

**Medical Laboratory Sciences BS Academic Program  
Assessment of Student Learning Outcomes  
The University of New Mexico**

**A. College, Department and Date**

- 1. College: *School of Medicine-Health Sciences Center*
- 2. Department: *Pathology*
- 3. Date: *11/21/2008*

**B. Academic Program of Study**

*B.S., Medical Laboratory Sciences*

**C. Contact Person(s) for the Assessment Plan**

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**D. Broad Program Goals & Measurable Student Learning Outcomes, 1/2/3**

MLS Competencies and Student Learning Objectives	UNM Student Learning Outcomes		
	Knowledge	Skills	Responsibility
<b>A. Knowledge</b>			
1. Identify, define and apply the scientific principles and knowledge necessary for the competent practice of laboratory medicine	X	X	
2. Differentiate physiologic from pathophysiologic states of various patient analyzed samples	X		
<b>B. Laboratory Skills</b>			
1. Analyze all patient samples with accuracy and precision in a timely manner	X	X	
2. Gather additional laboratory data and apply problem-solving skills to solve problem results/discrepancies	X	X	X
<b>C. Diagnostic ability</b>			
1. Interpret patient laboratory findings in health and disease	X	X	X
<b>D. Communication skills</b>			
1. Demonstrate effective communication behaviors and skills with colleagues in program and clinical rotation sites		X	X
2. Work effectively with others as a member/leader of a hospital team		X	X
<b>E. Professionalism and ethics</b>			
1. Define and apply ethical principles in the diverse and complex context of laboratory medicine	X	X	X

## E. Assessment of Student Learning Plan

	<i>i &amp; ii - Measures of Assessment, Direct</i>	<i>iii - Criteria for Success</i>
<b>Knowledge</b>		
A-1. Identify, define and apply the scientific principles and knowledge necessary for the competent practice of laboratory medicine	<ul style="list-style-type: none"> <li>• Written (MCQ, supply answer) and performance exams</li> <li>• Faculty assessments</li> <li>• Course grades</li> </ul>	Mastery Goal: 90% student success, first attempt
A-2. Differentiate physiologic from pathophysiologic states of various patient analyzed samples	<ul style="list-style-type: none"> <li>• Written (MCQ, supply answer) and performance exams</li> <li>• Faculty assessments</li> <li>• Course grades</li> </ul>	Mastery Goal: 80% student success, first attempt
<b>Laboratory Skills</b>		
B1. Analyze all patient samples with accuracy and precision in a timely manner	All of the 5 major clinical areas will test students with practical unknowns. The students will: <ul style="list-style-type: none"> <li>• Assess unknowns with accuracy and precision +/- 2SD from known values</li> <li>• Accurately analyze lab data for discrepancies and solve them using critical pathways given in laboratory</li> <li>• Perform all required skills in the clinical site on the clinical skills list</li> </ul>	Mastery Goal: 90% student success, first attempt
B-2. Gather additional laboratory data and apply problem-solving skills to solve problem results/discrepancies		
<b>Diagnostic ability</b>		
C-1. Given laboratory results in any of the 5 major clinical areas, accurately interpret data and predict follow up testing	<ul style="list-style-type: none"> <li>• Written (MCQ) and performance exams</li> <li>• Laboratory interpretations of given lab results</li> <li>• After interpretation, predict follow-up/reflex testing for patient</li> </ul>	All students must meet minimum performance standards before graduating from program
<b>Communication Skills</b>		
D-1. Demonstrate effective communication behaviors and skills with colleagues in program and in clinical rotation sites	<ul style="list-style-type: none"> <li>• Faculty and Preceptor narratives</li> <li>• Professional Development assessment by clinical preceptors</li> <li>• Professional Development assessment by faculty</li> </ul>	All students must meet minimum performance standards
D-2. Work effectively with others as a member/leader of a hospital team	<ul style="list-style-type: none"> <li>• Clinical preceptor narratives</li> <li>• Professional Development assessment by clinical preceptors</li> </ul>	All students must meet minimum performance standards
<b>Professionalism and Ethics</b>		
E-1. Define and apply ethical principles in the diverse and complex context of laboratory medicine	<ul style="list-style-type: none"> <li>• HIPPA testing on-line through UNM</li> <li>• Faculty and Preceptor Evaluation</li> <li>• Professional Development Evaluation</li> </ul>	All students must meet minimum performance standards

### 2/3. How will learning outcomes be assessed? What, Who and When in Table

SLO	Means	D/I	Criteria for Success	Who	When
A1/A2	Grade Point Average Faculty Assessments Written MCQ Exams	D	90% of students will pass UNM classes with C or better on first attempt	Director/Faculty of Program	Every semester (3x/year)
A1/A2	ASCP or NCA Exam Results	D	80% of students will pass national exams on first attempt	ASCP/NCA	Testing must be done within 6mos or graduation from program
B1/B2	Required Skills Lists provided by program to Clinical rotation sites	D	Likert Scale 3 (average) or above on all required skills	Faculty of Program	After 18 weeks of student clinical rotation
D1/D2/E1	Professional Development Assessment by faculty and by clinical preceptors	D	Likert Scale 3 (average) or above on all professional development areas	Clinical Rotation Preceptors	After 18 weeks of student clinical rotations
C1/D2	Survey	I	>90% alumni are employed	Administrative Assistant of Program	Every 6 months
D1/D2/E1	Employer Survey	I	>80% satisfaction by employers	Administrative Assistant	Every year
D1/D2/E1	Student Surveys: Pre Professional; Pre Clinical, Clinical and Alumni	I	>75% satisfaction	Faculty and Director of the Program	Every year

### 4. What is the unit's process to analyze/interpret assessment data and use results to improve student learning?

The Department of Pathology requires:

1. Yearly self assessment for all faculty
2. Yearly Goals and Objective reviews for all faculty
3. Yearly assessment of past year G&O for all faculty
4. Review of Programs yearly achievements by the Director at an Annual Review Faculty meeting/Retreat

The MLS BS/MS Program is required to be very specific about our goals and objectives and if we achieved them, why or why not each year in January for the previous year. To prepare for this review, the MLS Program has two preliminary meetings in late December. They are:

1. Faculty of the UNM MLS Program
2. Our Advisory Committee made up of clinical preceptors, our medical director, program director and all faculty

The process of these meetings is very structured:

1. The Director of the MLS Program takes all of the data from our surveys (indirect measures) and from our grade analysis and organizes all data into a yearly report
2. UNM faculty meet, look at assessment, suggest solutions to any problems, implement any quick fixes and then call a meeting of the Advisory Committee
3. The Advisory Committee gets a copy of the report and any action items that the faculty has decided on. We then meet and the Advisory Committee adds their suggestions for solutions to any of the problems
4. The Director then processes the information, suggestions and follow-ups, puts all of the material into final yearly report that is sent to the Pathology Chair for his/her suggestions.
5. Any suggestions from the Chair are then re-evaluated by the faculty, and action items are again addressed.
6. Lastly, the yearly report is given to the Annual meeting/retreat for their final comments.
7. A follow-up conference is done, if necessary, to address any outstanding items to improve the program.