the Medical College of Ohio. In 1870, the city of Cincinnati established the University of Cincinnati, which later absorbed the earlier institutions. UC became a state university in 1977.

The University of Cincinnati has established a continuing reputation for excellence in graduate and undergraduate education, cultural services and basic and applied research. Since its 1819 founding, UC has been the source of many contributions to society, including the oral polio vaccine, the first program of cooperative education, the first electronic organ, the first safe anti-knock gasoline and the first antihistamine. In recent years, UC has gained international attention for studies on the vibration analysis of structures, the chemistry of surfaces and laser brain surgery.

Located on five campuses, the University of Cincinnati today serves more than 37,000 students through 17 colleges and divisions offering hundreds of degree programs from the associate to the doctoral level.

UC boasts the first – and still one of the nation's largest – cooperative education or "professional practice" program. Established at UC in 1906, co-op allows students to alternate academic quarters of classroom instruction with salaried, on-the-job experience. Today, almost 4,000 UC co-op students work in 34 states and nine foreign countries for 1,500 employers.

The University of Cincinnati is a stimulating environment that has produced some exceptional people. Among past or present faculty and alumni are: President and later Chief Justice William Howard Taft; prima ballerina and ballet director Suzanne Farrell; Nobel Peace Prize recipient Charles G. Dawes; Albert Sabin, developer of the oral polio vaccine; Doris Twitchell Allen, founder of Children's International Summer Village; Cleveland Abbe, whose work at UC led to the National Weather Service; opera stars Kathleen Battle, Barbara Daniels and Mark Oswald; authors Thomas Berger (Little Big Man, Neighbors) and Jonathan Valin (The Lime Pit, Final Notice); Eula Bingham, environmental scientist and head of OSHA; Marylin Gaston, assistant surgeon general; sports greats Sandy Koufax, Oscar Robertson, Jack Twyman and Tony Trabert; architect Michael Graves; artist Tom Wesselman; Tony Award winner Faith Prince; actor David Canary; and Broadway stars Lee Roy Reams and Michelle Pawk.

UC is accredited by the North Central Association of Colleges and Schools. It is a member of the National Commission on Accrediting and is recognized by the Ohio State Department of Education.

**Colleges and Academic Units**

- College of Allied Health Sciences
- College of Applied Science
- McMicken College of Arts and Sciences
- College of Business
- Clermont College
- College-Conservatory of Music
- College of Design, Architecture, Art and Planning
- College of Education, Criminal Justice and Human Services
- College of Engineering
- The Graduate School
- College of Law
- College of Medicine
- College of Nursing
- College of Pharmacy
- Division of Professional Practice
- Raymond Walters College
- School of Social Work

**Board of Trustees and Administrative Officers**

**Board of Trustees**

Listed below are the names of present members of the Board of Trustees of the university, with the date of expiration of each trustee's term.
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Anant R. Bhati, 2009
Jeffrey L. Wyler, 2010
H.C. Buck Niehoff, 2011
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Gary Heiman, 2013
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University Mission
The University of Cincinnati is a public comprehensive system
of learning and research. The excellent faculty have distin-
guished themselves worldwide for their creative pedagogy and
research, especially in problem solving and the application of
their discoveries.

The university system is designed to serve a diverse student
body with a broad range of interests and goals. It is a place of
opportunity.

In support of this mission, the University of Cincinnati strives
to provide the highest quality learning environment, world-
renowned scholarship, innovation and community service and
to serve as a place where freedom of intellectual interchange
flourishes.

ADMISSION
The University of Cincinnati offers admission opportunities in
a wide range of academic, professional and career education
programs. The university requires that students who graduated
from high school in 1986 and thereafter who wish to earn a
baccalaureate degree present the following high school units.
Additional science and/or math units are required by some
programs.

4 units of college-preparatory English
3 units of college-preparatory mathematics
2 units of science
2 units of social science
2 units of a single foreign language
1 unit of fine arts
2 additional units of any of the above

Students who have been admitted with deficiencies in the
above requirements will be notified of that fact in acceptance
materials sent to them by the Office of Admissions.

Further information regarding admission may be found in the
front of this Bulletin and the separately published viewbook.

TRANSFER
The Ohio Board of Regents, following the directive of the Ohio
General Assembly, developed a statewide policy to facilitate
students’ ability to transfer credits from one Ohio public college
or university to another in order to avoid duplication of course
requirements. To learn more about the Ohio Board of Regents
Articulation & Transfer Policy, visit www.regents.ohio.gov/
transfer/.

Transfer and Lifelong Learning Center
The Transfer and Lifelong Learning Center (TLLC) serves
students with diverse educational backgrounds and goals, including:
• degree-seeking students transferring directly from other
colleges and universities to complete bachelor’s degrees
• professionals enrolling in certificate programs or individual
classes to enhance their skills, earn credentials, or maintain
licensure in their field
• returning students who postponed college or took a break
• intellectually curious people of all ages, taking college
courses for personal growth

Academic advisors in the TLLC are available to help: 513-556-
2247 or transfer@uc.edu.
Acceptance of Transfer Credit

Here are some general points to understand about transfer credit:

• In order for transfer credit to be awarded, institutions you have attended must be accredited by one of six national accrediting agencies:
  - Middle States Association of Colleges and Schools
  - North Central Association of Colleges and Schools
  - New England Association of Schools and Colleges
  - Northwest Association of Schools and Colleges
  - Southern Association of Colleges and Schools/Commission on Colleges
  - Western Association of Schools and Colleges

• You can check your school’s accreditation online at www.chea.org.

• General education requirements such as math, English, history and so on will usually transfer to a direct equivalent UC course.

• In most cases, a grade of C- or better is required for UC credit to be granted. (Exception: In compliance with Ohio Board of Regents requirements, for courses taken prior to fall 2005, students who have earned an associate of arts (AA) or an associate of science (AS) degree, with a cumulative GPA of 2.00 or higher, will receive credit for transfer courses with a D grade. For courses taken in fall 2005 or later, students will receive credit for all D grades earned.)

• Your GPA from other institutions does not transfer to UC. Your UC GPA is based only on course work completed at UC.

• If you have already earned a great many credits at another institution, you still have to meet UC’s residency requirements, which usually means at least two years of course work. To receive a bachelor’s degree from UC, around 65 credits must be earned here.

• UC operates on a quarter academic calendar. One semester credit equals 1.5 quarter credits. For example, 10 semester credits transfer as 15 quarter credits.

Responsibilities of Students

In order to transfer with maximum applicability of transfer credit, prospective transfer students must plan a course of study to meet the requirements (both academic and non-academic) of the institution they wish to transfer into. Planning for transfer should begin as early as possible. Delays in developing and following an appropriate plan or changing one’s plan (e.g. changing majors) may reduce the applicability of transfer credit to the degree program ultimately selected. To view the complete list of student responsibilities, visit the transfer Web pages at: www.admissions.uc.edu/transfer. An abbreviated list is provided below.

You can monitor the progress of your course review and print a copy of your Credit Evaluation Report (CER) by visiting the following Web site: www.admissions.uc.edu/cer.

The University of Cincinnati accepts credit for examinations such as Advanced Placement (AP), College-Level Examination Program (CLEP) and International Baccalaureate (IB) when minimum scores, established by UC, are earned for each exam.

The University of Cincinnati accepts military credit based on a course by course evaluation.

If you think your transfer credit evaluation is wrong, contact the Office of Admissions and explain your concern. Occasionally, courses may be evaluated incorrectly due to a lack of information about the course, or because the course content has changed. We may require a copy of the current course description and/or syllabus for re-evaluation.

The prospective transfer student should:

• Seek out program/degree and transfer information and an adviser
• Be aware that a change in major will most likely reduce the number of credits that can be applied to the new major
• Understand the policies and procedures of the transfer institution, including application fees, transfer admission, course transfer, financial aid, scholarship, housing and related deadlines.

Appeals Process

The appeals policy, in compliance with Ohio Board of Regents (OBR) Articulation & Transfer Policy, provides transfer students the ability to appeal, at multiple levels within the university, when disagreement occurs regarding the application of transfer credit toward degree requirements. To view the written policy and appeals form, visit the transfer Web pages at: www.admissions.uc.edu/transfer.

FRESH START POLICY

The purpose of the Fresh Start policy is to permit a student who performed poorly upon initial enrollment at UC to have an opportunity for a fresh cumulative grade point average.

This policy applies to UC undergraduate students who, after completing no more than four quarters, had a cumulative GPA of less than 2.0, and then were readmitted to the university.
after an absence of at least three years. These students may petition the deans of their college to have their former courses treated in accordance with the college’s advanced standing policy. Upon the approval of a Fresh Start, the student’s cumulative grade point average is initiated from the date of reentry. The credit granted for prior work is subject to the age of credit limits and degree requirements established by the student’s college at the time of readmission.

A request for a Fresh Start must be submitted within one year of readmission and applies only to courses taken at UC before readmission. Fresh Start will not be reviewed or approved prior to completion of one quarter. An academic Fresh Start is not automatic and it is not guaranteed. Academic units may impose additional criteria, such as requiring a plan of study. The Fresh Start option may be effected only once during a student’s academic career.

NOTE: Approval of a Fresh Start will be recorded on the transcript. However, students should be aware that the previous academic record will appear on the transcript and that most graduate and professional schools, as well as potential employers, may average all academic records together.

Applications for a Fresh Start may be obtained from the office of the student’s degree-granting unit and will be considered in accordance with procedures and any additional guidelines of that unit. Degree-granting units may not grant a Fresh Start to any student who fails to satisfy the above criteria. If a request for a Fresh Start is denied by the student’s college, the student may file an appeal with the University Grading Appeals Panel through the Office of the Registrar. If a request for a Fresh Start is supported by the college but the student fails to meet one or more of the minimum criteria, the college may refer the application to the advisory committee.

NOTE: Approval of a Fresh Start will be recorded on the transcript. However, students should be aware that the previous academic record will appear on the transcript and that most graduate and professional schools, as well as potential employers, may average all academic records together.

UNIVERSITY HONORS SCHOLARS PROGRAM

Designed to emphasize experiential learning, the honors scholars program engages the top 10 percent of University of Cincinnati students in curricular and co-curricular opportunities within the program’s four themes:

- leadership
- community engagement
- global studies
- research and creative arts

While following any academic program at the university, students can focus their honors course work and experiential learning projects in one theme or broadly explore all areas. Students can fulfill honors requirements through experiential learning programs with reflective components, such as:

- international study
- research
- creative/arts projects or performances
- internships, clinicals or cooperative education
- service learning or long-term community service
- leadership positions and programs

The first-year experience includes a leadership retreat (prior to the beginning of classes), English composition classes with an emphasis on civic engagement and Honors 101. In Honors 101, students create a personal development plan that will guide their academic and personal growth within the honors program and throughout their college career. Throughout the honors program, students document their learning experiences in an e-portfolio to be shared with peers, faculty, the campus community and potential employers.

All first-time freshmen admitted to a baccalaureate college at the university are automatically considered for admission to the honors scholars program; they do not need to submit a separate application. Current UC or transfer students who are interested in participating should complete the honors scholars application.

Students admitted to honors as freshmen typically have:

- a high school rank in the top 10 percent
- an unweighted high school GPA of 3.8
- an ACT score of 31 or higher
- an SAT score 1360 or higher (combined verbal and math)

When a student completes the requirements of the honors program, the designation Honors Scholar is placed on the student’s final transcript and diploma.

For information: 513-556-6254; honors@uc.edu; www.uc.edu/honors.

FEES AND FINANCIAL ASSISTANCE

Fees

Fees are assessed on the basis of a student’s college and program, the level of the classes (graduate or undergraduate), the student’s residence classification and the number of enrolled credit hours. Students registering for fewer than 12 quarter credit hours (10 quarter credit hours for graduate students) will be assessed student fees on a credit-hour basis; those who enroll for 12 quarter credit hours or more (10 hours for graduate students) will be assessed full-time instructional fee. All students will be assessed the general fee, the information technology and instructional equipment (ITIE) fee, and the nonresident surcharge, as applicable. Full-time fees normally cover up to 18
credit hours per quarter, except where the college curriculum specifies an academic load in excess of 18 hours, exclusive of military or air science credit hours. Fees for hours over 18 will be assessed at the part-time credit-hour rate.

Fees are payable at the beginning of each academic quarter. They are published online at www.onestop.uc.edu and are also available from the Office of Admissions, One Stop Student Services and the individual college offices.

Financial Aid
Students who attend the University of Cincinnati are encouraged to apply for financial aid. The Student Financial Aid Office is committed to making education as affordable as possible. Every effort will be made to identify university, federal and state resources to assist both undergraduate and graduate students in fulfilling their educational goals.

The Free Application for Federal Student Aid (FAFSA), available from any high school or UC's One Stop Student Services, is used annually to apply for all work-study, loan and undergraduate grant programs. The Web-based FAFSA, as well as a status check once you apply, is available at www.financialaid.uc.edu. Complete the FAFSA as soon as possible. Because some aid programs are awarded on a first-come, first-served basis, an early application receives priority consideration for limited funding sources.

Freshmen with exemplary high school academic records may be eligible to compete in the Cincinnatus Scholarship Competition. Information about the competition is available from the Office of Admissions. Students (new, returning and graduate) should review the information in this Bulletin concerning college scholarship programs. Scholarships are also available from the State of Ohio, high schools, churches and civic groups.

Specific information about financial aid programs, a scholarship search and the aid process is available online at www.financialaid.uc.edu. If you need more information, contact:

Student Financial Aid Office
University of Cincinnati
PO Box 210125
Cincinnati, OH 45221-0125

Phone: 513-556-1000 (One Stop Student Services)
Fax: 513-556-9171
E-mail: financeaid@uc.edu
Web site: www.financialaid.uc.edu

ORIENTATION
All students enrolling for the first time are required to attend a New Student Orientation, which allows students to take required placement tests, receive academic advising and register for their first quarter classes. Orientation also provides important information about university resources and opportunities. New students are also required to attend New Student Convocation and College Day activities that are a part of a comprehensive Welcome Week, which begins the week before fall quarter. Details about these programs will be mailed at the appropriate time.

REGISTRATION
To attend classes and receive course credit, students must officially register for classes and must pay all associated tuition and fee charges. Students should register online through the One Stop Student Service Web site at www.onestop.uc.edu. Registration dates and tuition payment deadlines are listed on the Registrar's Office Web site at www.uc.edu/registrar.

Early Registration
Early registration by appointment for continuing students opens in April for the fall quarter, October for the winter quarter and February for the spring quarter. Generate a degree audit and contact your adviser prior to early registration.

Enter the One Stop Student Service Web site at www.onestop.uc.edu.

- To obtain your appointment time each quarter, click the designated link under “Announcements and Reminders” and follow the instructions.

- Click “review registration information” for important registration policies and procedures.

- Click “view class offerings” to open the online Schedule of Classes search application. Select the appropriate quarter, enter your preferred class criteria and click “Search.” The online Schedule of Classes enables you to search by college and discipline, meeting days and times and by mode of instruction. Search results include class locations and class availability, and will provide links to online course descriptions.

- Once you have recorded a list of potential classes, return to the One Stop Student Service main page. Click “register for classes.” Log in to the registration system. Enter your selections.
Open Web Registration

Following early registration, Web registration is open to all students through the One Stop Web site at www.onestop.uc.edu. Class requests are processed while the student is online, and schedules are available online immediately following Web transactions. Students can view their schedule and bill on the One Stop Web site at any time from 6 a.m. until midnight.

In-Person Registration

This is the walk-through phase of registration that begins concurrently with open registration. Registration after calendar day seven of the quarter is possible only with college and instructor permission. Late registration fees are assessed beginning with the first day of the quarter. New students and continuing students who need to register or adjust their schedules should obtain registration forms from their college offices, seek advising on class selection and present their class requests in person in one of the registration offices. The class requests are processed by registration staff members or university service associates, and students know immediately their schedules and fees. Students registering or adjusting their schedules (add/drops) during in-person registration may obtain a schedule/bill as they leave the registration offices.

GENERAL EDUCATION

Integrated Core Learning (ICL)

The phrase “Integrated Core Learning” describes the University of Cincinnati’s signature approach to undergraduate education. ICL was developed as the thoughtful integration of all aspects of the undergraduate experience, including the General Education core, major course work, experiential learning, co-curricular activities, and faculty-guided reflection. ICL underscores the University of Cincinnati’s strengths and places them within a holistic framework for student learning from the first undergraduate year through graduation. ICL envisions the purposeful weaving of high-impact practices and experiences with high-quality, rigorous instruction.

ICL is built around three touch-points in the undergraduate experience to provide all students with key opportunities to develop, review, and act upon a learning plan for degree completion. It begins with a significant first-year experience as its cornerstone and continues with opportunities for self-reflection and on-going support through mid-collegiate coursework and experiences. Culminating with a senior-year experience, ICL will provide students with the necessary tools to transition to a profession or graduate program and continue to assume ownership for life-long learning, civic engagement, and social responsibility.

ICL relies heavily on experiential education as a way of demonstrating the linkages between the curriculum and inquiry, practice, creativity and social responsibility. Broadly defined, this approach seeks theory-practice integration, contextual complexity, and community engagement to foster learning that is self-directed, integrative, and transformational. From professional development, field projects, and study abroad to service learning and student research, experiential learning permeates every program on campus.

UNDERGRADUATE GRADING SYSTEM

At the end of each academic quarter, the Office of the University Registrar posts an official grade report for each student to the One Stop Student Services Web site. UC uses the following grading system for undergraduate courses:

Grading and Point System

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4.0000</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.6667</td>
</tr>
<tr>
<td>B+</td>
<td></td>
<td>3.3333</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3.0000</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.6667</td>
</tr>
<tr>
<td>C+</td>
<td>Satisfactory</td>
<td>2.3333</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2.0000</td>
</tr>
<tr>
<td>C-</td>
<td></td>
<td>1.6667</td>
</tr>
<tr>
<td>D+</td>
<td></td>
<td>1.3333</td>
</tr>
<tr>
<td>D</td>
<td>Poor</td>
<td>1.0000</td>
</tr>
<tr>
<td>D-</td>
<td></td>
<td>0.6667</td>
</tr>
<tr>
<td>F</td>
<td>Fail</td>
<td>0.0000</td>
</tr>
<tr>
<td>P</td>
<td>Pass</td>
<td>N/A</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
<td>N/A</td>
</tr>
<tr>
<td>T</td>
<td>Audit</td>
<td>N/A</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete¹</td>
<td>0.0000*</td>
</tr>
<tr>
<td>I/F</td>
<td>Failure²</td>
<td>0.0000</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal (Official)</td>
<td>N/A</td>
</tr>
<tr>
<td>WX</td>
<td>Withdrawal (Official) – no participation³</td>
<td>N/A</td>
</tr>
<tr>
<td>UW</td>
<td>Unofficial Withdrawal</td>
<td>0.00</td>
</tr>
<tr>
<td>X</td>
<td>Unofficial Withdrawal – no participation⁴</td>
<td>0.00</td>
</tr>
<tr>
<td>SP</td>
<td>In Progress – Satisfactory⁵</td>
<td>N/A</td>
</tr>
<tr>
<td>UP</td>
<td>In Progress – Unsatisfactory⁶</td>
<td>N/A</td>
</tr>
<tr>
<td>NP</td>
<td>Not Proficient⁶</td>
<td>N/A</td>
</tr>
<tr>
<td>NG</td>
<td>No Grade Reported (see instructor)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

¹ The I grade does not carry quality points (i.e., none) during the quarter immediately following the quarter in which the I was assigned. Thereafter, the I grade carries zero (0.0000) quality points and is calculated into the cumulative grade point average like the F grade.
If the I grade remains on the student’s record at the end of one (1) year following the end of the quarter, the I will change to I/F (Failure).

3The WX grade is displayed as a W grade on all grade reports and transcripts.

4Instructors will record an X for students who never attended classes and did not submit any assigned work. The X will appear on the transcript and will carry zero (0.00) quality points. It is calculated into the GPA like the F grade.

5Courses approved by college committees for extended grading periods are labeled SP or UP. If the SP or UP grade for a class remains on a student’s record at the end of one year following the end of the quarter, that grade will change to I/F (Failure).

6The NP grade is used only for 103-level and below English courses that both require a level of proficiency to move through the sequence and are approved by the appropriate college committees.

Explanation of Grades

The P (Pass) grade is used to indicate passing work in classes graded under the pass/fail system, as well as for non-credit classes.

The U (Unsatisfactory) grade is used to indicate failure in noncredit courses. The F grade is the appropriate grade to indicate unsatisfactory work in classes graded under the pass/fail system.

The I grade is assigned when a class grade has not been finalized and the instructor has contracted with the student for later completion of class requirements. The I grade cannot be removed by repeating the class. The I grade will carry no quality points for one quarter after it is incurred. Following that period, the I grade will carry “0.0000” quality points. An I grade automatically will be changed to I/F on the permanent record after one year if no other change of grade is submitted.

The SP and UP grades are temporarily assigned only in courses approved by designated college committees for work to be completed later. These SP and UP grades automatically will be changed to I/F on the permanent record after one year if no other change of grade is submitted.

The UW and X grades denote unofficial withdrawals. The UW grade indicates that the student discontinued class attendance but neglected to withdraw officially from the class by means of either online withdrawal or submission of the paper withdrawal form. Either the faculty member or the Office of the University Registrar may assign this grade. The X grade indicates that the student never attended or participated in the class. Both grades carry “0.0000” quality points and are calculated into the grade point average like the F grade.

The W grade denotes an official withdrawal from the class. Students may “drop” one or more classes through the 15th calendar day of the quarter. Dropped classes are not recorded on the student’s permanent academic record. Beginning with the 16th calendar day of the quarter, students can no longer “drop” a class but must officially withdraw from that class. Withdrawn classes are recorded on the student’s permanent academic record with the W grade. Each instructor should include in the class syllabus the his or her policy for withdrawing from that class. A student seeking to withdraw from the class must follow the instructions included on the syllabus. Students may then withdraw from the class either through the registration system housed on the One Stop Student Services Web site at www.onestop.uc.edu/ or by obtaining the instructor’s signature on a completed drop/add form and submitting that form to the One Stop Student Service Center (University Pavilion, 2nd floor). For all colleges, the last day to withdraw from a class is the 58th calendar day of the quarter. Students also have the option to request a complete withdrawal, which is a withdrawal from all classes for which the student is enrolled that quarter. A complete withdrawal must be initiated by the student in writing through the college office.

Note: Dropping or withdrawing from classes should not be done lightly. Financial aid funds are intended to assist students in completing course work. Federal aid recipients therefore are subject to refund and repayment obligations that may differ from university withdrawal policies. In addition, a student’s receipt of aid is contingent upon proof that the student participated in course work. Upon the student’s withdrawal from a class, the class instructor will submit participation information for review by the Office of Financial Aid. Failure to attend/participate in classes can limit the student’s aid eligibility. For additional information, consult the Office of Financial Aid Web site at www.financialaid.uc.edu/aid_recalculation.html

The pass/fail option should be indicated at the time of registration. The student cannot change this option after the 7th calendar day of the quarter. If the student fails a pass/fail class, the F grade will be recorded, impacting the cumulative grade point average.

The T grade (audit) is assigned when a student has registered as an auditor rather than for credit. The faculty member and the student should agree on the conditions of the audit, as the T grade may not be awarded automatically.

Grades and transcripts will not be released to a student with a financial obligation to the university.

Computing a Grade Point Average

Each student’s UC grade point average (GPA) is determined by dividing the total number of quality points earned by the total number of UC credit hours carried. Classes for which the grades of W, P, T, SP, UP, NP, and NG have been earned should be excluded from the calculations. Advanced standing credit is not included in the calculation of the UC cumulative quality point average.
Example: A student completes four courses during the quarter. Each course is allotted three credit hours. The student receives grades of A, B, and C. The student’s GPA is calculated as follows:

Step 1. Substitute grades with their assigned values (quality points).
   A = 4   B = 3   C = 2

Step 2. Multiply the assigned value of each grade by the credit hours allotted each course, and total them.
   A = 4 x 3 = 12
   B = 3 x 3 = 9
   C = 2 x 3 = 6
   Total = 36

Step 3. Divide the sum by the number of hours enrolled. 36 ÷ 12 = 3.0 GPA

Deadline for Changing Grades

For the first year following the completion of a class, the class instructor alone has the responsibility to change grades reported for that class, even if that year extends beyond the student’s certification for graduation. After one year, and for three additional years or until graduation (whichever comes first), the instructor may change undergraduates grades only with college approval. Any grade changes requested after this period requires the approval of a seven-member panel convened by the University Registrar.

Grade Replacement Policy

UC policy requires a student repeating a course to re-register for the course and pay tuition. Instructors may not allow a student to repeat a course without re-registering and later submitting a form to change a grade of I or other grade previously reported. Unless a student completes and submits a grade replacement application to the appropriate college office within the first 58 days of the quarter, the grades awarded for both the original class and the repeated class will be calculated into the UC cumulative grade point average.

Undergraduate students may re-enroll in up to five courses (no more than 15 total credit hours) for a recalculated GPA using the most recent registration. The original grade(s) will remain on the student’s permanent record with a symbol indicating repeated enrollment.

STUDENT GRIEVANCE POLICY AND PROCEDURES

Philosophy

All members of the University community are expected to interact with civility and respect, recognizing at the same time the unique tradition of the University to provoke thought, stimulate discussion, and examine dissent. The University encourages the resolution of complaints in a fair and collegial manner. This document establishes a policy and process for undergraduate students to request review and resolution of certain complaints.

Complaints may be resolved informally between the individuals or with the aid of their department head, college office, or the University Ombuds. However, the student may proceed through the Formal Resolution stage.

Applicability

This document supersedes all former individual college grievance procedures. It is to be used by any UC student except those who are admitted to and enrolled in a graduate degree, MD, or JD program.

These procedures are applicable when:
1. a student believes that he/she has been subjected to an academic evaluation which is capricious or biased.
2. a student believes he/she has been subjected to other improper treatment.

Exceptions

Allegations described below will be handled as outlined.
1. Complaints alleging violation of privacy. Allegations of a violation of privacy as set forth under the Family Educational Rights and Privacy Act (FERPA) will be handled by the University Registrar in accordance with current practice.
2. Complaints regarding incompetency of instruction. Allegations of incompetent instruction will be handled according to the agreement between UC and the AAUP.
3. Complaints alleging discriminatory treatment. Allegations of discriminatory treatment based on age, race, sex, sex orientation, disability, national origin, or religion will be handled according to the UC Discrimination procedure administered by the Office of Equal Opportunity. If the complaint involves a faculty member, it will be handled according to the agreement between UC and the AAUP. Copies of the process for complaints alleging discriminatory treatment involving a faculty member may be obtained at the Ombuds Office, the Office of the Vice President for Student Affairs and Services, and the Office of Equal Opportunity.
**General Guidelines**

To use these procedures, a student may initiate an informal complaint in the University Ombuds Office (607 Swift Hall) or the College Office in which the course is offered no later than the end of the quarter following the quarter in which the activity that gave rise to the complaint occurred. A student registered for cooperative education through the Division of Professional Practice will receive an extension of one quarter upon his/her request. All complaints shall be heard without unnecessary delay.

Complaints regarding a course will be in the jurisdiction of the college offering the course. If the course is offered in a different college than the student’s home college or school, the complainant’s college representative will sit as an ad hoc member of the College Grievance Review Committee (CGRC) (see Step 3).

Two or more students with the same complaint may join in a group action. A single statement of complaint shall be submitted and processed in the manner described herein for individuals, but all those joining in such a group action must sign the statement. The University Ombuds shall determine whether, in fact, all of the students have the same complaint. If it is found that they do not, they will be divided into two or more subgroups. One individual may represent the entire group but all complainants may be required to meet with the University Ombuds or the CGRC.

**Procedures**

**Step 1 – Informal Resolution.** The parties involved must first attempt to resolve the complaint informally.

A. First the student must talk with the faculty member about his/her complaint. A faculty member must be willing to meet with a student for discussion.

B. If the complaint is not resolved, the student must talk with the faculty member’s department or unit head or a college representative designated by the Dean, who will attempt to resolve the complaint.

C. If the complaint is not satisfactorily resolved through A and/or B, a student may proceed to Step 2, Mediation, or Step 3, Formal Resolution, no later than the end of the following quarter.

**Step 2 – Mediation.** Mediation shall be requested of and conducted by the Office of the University Ombuds. The University Ombuds (UO) shall consult with the College and shall meet with the individuals separately and/or together to attempt to reach a solution (written) which is agreeable to and signed by all parties to the dispute. All individuals directly involved shall receive a copy of the signed resolution. No written records, other than the final resolution, shall be retained by the UO. Original documents shall be returned to their source or to another site as agreed in the signed resolution. All other notes shall be destroyed. If the complaint is not resolved through mediation, the UO shall immediately notify the Chair of the CGRC in the college in which the dispute originated and inform all affected parties in writing.

**Step 3 – Formal Resolution.** Following the receipt of the notification that the complaint was not resolved informally through Mediation (Step 2), the student(s) may file a grievance with the Chair of the CGRC. The Chair, who is appointed by the College Dean, shall schedule a grievance review meeting. The CGRC shall be composed of two faculty selected from a pool of four elected from the faculty of the college, two students from a pool of four selected by the College Tribunal or student government, and the Chair.

Any party to the complaint may challenge the participation of any committee member on the grounds of conflict of interest. Challenges must be submitted in writing to the Chair of CGRC within two (2) days after the parties have been notified of the CGRC composition. If the Chair is challenged, the appointing Dean shall determine the validity of the challenge and either replace or retain the Chair. The challenge must specify reasons that would prevent the individual from being unbiased with respect to the grievance. Any faculty member directly involved in the grievance shall not participate as a member of a CGRC.

A student may withdraw a grievance from further consideration at any time by submitting a written statement to the Chair of the CGRC. No reason needs to be given for withdrawal of the grievance. The Chair of the CGRC will notify all individuals involved in writing that the grievance has been withdrawn and that the grievance process is terminated.

**Committee Procedures**

1. The CGRC shall hold a grievance review meeting at which all parties shall have the opportunity to present to the CGRC any written and/or oral information relevant to the complaint.

2. The CGRC may also request information (within FERPA regulations) from other sources.

3. Copies of written material provided to the Committee shall be made available, upon written request, to persons directly involved in the formal resolution of the grievance.

4. Signed written statements may, when necessary, be submitted by individuals and witnesses if unable to attend.

5. The student and faculty member may elect to have an advisor present who may counsel but not actively participate as a spokesperson or vocal advocate.

6. Either party may request testimony from witnesses. However, the physical presence of witnesses shall be restricted to those invited by the Committee (except as noted above in #5).

7. If the student or faculty member chooses not to attend the meeting, his/her written statements shall be reviewed in their absence.

8. The meetings shall be tape recorded and the tape shall be maintained in accordance with University records policy.

Following the grievance review meeting, the CGRC shall issue a report to the College Dean. The CGRC’s report shall contain:
1. relevant information including, but not limited to, documentation of written and oral information presented to the CGRC;
2. relevant University rules and policies;
3. decisions and the reasons therefore.

The College Dean shall notify both parties in writing of the CGRC’s decision. Either party may appeal the decision of the CGRC in writing to the College Dean within ten (10) days following notification. Grounds for appeal shall be limited to procedural error or new information not available at the time of the hearing. The College Dean shall have the authority to accept and implement or modify the decisions of the CGRC. If the grievance alleges capricious or biased academic evaluation and the CGRC finds in favor of the grievant, the College Dean may exercise his/her authority to alter the grade. Decisions of the College Dean shall be final.

[Written June 1, 1992]

Please note: There are separate University Grievance Procedures for graduate students and employees. Graduate Student Grievance Procedures are available from the Graduate School. Employee Grievance Procedures are available in union contracts or in the Human Resources Policies & Procedures Manual.

THE UNIVERSITY’S LIBRARIES

University of Cincinnati libraries are nationally ranked, offering access to an outstanding research library collection of over 3.4 million volumes, more than 69,000 serial subscriptions and a wide range of services to help students with their research needs. Libraries at UC include the Walter C. Langsam Library, the archives and rare books library, nine college and departmental libraries, the law library and libraries at Clermont College and Raymond Walters College. The libraries’ Web site, at www.libraries.uc.edu, provides access to the university’s own resources and serves as a local gateway to OhioLINK, a statewide library consortium that includes a central library catalog of over 46 million items from 90 other library collections across Ohio, as well as thousands of journals, almost 100 databases, and numerous digitized books, images and newspapers.

GRADUATION WITH HONORS

Students who are candidates for a degree and who have met the college’s residency requirement may be recognized by award of the following honors based on their university Grade Point Average (GPA).

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<th>Honor</th>
<th>GPA Range</th>
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<tr>
<td>Cum Laude</td>
<td>3.6000–3.7499</td>
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<tr>
<td>Magna Cum Laude</td>
<td>3.7500–3.8999</td>
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<tr>
<td>Summa Cum Laude</td>
<td>3.9000–4.0000</td>
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The university Grade Point Average (GPA) is based on all undergraduate course work taken at the University of Cincinnati. To be eligible for university honors, students must meet all residency requirements for their respective colleges.

STUDENT AFFAIRS

The Division of Student Affairs provides programs and services which complement and support the learning environment of the university and enhance the quality of student life. It traditionally provides campus-wide information and referral for students, faculty and staff.

Details regarding admissions, registration and student financial aid are located separately in this Bulletin.

African American Cultural and Research Center

The African American Cultural and Research Center enhances the entire university community by serving as a resource for individuals to become more enlightened about the African American experience. The center also aids in the retention of the African American student population by specifically addressing their academic, social, spiritual and cultural needs.

Career Development Center

The Career Development Center offers career guidance, internship and job search assistance, and referral services to students and alumni. Career fairs, professional development classes, on-campus recruiting and interviewing workshops are among the services offered quarterly. Additionally, the career navigator program specifically assists undecided students with career exploration and special topics in career decision-making classes.

Counseling Center

The Counseling Center offers individual, group and couple’s counseling for UC students. We are available Mondays through Fridays 8 a.m. to 5 p.m. for urgent care on a walk-in basis (no appointment necessary). We also provide consultations for faculty, staff, family and friends concerned about a student. Our workshops and other outreach programs are available upon request and include such topics as balancing multiple demands, building and maintaining satisfying relationships, and communication skills. A limited number of assessments for learning disabilities and attention deficit hyperactivity disorder is available only by referral from UC’s Disability Services Office. Urgent care, groups, consultation, and outreach are free; for
other counseling we accept Student Health Insurance and some other insurances, and we use a sliding fee scale. Contact us at 513-556-0648.

Disability Services
Students with disabilities who need academic accommodations or other specialized services while attending the university should contact the Disability Services Office, located in Suite 210, University Pavilion. Qualified students will receive reasonable accommodations to meet their individual needs as well as advocacy assistance on disability-related issues. The University of Cincinnati is strongly committed to maintaining an environment that guarantees students with disabilities full access to its educational programs, activities and facilities. In order to ensure timely implementation of academic accommodations, requests for accommodations or services should be made at least eight weeks in advance of the beginning of each quarter or as soon as possible after a disability has been confirmed. Requests for interpreters or real-time captioning for special programs or events should be made at least two weeks prior to the event. Contact the Disability Services Office at 513-556-6823 or (TTY) 513-556-3277.

Ethnic Programs and Services
Ethnic Programs and Services offers cultural and educational programs specifically for and about students of color, as well as financial assistance through the prestigious Darwin T. Turner scholarship program, short-term counseling and academic advising.

Judicial Affairs
The mission of the Office of University Judicial Affairs is to support the mission of the University of Cincinnati, through the implementation of the Student Code of Conduct (the university code of behavior), educational programs/sanctions, interventional programs and a due process judicial system. The Office of University Judicial Affairs is committed to promoting a safe, orderly, civil and just community by utilizing the Student Code of Conduct to hold students accountable for decisions and behavior that impact the university community.

The Office of University Judicial Affairs:
• Adjudicates all alleged violations of the University of Cincinnati Student Code of Conduct
• Promotes students’ rights, responsibility and a just community
• Promotes responsibility and ethical behavior by the university community
• Protects the opportunity for students to attain their education
• Protects the physical and mental health, safety and welfare of the university community members
• Protects individual property rights

Contact the Office of University Judicial Affairs at Suite 745 Steger SLC, PO Box 210193, Cincinnati, Ohio, 45221-0193, or 513-556-6814, fax 513-556-1458, e-mail daniel.cummins@uc.edu, Web site: www.uc.edu/studentlife/conduct

McNair Scholars Program
The McNair scholars program provides assistance to disadvantaged or underrepresented students preparing for doctoral studies through a variety of student support, scholarly and research activities.

New Student Orientation Office
The New Student Orientation Office coordinates all orientation and placement testing for incoming first-year and transfer students as they transition into UC.

One Stop Student Services Center
Cross-trained staff in the One Stop Student Services Center provide in-person, Web and phone service for issues related to registration, financial aid and billing.

Pre-Professional Advising Center
The Pre-Professional Advising Center helps students prepare for admission to medical school, law school and other professional schools.

Resident Education and Development
Resident Education and Development (RED) is responsible for the staffing, programming and quality of life in the seven undergraduate residence halls – Calhoun, Campus Recreation Center, Dabney, Daniels, Schneider, Siddall, and Turner. RED staff members include the desk operations staff for service and security features, a resident advisor (RA) for each floor community, an assistant residence coordinators (ARC) for each hall or unit, a public inquiries assistant (PIA), who is a full-time receptionist in each hall or complex, as well as staff members in the central RED administrative office. RED works collaboratively with Housing and Food Services and Physical Facilities to manage and maintain residence hall operations. RED staff advise student organizations in the halls, provide leadership development training, mediate conflicts, support university policies, and assist students and parents in identifying and using other university resources. RED provides activities to complement the in-class experience and enhance student learning, to foster students’ adjustment to university life, to encourage a sense of community and connection to campus, and to promote students’ growth and independence. For assistance, contact the front desk of any residence hall, or the central RED office in 422 Dabney Hall, 513-556-6476.
Student Activities and Leadership Development Office

An important resource for UC students who want to be involved, the Student Activities and Leadership Development Office provides leadership and direction for the more than 300 student organizations, as well as a full range of activities and cultural programs for students. Located in the Steger Student Life Center on the 400 and 600 levels, the office provides programs with an educational component, specifically leadership development and citizenship. For more information, call 513-556-6115.

Student Health Insurance

The University of Cincinnati offers an excellent, low-cost, health insurance plan to all eligible students and their eligible dependents. The coverage insures UC students and their insured dependents at home, at school, and while traveling, 24 hours a day, anywhere in the world.

UC policy requires all students who register for six or more credit hours (including co-op students) have health insurance. International students holding F and J visas are required to have health insurance if they are registered for one or more credit hours.

These students are billed automatically for single student coverage. Students with private insurance wishing to be excluded from UC’s student health insurance plan must complete an online insurance waiver form no later than the third Friday of the term or semester. The insurance must be equal to or greater than that offered by the university and must have a U.S.-based claims administrator and a U.S.-based underwriter. Students may also waive coverage through the One Stop Student Services Web site.

Graduate students enrolled in less than six credit hours may purchase coverage and should contact the Student Health Insurance Office for more information regarding the necessary forms and requirements, and due dates.

All insurance transactions, enrollments and waivers, must be received by the Student Health Insurance Office by the close of business on the third Friday of the term or semester. For information regarding benefits, enrollment or waivers, please see the student health insurance newsletter, available at the Onestop Student Services Center, college offices, or call the Student Health Insurance Office at 513-556-6868, Room 112, Varsity Village.

University Health Services

University Health Services clinics, located on the 300 level of Varsity Village and the first floor of the Holmes Building, provide primary care and gynecology and mental health services to all University of Cincinnati students. The clinics are staffed by physicians with specialty boards in internal medicine, family medicine, preventive medicine and occupational medicine; a nurse practitioner; registered nurses; nursing assistants; laboratory and radiology technologists; and pharmacists. Students are seen by appointment for primary care and gynecological services. Students are referred to specialty clinics at UHS or the Health Alliance for dermatology, mental health and other specialty appointments. The UHS pharmacy in Varsity Village offers reduced prices on the pharmaceuticals in its formulary.

Students with UC Student Health Insurance are not charged for their UHS primary care clinic visits: they are charged for vaccines, vaccine titers, orthotics, prescriptions and mental health care. Students with other health insurance may be seen at UHS, but they will be charged for their care.

UC Wellness Center

The UC Wellness Center provides resources and opportunities, disseminates information and educates the university community about health and wellness in order to create an environment that promotes, encourages and supports health decisions, behaviors and lifestyles. The Wellness Center provides workshops, programs and individual sessions free to the entire UC community on a variety of health and wellness issues. The center is located at 675 Steger Student Life Center, and can be reached at 513-556-6124.

UC Women’s Center

The UC Women’s Center (UCWC), located in 571 Steger Student Life Center (513-556-4401), is dedicated to meeting the diverse needs and interests of women and lesbian/gay, bisexual, transgender and questioning (LGBTQ) students at the University of Cincinnati. The center offers a wide range of programs and opportunities, including:

- Safe Zone – faculty, staff and student leader training on LGBTQ issues
- Women’s History Month (March)
- Sexual Awareness Month (April)
- Body Acceptance Week (April)
- Visibility Week (April)
- The C-Ring Award – the highest distinction award for a graduating senior woman
- Student Choice, Woman of the Year Award – awarded to an outstanding female faculty or staff member exemplifying qualities of leadership
The center also offers a peer education and peer advocate program and a library of more than 600 books, videos and publications.

In addition, the UC Women’s Center supports a sexual assault response program with trained professionals available to provide 24-hour on-call support, advocacy and referral to survivors of acquaintance and stranger assault, stalking and harassment. The 24-hour crisis line (513-218-9531) provides emergency support and referral to any UC student, faculty, staff member or visitor.

JUST COMMUNITY

The University of Cincinnati is a public comprehensive system of learning and research that serves a diverse student body with a broad range of interests and goals. The faculty of the university produces world-renowned scholarship and nurtures innovation in and out of the classroom. Faculty, staff and administration also support an educational setting of excellence, opportunity and service. In embracing our roles within this learning community, we subscribe to the defining purposes, traditions and diversity of the University of Cincinnati. Through our actions, we will strive to make the University of Cincinnati a more caring and just community.

As members of this community we will:

- Pursue learning and scholarship by building on successes, learning from mistakes, and pursuing quality in teaching, research and creative endeavors
- Strive for excellence by aspiring to achieve our fullest potential in our educational and personal pursuits
- Celebrate the uniqueness of each individual by respecting individual differences and promoting common interests
- Practice civility by extending to those we meet the same respect, cooperation and caring that we expect from others
- Embrace freedom and openness by working to create an environment that is safe and affirming, one that nurtures independent thinking and the free and open expression of ideas
- Seek integrity by aspiring to the highest moral and ethical standards
- Promote justice by working to build a learning environment that offers everyone an equal opportunity to grow, flourish and contribute
- Accept responsibility by striving to build a learning community committed to these common values and principles

UC INTERNATIONAL SERVICES

UC International Services Office is responsible for all international students, faculty and visiting scholars and researchers at the University of Cincinnati. The office is in charge of issuing the Certificate of Eligibility (1-20A-B for F-1 status, or DS 2019 for J-1 status) only to applicants who have submitted all the necessary documents and have been admitted to the university. These services meet the requirements of the Department of Homeland Security, the Department of State and the governments of the countries whose students and faculty come to the University of Cincinnati for study, training and research. The university is authorized under federal law to enroll non-immigrant alien students and scholars as well as visiting faculty through the services of this office.

The staff of UC International Services is available to assist all internationals with their general welfare and guide them in their relations within the university community so that they can pursue their academic goals most successfully. The office provides advising on financial needs, cultural adjustment and personal concerns, as well as information regarding immigration and visa regulations. All international students are required to purchase the University of Cincinnati student health insurance plan unless they have insurance equal to, or greater than, the UC plan. The insurance must be provided by an American insurance carrier. For more information regarding the insurance requirement, see the Student Health Services section of this Bulletin. For more information about the university, address correspondence to UC International Services, University of Cincinnati, PO Box 210640, Cincinnati OH 45221-0640, or call 513-556-4278, fax 513-556-2990 or Web site: www.uc.edu/international/services.

RESERVE OFFICERS TRAINING CORPS

Air Force

The Air Force ROTC program prepares you for life after college and duty as an Air Force officer. AFROTC teaches students the basics of leadership as well as teamwork and offers them many outstanding opportunities for personal growth and development. In short, it helps prepare students for life in the “real world.” Students with at least two years of college remaining may enroll in the ROTC program. To initially enroll, register for one of the Aerospace Studies courses and the Leadership Laboratory. Course information can be found online on the One Stop Web site (www.onestop.uc.edu/learningopp/qtr.asp) in the McMicken College of Arts and Sciences section, under the disciplinary heading “Aerospace Studies” and “Air Force ROTC.”
The introductory classes of the General Military Course (GMC) are offered during the first two years of college. Freshmen and sophomores are not obligated to the military in any way unless they are on scholarship.

Scholarships for undergraduate and limited graduate studies are available on a competitive basis. They range from as low as $3,000 annually to full tuition, books and associated fees.

Students make the decision to pursue the Professional Officer Course (POC) during their second year. If they choose to continue in the POC they attend summer field training encampment after their second year. Students who complete all the GMC courses have a four-week training encampment; those who start their ROTC program with POC, or who do not complete all the GMC courses, attend a slightly longer session.

All cadets on scholarship, and all in the POC, receive a monthly stipend ranging from $300–$500 depending upon year in school. There are no additional costs associated with ROTC classes. Textbooks and uniforms are provided.

In the POC, students concentrate on leadership, management and the United States’ defense policy. In addition, they have various positions of responsibility within the corps, enabling them to test and practice the leadership skills they have learned.

Upon graduation, cadets go on active duty as second lieutenants. They will serve four years, gaining invaluable experience along the way. Those in flying careers will have a longer commitment.

There are numerous opportunities available to all types of students in Air Force ROTC, including five-year co-op students. To learn more, call 513-556-2237.

Army

Army ROTC provides great opportunities for leadership education, and military and adventure training, along with numerous possibilities for scholarships and financial incentives. High school seniors through graduate students are eligible to participate in the Army ROTC program and receive scholarships and financial benefits. The scholarships and financial incentives are worth in excess of $100,000 at the University of Cincinnati. Each scholarship covers tuition, fees, books and stipends ranging from $300 to $500 monthly. Additionally, scholarship winners also receive free room and board their freshman year. Special scholarships are available for nurses, Army Reserve and National Guard soldiers, current active duty soldiers, and any individual with a solid background in academics and physical fitness.

Any student in any major is welcome to participate in the Army ROTC program without any military obligation. Those that decide to officially join ROTC can choose to fulfill their military obligation either full time in the active Army or part time in the Reserve components. The Reserve components in conjunction with Army ROTC offer a dual membership program that allows cadets to gain valuable military experience along with substantial financial incentives worth up to approximately $3,000 monthly.

Enrollment in Army ROTC is no different than enrollment in any UC class. All Army ROTC courses are listed online under the disciplinary heading “Army ROTC” in the McMicken College of Arts and Sciences section (www.onestop.uc.edu/learningopp/qtr.asp). Additional paid educational and training opportunities are available in the summer through the Army ROTC program. Students who are military veterans or members of the Reserve components automatically qualify for advanced standing in the ROTC program.

Changes in Army policies and training philosophy have resulted in a dynamic Army ROTC program that provides young leaders with the skills to serve in the Army or private industry in the 21st century. Students are encouraged to try out the program and gain valuable life skills. Army ROTC can be contacted at 513-556-3664 or on the Web at www.uc.edu/armyrotc.

Note: The ROTC programs at the University of Cincinnati may not fully comply with university nondiscrimination policies due to the selective process of military service. However, the ROTC programs are in compliance with national nondiscrimination policies and the guidance and policies of the respective military services and Department of Defense.

VA EDUCATIONAL BENEFITS

Veterans, Reserve/Guard Members and Dependents of Veterans

The University of Cincinnati is approved for the education and training of veterans, reservists/guard members and dependents of veterans under several assistance laws. The VA will pay a monthly stipend to eligible applicants based on the number of applicable credit hours of enrollment in an approved program. Since these monthly checks are paid to the student after the month has ended, students need to make their own arrangements to cover tuition, books and fees. Disabled veterans authorized by VA for Vocational Rehabilitation (Chapter #31) benefits are the only ones the DVA (Department of Veteran Affairs) will fully cover for educational charges. Receipt of VA Educational Benefits does not necessarily exclude students from receipt of other forms of financial aid, so students are encouraged to apply for those monies.
In order for eligible students to be certified for VA "Chapter" Educational Benefits at UC, they must apply for official admission to a UC college and matriculate in an approved degree major within that college. They can only receive these VA benefits for classes that are required for their current official degree program. Students certified for these benefits are responsible for promptly notifying the appropriate university offices of all changes in their status, in compliance with DVA regulations and university policy. They are required to make satisfactory progress, as defined by DVA and their college, toward their degrees in order to continue receiving VA educational benefits. Applicants for VA "Chapter" benefits will have pertinent regulations and policies explained to them at an information session, as part of the initial process, before being certified for VA "Chapter" educational benefits at UC.

For more information concerning eligibility, contact the DVA 1-888-442-4551 with your social security number (or, in the case of dependents, the veteran's social security number). Students eligible for VA "Chapter" educational benefits who have applied to UC for admission should contact the UC Veterans Certification Office 513-556-6811 as early as two to three months before classes begin in order to start the benefit process. Students who have applied online with the VA will also need to complete a university application for benefits.

**Dependents of a Deceased Veteran**

Dependents of a veteran with a service-connected death prior to 8/13/81 may be eligible for additional VA benefits under the Restored Entitlement Program for Survivors (REPS). The surviving spouse must not be remarried and may apply when their youngest child reaches age 16 and ends when the child reaches age 18. A dependent child may be eligible between the ages 18 and 22 if attending a postsecondary school full time.

Obtain an application and more information on the VA Web site: www.gibill.va.gov (form #21-8924), or by phoning the VA at 314-552-9803.

**War Orphans**

Dependents of disabled veterans may be eligible for a scholarship from the Ohio Board of Regents, located in Columbus, Ohio. For more information and an application, call 888-833-1133.

**Standards of Progress for VA Pay Purposes**

If a student accumulates more than 15 credit hours of F, Y, I, X and UW grades (including IP, SP and UP grades at the undergraduate level) on their UC transcript, VA benefits will be interrupted due to "unsatisfactory progress" status. Any student suspended or dismissed from the University of Cincinnati for unsatisfactory conduct or academic reasons will have their VA educational benefits interrupted. If the "unsatisfactory progress" status or suspension/dismissal occurred at UC prior to receipt of VA benefits or, if the student was reported in "unsatisfactory progress" status to VA by their previous school, additional items are required before the application for VA benefits at UC may be processed.