# Assessment Overview

**Discipline/Program Name**: Medical Laboratory Technology  
**Assessment Year**: 2010 – 2011

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>Outcome Type</th>
<th>Methodology</th>
<th>n</th>
<th>History</th>
<th>Benchmark</th>
<th>Results</th>
<th>Strength of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Comprehensive Exams &amp; National Board Exams</td>
<td>Discipline</td>
<td>Exams</td>
<td>20</td>
<td>&gt;5 years</td>
<td>100% of the students will pass each comp exam with a 65% or better and the national exam with a 70% or better</td>
<td>100% passed the comp exams &amp; 100% passed the national exam</td>
<td>Strong: Meets Benchmark</td>
</tr>
<tr>
<td>2. Class Specific Competencies</td>
<td>Discipline</td>
<td>Exams</td>
<td>17</td>
<td>&gt;5 years</td>
<td>100% of the students will pass the Blood Bank national exam section with a score of 400 points or better</td>
<td>100% of the students passed the Blood Bank section</td>
<td>Strong: Meets Benchmark</td>
</tr>
<tr>
<td>3. Communication</td>
<td>SLO</td>
<td>Rubric Graded Term Paper</td>
<td>24</td>
<td>3 years</td>
<td>100% of the students will research and successfully write a term paper on a hematology or coagulation condition with a minimum score of 85%</td>
<td>38% scored less than 85%; 62% of students scored 85% or better</td>
<td>Weak: Misses Benchmark</td>
</tr>
</tbody>
</table>

**Describe the Learning Outcome That You Have Measured**

SLO/GE, Discipline or Other: Pre-Post Test, Judged Competition, Embedded Questions, Rubric Graded Essay

Number of Students Assessed: [Number]

# of Years This Outcome Has Been Assessed: 3 years

Measurement Standard: Report the Results of Your Data Analysis

**Recommendation**: Complete this Assessment Overview Table **after** you have completed your Assessment Summary in the following template.
Program / Discipline Assessment Report

Program/Discipline: Medical Laboratory Technology
Responsibility: Jennifer Kroetch

Program/Discipline's Mission Statement:
It is the mission of the Medical Laboratory Technology Department to facilitate student learning and meet the needs of the healthcare community by providing a relevant and current curriculum based on sound educational principles in a format that is accessible and exhibits high standards of excellence. The Medical Laboratory Technology Department is committed to utilizing appropriate and effective instructional strategies and resources and continuously assessing student academic and clinical achievement for the purpose of ongoing improvement and future learning.

Program/Discipline's Assessment History:
By using the assessment process as an evaluative technique, how has it previously affected your program's curricula and/or teaching strategies?
With the implementation of student learning outcomes, an emphasis has been put on cooperative learning projects and other assignments that lend to teamwork, leadership, and communication.
By using the assessment process as an evaluative technique, what changes to student learning have been noted?
More time has been spent with students on fulfilling class specific competencies.
What unintended consequences, if any, have occurred because of the assessment process?
None have occurred to date.
Who receives information about your department's assessment and why? (Please note if you plan on altering either of these items for the coming year.)
The assessment report is shared with the Dean of Health, Sciences, and Engineering, MLT faculty, and the Advisory Board for the Medical Laboratory Technology program.

Part 1: Previous Academic Year Assessment Summary

Previous Academic Year: 2010 – 2011

Please duplicate or remove the tables on the following pages for each outcome you have assessed. If there are five outcomes in the last year, use/create five tables. (For your convenience, four tables have been generated, two Discipline/Program related and two Student Learning/General Education related.)

(To select an entire table, hover over part of the table; an icon should appear with four arrows in the table's upper-left corner ... click on it. You can also drag over all the cells of the table to select it.) Once selected, choose Edit>Copy, click in the space immediately following the table, and choose Edit>Paste.
## Outcome #1: Comprehensive Exams and National Board Exams

**Outcome Title:**
Comprehensive Exams and National Board Exams

**Outcome Description:**
Exhibit theoretical comprehension and competence in all MLT courses by passing the comprehensive exams administered at ACC as well as the national certification exams. This will be assessed using the MLT Program Comprehensive Exams and the National Certification Exam scores.

### Benchmark for success

1. Please specify what percentage of the sample size is expected to meet or exceed your benchmark.
2. What is the rationale for choosing this measure?

To assess outcome #1, 100% of the students will be required to pass the MLT Comprehensive Exams with a minimum score of 65% and pass the National Certification Exam (ASCP) with a minimum score of 400 points or 70%.

### Description of assessment process:

1. What assessment methods were used to measure this outcome (i.e. pre/post test, portfolio review, etc.)?
2. How do these methods show students are learning?
3. What frequency is this outcome being measured (i.e.: each semester, yearly, every other year, etc.) and why?
4. How many students made up the sample size?

Outcome #1 will be assessed by evaluating the students’ scores on both the corresponding MLT Comprehensive Exams and National Certification Exam (ASCP) sectional scores.

### Results

What were the results of the assessment process? (List results for each method, if more than one were used.)

Charts showing the exam scores for each MLT comprehensive exam as well as exam scores comparing MLT students to the national average are attached. See charts 1–5 in part 3 of this report.

### What did the department learn?

1. How did group performance compare to the benchmark?
2. How does the data compare to the previous year, if applicable?
3. If multiple measures were used, how do they compare to each other?

All MLT students successfully met the benchmark of passing the respective MLT Comprehensive exams with an acceptable score of 65% or greater. 20 students were represented in this data.

From the 17 MLT students who took the ASCP exam in this timeframe, all students passed the ASCP National Certification exam with a score of 400 or higher.

The ASCP National Certification Exam scores are also provided by each individual discipline or section. The MLT student scores for each section were averaged and compared with the national average score in the corresponding section. The ACC MLT students maintained an average score that exceeded the national average in every discipline.

### Student performance summary

1. Based on the findings, how does the department rate

The department rates the student performance on the comprehensive exams and national board exams as strong. This is the single best indicator for the Medical Laboratory Technology program.
<table>
<thead>
<tr>
<th>student performance in regards to this outcome (strong, weak, or neutral)?</th>
<th>and it is accessed yearly.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2) How does this assessment affect plans for this coming year in terms of curricula, teaching strategies, and assessment methods?</td>
<td>As stated above, the ACC MLT students maintained an average score that exceeded the national average in every discipline.</td>
</tr>
<tr>
<td>Outcome #: 2</td>
<td><strong>Outcome Title:</strong> Class Specific Competencies</td>
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<tr>
<td>-------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>Outcome Type</strong> (choose one): X Discipline/Program □ SLO/GE □ Other □ If Student Learning Outcome/General Education (choose one): □ Communication □ Society and Culture/Diversity and Global Awareness □ Problem Solving/Critical Thinking □ Quantitative Reasoning □ Technology □ Interpersonal Skills/Leadership and Teamwork □ Aesthetics □ Values and Ethics □ Information Management □ Personal Development and Responsibility</td>
<td></td>
</tr>
<tr>
<td><strong>Outcome Description:</strong> Demonstrate entry-level MLT skills in the following clinical laboratory areas: Blood Bank, Chemistry, Hematology, Immunology, Microbiology, Urinalysis/Body Fluids, and Laboratory Operations. This will be assessed using the national certification ASCP exam scores in each category. Blood Bank will be assessed this year. Each category is also further broken down into 2-4 subcategories that will be assessed individually.</td>
<td></td>
</tr>
<tr>
<td><strong>Benchmark for success</strong> 1) Please specify what percentage of the sample size is expected to meet or exceed your benchmark. 2) What is the rationale for choosing this measure?</td>
<td></td>
</tr>
<tr>
<td>To assess outcome #2, 100% of the students will be required pass the ASCP exam in Blood Bank with a minimum score of 400 points.</td>
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<tr>
<td><strong>Description of assessment process:</strong> 1) What assessment methods were used to measure this outcome (i.e. pre/post test, portfolio review)? 2) How do these methods show students are learning? 3) What frequency is this outcome being measured (i.e.: each semester, yearly, every other year, etc.) and why? 4) How many students made up the sample size?</td>
<td></td>
</tr>
<tr>
<td>Outcome #2 will be assessed utilizing the MLT student’s scores in the Blood Bank discipline category of the ASCP exam. This category is further broken down into 4 subcategories – ABO/Rh, Antibody screen and identification, Cross match and special tests, and Blood donation, transfusion therapy, transfusion reactions and HDN.</td>
<td></td>
</tr>
<tr>
<td><strong>Results</strong> What were the results of the assessment process? (List results for each method, if more than one were used.)</td>
<td></td>
</tr>
<tr>
<td>A chart showing the success rate for the Blood Bank discipline is show in chart 6 in part 3 of this report.</td>
<td></td>
</tr>
<tr>
<td><strong>What did the department learn?</strong> 1) How did group performance compare to the benchmark? 2) How does the data compare to the previous year, if applicable? 3) If multiple measures were used, how do they compare to each other?</td>
<td></td>
</tr>
<tr>
<td>Given that 100% of the students (n=17) passed the Blood Bank discipline by a score of 400 points or more. The MLT program score was higher than the national average in each section except “Crossmatch/Special Tests”.</td>
<td></td>
</tr>
<tr>
<td><strong>Student performance summary</strong> 1) Based on the findings, how does the department rate student performance in regards to this outcome (strong, weak, or neutral)? 2) How does this assessment affect plans for this coming year in terms of curricula, teaching strategies, and assessment methods?</td>
<td></td>
</tr>
<tr>
<td>The department rates the student performance on the MLT ASCP national exam in Blood Bank as strong. For the coming year, more time will be spent specifically on crossmatches and special tests in Blood Banking.</td>
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<tr>
<td>Outcome #: 3</td>
<td>Outcome Title: Term Paper</td>
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<tr>
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</tbody>
</table>

**Outcome Type (choose one):**
- [x] Discipline/Program
- [ ] SLO/GE
- [ ] Other

If Student Learning Outcome/General Education (choose one):
- [x] Communication
- [ ] Society and Culture/Diversity and Global Awareness
- [ ] Problem Solving/Critical Thinking
- [ ] Quantitative Reasoning
- [ ] Technology
- [ ] Interpersonal Skills/Leadership and Teamwork
- [ ] Aesthetics
- [ ] Values and Ethics
- [ ] Information Management
- [ ] Personal Development and Responsibility

**Outcome Description:**
Incorporate a general education outcome by having MLT students illustrate English composition skills and communication by successfully writing a term paper on a hematology or coagulation condition. This will be accessed using a term paper rubric which outlines the criteria for the paper.

**Benchmark for success**
1. Please specify what percentage of the sample size is expected to meet or exceed your benchmark.
2. What is the rationale for choosing this measure?

**Description of assessment process:**
1. What assessment methods were used to measure this outcome (i.e. pre/post test, portfolio review)?
2. How do these methods show students are learning?
3. What frequency is this outcome being measured (i.e.: each semester, yearly, every other year, etc.) and why?
4. How many students made up the sample size?

**Outcome #3 will be accessed using the term paper rubric which outlines the criteria for the paper.**

<table>
<thead>
<tr>
<th>Results</th>
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<tbody>
<tr>
<td>What were the results of the assessment process? (List results for each method, if more than one were used.)</td>
</tr>
<tr>
<td>The chart showing the success rate of the students in writing the term paper is shown in chart 7 in part 3 of this report. 62% (18 of 29) of students achieved a score of 85% or better. 38% of students received a score of &lt;85%. See chart 7 in part 3 of this report.</td>
</tr>
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<td>1) How did group performance compare to the benchmark?</td>
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<td>2) How does the data compare to the previous year, if applicable?</td>
</tr>
<tr>
<td>3) If multiple measures were used, how do they compare to each other?</td>
</tr>
<tr>
<td>Eleven of the twenty-nine students (38%) scored less than the benchmark set at 85%. This is comparable to the data from last year. This outcome will be assessed again next year and the benchmark will hopefully be achieved.</td>
</tr>
</tbody>
</table>

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<td>1) Based on the findings, how does the department rate student performance in regards to this outcome (strong, weak, or neutral)?</td>
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<td>2) How does this assessment affect plans for this coming year in terms of curricula, teaching strategies, and assessment methods?</td>
</tr>
<tr>
<td>The department rates the student performance on the term paper as neutral. The term paper will be assigned again this year as part of the Hematology/Coagulation curriculum. More time will be spent outlining the process for writing a scientific term paper in hopes to meet the benchmark set forth. Also, the students will be required to utilize the Writing Center/Student Success Center on-campus in order to complete the paper. This outcome will be assessed again next year.</td>
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</tbody>
</table>
Part 2: Current Academic Year Assessment Plan

- Your program may wish to examine how retention differs among sections of an important course or you may choose to do an analysis of grade inflation across courses within your program/discipline. Such items aren’t truly student outcomes, but they certainly affect learning. As such, these outcomes will be classified as "Other" in the summary you create next year. (Measuring such outcomes is purely optional.)
- Two or more instruments of measuring an objective may provide greater clarity and validity, but only one is required. The department or program makes the decision. The Program Assessment committee and deans are available for consultation.
- In the past, some programs have been identified purely by prefix or in some cases by the type of section offered. Sometimes, a very limited pool of students have been available for such a program to assess, or the program lacks full-time faculty to plan, assess, and report outcomes. If your program has such difficulties, please contact either the Program Assessment committee’s chair or your School's Program Assessment committee representative. We will work with you to find a solution.
- CTE programs with external accreditation may use the accreditation report to in addition or in lieu of these forms, please contact the Program Assessment committee representative if this format is desired. In absence of this contact, these forms are expected.
- Outcomes are to be measured annually. Exceptions are made with VPI approval for outcomes that clearly need a less (or more) frequent review.

Outcome minimums

- At least two outcomes are to be program/discipline-related.
- At least two outcomes are to be General Education in nature. One General Education outcome must be continued from the prior year to develop a historical trend. General Education outcomes need to be assessed and reported annually, regardless of the frequency of reporting for other outcomes.
- Both outcomes above are classified as "student learning" outcomes, requiring benchmarks and analysis. It is strongly recommended that you use the table provided in Part 1 of this report for this function. Definitions and examples of these outcomes are provided in Appendix A at the end of this document. Your Program Assessment committee is available to assist.
- An assessment report is requested annually. Such a report may only consist of a report on General Education outcomes and a plan summarizing where your program is in an assessment with multi-year frequency.
Current Academic Year: 2010 – 2011

Intended Learning Outcomes (only include if they differ from those noted in Part 1)
    <replace this text with outcomes; please see Addendum A for more information about learning outcomes>

Assessment Method(s) (only include if they differ from those noted in Part 1)
    <replace this text with methods; please see Addendum B for more information about assessment methods>

Benchmarks (only include if they differ from those noted in Part 1)
    <replace this text with benchmarks; please see Addendum C for more information about benchmarks>

Have you submitted a separate budget worksheet? (Choose by bolding; for information about this worksheet, please refer to the specific budgeting e-mail sent by the committee chairperson.)
    Yes    No

Please submit this report (including both last year's summary and this year's plan) in a Word document to the Program Assessment committee chairperson (Cheyne Bamford: cheyne.bamford@arapahoe.edu). If you have any questions about the process, please contact the chairperson.