Medical Laboratory Science – Distance Learning

Department of Analytical and Diagnostic Sciences

College of Allied Health Sciences

2013

Primary Director:
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I.  Program Outcomes

Please include in this section your program learning outcomes as they are listed in the P-1 form in eCurriculum. If you are already planning to revise those program learning outcomes, indicate in this section which ones might be changed, and what the new program learning outcomes are likely to be. In general, learning outcomes should be measurable, assessable, or observable in some way and aligned with national standards.

MLSC DL Program
Students will demonstrate entry-level competencies in the clinical laboratory in the areas of hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, molecular methods and other emerging diagnostics.

Students will demonstrate effective communication skills and the ability to use various communication methods and tools.

Students will demonstrate the ability to perform, analyze, evaluate and correlate laboratory data and situations in making sound and appropriate decisions.

Students will demonstrate professional skills and behaviors, including social responsibility, ethical practice and the ability to collaborate and work well with others.

Students will demonstrate a commitment to lifelong learning and professional service and leadership.
II. Curriculum/Program Map

Please include in this section a grid that identifies connections that exist between required courses in this program and the corresponding program-level learning outcomes. In other words: how will program outcomes be met? This grid should further indicate the expected levels of learning at each level (whether emerging, strengthening, or achieved). The CET&L web site includes templates that you might find useful in completed this grid.
# Curriculum Mapping Matrix: Linking Program Outcomes to Curriculum

<table>
<thead>
<tr>
<th>Key</th>
<th>Required Courses and Experiences*</th>
<th>Identified in P-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>E: Emerging</td>
<td>MLSC 3052</td>
<td>MLSC 3053</td>
</tr>
<tr>
<td>D: Developing</td>
<td>A: Achieved</td>
<td></td>
</tr>
</tbody>
</table>

### OUTCOMES

<table>
<thead>
<tr>
<th>OUTCOMES</th>
<th>MLSC 3052</th>
<th>MLSC 3053</th>
<th>MLSC 3054</th>
<th>MLSC 4050</th>
<th>MLSC 4058</th>
<th>MLSC 4060</th>
<th>MLSC 4061</th>
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<tr>
<td>1 Students will demonstrate entry-level competencies in the clinical laboratory in the areas of hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, molecular methods and other emerging diagnostics.</td>
<td>E D A</td>
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</tr>
<tr>
<td>2 Students will demonstrate effective communication skills and the ability to use various communication methods and tools.</td>
<td>D A</td>
<td>D A</td>
<td>D A</td>
<td>D A</td>
<td>D A</td>
<td>D A</td>
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<td>D A</td>
<td>D A</td>
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<tr>
<td>3 Students will demonstrate the ability to perform, analyze, evaluate and correlate laboratory data and situations in making sound and appropriate decisions.</td>
<td>D A</td>
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<td>D A</td>
<td>D A</td>
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<td>4 Students will demonstrate professional skills and behaviors, including social responsibility, ethical practice and the ability to collaborate and work well with others.</td>
<td>D A</td>
<td>D A</td>
<td>D A</td>
<td>D A</td>
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<td>D A</td>
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<tr>
<td>5 Students will demonstrate a commitment to lifelong learning and professional service and leadership.</td>
<td>D</td>
<td>D A</td>
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* Please note that you are only identifying required courses and experiences that are house with in your academic unit.
## Curriculum Mapping Matrix: Linking Program Outcomes to Curriculum

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### OUTCOMES

1. Students will demonstrate entry-level competencies in the clinical laboratory in the areas of hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, molecular methods and other emerging diagnostics.

   - E: Emerging
   - D: Developing
   - A: Achieved

2. Students will demonstrate effective communication skills and the ability to use various communication methods and tools.

   - D: Developing
   - A: Achieved

3. Students will demonstrate the ability to perform, analyze, evaluate and correlate laboratory data and situations in making sound and appropriate decisions.

   - D: Developing
   - A: Achieved

4. Students will demonstrate professional skills and behaviors, including social responsibility, ethical practice and the ability to collaborate and work well with others.

   - D: Developing
   - A: Achieved

5. Students will demonstrate a commitment to lifelong learning and professional service and leadership.

   - D: Developing

* Please note that you are only identifying required courses and experiences that are house with in your academic unit.
III. Methods and Measures

Please include in this section a description of the assessment methods that your program plans to use in assessing each of its program learning outcomes. These methods ideally include both direct and indirect examples of student learning, with authentic, performance-based assessment performed at all levels. You may find it helpful to include the "Assessment Measures Alignment Matrix" from Activity 5.

Outcome #1: Students will demonstrate entry-level competencies in the clinical laboratory in the areas of hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, molecular methods and other emerging diagnostics.

This outcome is assessed through the following measures in the appropriate courses as identified in the Curriculum Mapping Matrix: examinations and assignment performance; course completion; clinical practicum performance and evaluation; final comprehensive examination performance; national certification examination performance; course evaluations; exit, employer and alumni surveys; faculty observations and reviews.

Outcome #2: Students will demonstrate effective communication skills and the ability to use various communication methods and tools.

This outcome is assessed during the course in their ability to submit materials correctly, interact and engage with students and faculty on discussion boards, and in an assessment of affective behaviors through a professional development assessment at the end of each course.

Outcome #3: Students will demonstrate the ability to perform, analyze, evaluate and correlate laboratory data and situations in making sound and appropriate decisions.

This outcome is assessed in the relevant courses through performance on course assignments, examinations, clinical practicum performance, final comprehensive examination performance, and national certification examination performance and through employer surveys.

Outcome #4: Students will demonstrate professional skills and behaviors, including social responsibility, ethical practice and the ability to collaborate and work well with others.

This outcome is assessed in the identified courses through course activities and performance, clinical practicum performance, the mid-collegiate touchpoint activity, student presentations and professional development assessments.

Outcome #5: Students will demonstrate a commitment to lifelong learning and professional service and leadership.

This outcome is assessed through course activities and performance, clinical practicum performance and communication with clinical preceptors, student presentations in identified courses, exit, alumni and employer surveys, and conversations with students, faculty, staff, alumni, and others in contact with students during the program completion and upon graduation.
IV. Assessment Infrastructure

Please include in this section a description of the process by which your program intends to assess its learning outcomes.

- Describe which program faculty will be charged with overseeing the execution of the assessment plan as well as the ways in which they will carry out that charge, including a description of the planned timeline for assessment.
- Identify what kinds of administrative support will be available for those faculty

Please note that assessment plans should be capable of producing reports annually based on their review of the relevant data from their programs. The work of your faculty might also be coordinated and aligned with similar assessment efforts at the college and institutional levels.

All program faculty and staff take part in program evaluation, each with defined roles. As the Medical Laboratory Science Program is accredited by NAACLS, these efforts are ongoing and regular. Full program evaluation meetings are held 1-2 times per academic year with all faculty. Smaller subject area performance evaluation meetings are held throughout the year in preparation for the course starting, and at the conclusion of the course. Summaries of these meetings are recorded and maintained for accreditation.

The program director and two faculty members lead most of the efforts. Each term, all faculty and staff update a running program evaluation spreadsheet that lists all revisions relevant to courses, policies, required activities, staffing, etc. The document is housed on a shared site so that all have access to update. Outcomes to the changes are recorded on the document as well and any additional notes.

Retention, admission and graduation databases are updated each term. Two staff members are charged with these updates. Annually, this information is submitted to NAACLS and included in the program annual report. The findings are also discussed in meetings and reports.

Two faculty members participate in monitoring, assessing and summarization of national certification examination results each cycle (2 per year). The results are disseminated to the program director and faculty during the year and prior to the next course offering. One faculty member is charged with maintaining the database of results and providing the collated data.

The Advisory Board is called to meet once per year to review the curriculum, changes, revisions and outcomes. Minutes are maintained by the program as outlined by accreditation standards.

Course evaluations, exit surveys, alumni surveys and employer surveys are distributed and tabulated by specific staff members at defined time points. The data are collated and shared with the faculty group during program evaluation meetings, annual reviews, advisory board meetings, and at other relevant times.

The program director, department head and appropriate faculty review the course evaluation data, certification data, course examination data annually to identify areas of concern. Revisions and/or strategies to improve results are addressed at this time as well.

Items mentioned above are maintained by the program director, program faculty and staff, and in the office so that accreditation needs are met.
IV. Findings

*Here you will describe and explain in this section any multi-year patterns and trends that your assessment efforts have identified, including a description of any relevant relationships to national standards.*

Assessment efforts have helped the program to identify targets for retention and graduation benchmarks, as well as places to implement strategies to improve the rates.

Continual review of assessment data have also helped the program to identify curricular elements, or courses that needed revision to improve certification examination performance in the respective content area(s).

V. Use of Findings

*In this final section, you will describe how your program intends to make use of the program-level assessment data it has gathered.*

- How will this information be presented to and discussed among the faculty?
- How might this data or these discussions result in review and possible revision of course or program learning outcomes and pedagogical strategies?

The data collected is reviewed at multiple points in time which include: program evaluation meetings, annual reviews with faculty and staff, advisory board meetings, during course development and course wrap-up times, in preparation for the annual program reports, accreditation reports, and site visits. Outcomes and strategies to improve outcomes are discussed and identified. Responsibilities, implementation and reporting dates are assigned.

Some of the revisions that have come from the findings have included: textbook changes, revisions to faculty and adjunct course assignments, revisions to course materials, examinations and point distribution, policy revisions, curriculum changes, and changes to course structure.

Program assessment and improvement are regular activities in the MLS program.