

**Clinical Laboratory Science - Master's Degree
Plan for Assessment of Student Learning Outcomes
The University of New Mexico**

A. College, Department and Date

- 1. College: *UNM Health Sciences Campus - School of Medicine*
- 2. Department: *Pathology-Medical Laboratory Sciences Program*
- 3. Date: *November 21, 2008*

B. Academic Program of Study

M.S., Clinical Laboratory Science

C. Contact Person(s) for the Assessment Plan

Leslie Danielson, PhD: Director of the MLS Program; ldanielson@salud.unm.edu

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

MS MLS Competencies and Student Learning Objectives	UNM Student Learning Outcomes		
	Knowledge	Skills	Responsibility
A. Knowledge and application			
1. Identify and define academic and clinical skills necessary in laboratory medicine education field	X	X	
2. Identify and define academic and clinical skills necessary for supervision of research or clinical laboratories	X	X	
3. Apply scientific method and demonstrate scholarly inquiry using research fundamentals	X	X	
B. Critical thinking			
1. Critically assess and troubleshoot clinical, research or education problems	X	X	X
2. Accurately interpret patient results and prescribe follow up testing	X	X	X
C. Communication skills			
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
D. Professionalism and ethics			
1. Define and apply ethical principles in the diverse and complex context of laboratory medicine	X	X	X
2. Utilize local/national resources to become involved in service activities consistent with personal development goals and promotion of health as an integral component of the community.	X	X	X

E. Assessment of Learning Outcomes Measures

	<i>i & ii - Measures of Assessment, Direct</i>	<i>iii - Criteria for Success</i>
Knowledge		
A-1. Identify and define academic and clinical skills necessary in laboratory medicine education field	<ul style="list-style-type: none"> • Written (MCQ, supply answer) and performance exams • Faculty assessments • Course grades • Required skills list 	90% student success, first attempt
A-2. Identify and define academic and clinical skills necessary for supervision of research or clinical laboratories		
A-3. Apply scientific method and demonstrate scholarly inquiry using research fundamental	Faculty committee review and successful: <ul style="list-style-type: none"> • Research proposal • Project final report • Formal presentation 	Successful capstone research project is a graduation requirement for 100% of students
Critical Thinking		
B-1. Critically assess and troubleshoot clinical, research or education problems	<ul style="list-style-type: none"> • Written (MCQ and short answer) and practical exams • Faculty and Laboratory assessments • Project supervisor assessment 	90% student success, first attempt
B-2. Accurately interpret patient results and proscribe follow up testing		
Communication Skills		
C-1. Demonstrate effective communication behaviors and skills with colleagues in program and in clinical rotation sites	<ul style="list-style-type: none"> • Faculty and Preceptor narratives • Professional Development assessment by clinical preceptors • Professional Development assessment by faculty 	All students must meet minimum performance standards
C-2. Work effectively with others as a member/leader of a hospital team	<ul style="list-style-type: none"> • Clinical preceptor narratives • Professional Development assessment by clinical preceptors 	All students must meet minimum performance standards
Professionalism and Ethics		
D-1. Define and apply ethical principles in the diverse and complex context of laboratory medicine	<ul style="list-style-type: none"> • HIPPA testing on-line through UNM • Faculty and Preceptor Evaluation • Professional Development Evaluation 	All students must meet minimum performance standards
D-2. Utilize local/national resources to become involved in service activities consistent with personal development goals and promotion of health as an integral component of the community.	<ul style="list-style-type: none"> • Assessment of professional development by faculty in service activities 	

How will learning outcomes be assessed (who, what when and where and criteria for success)?

SLO	Means	D/I	Criteria for Success	Who	When
A1	Grade Point Average Written MCQ and short answer exams	D	B or better in UNM classes on first attempt	Director/Faculty of program	Every semester
A2	Required skills list	D	80% or better on list evaluation	Laboratory Preceptor/ Director of the program	Every semester
A2	Preceptor Evaluation	D	80% or better on preceptor evaluation	Laboratory Preceptor/ Director of the Program	Every semester
A3	Successful proposal of capstone project	D	80% or better on the capstone project rubric	Director/Faculty committee	Project will be due at the end of 2 yrs
B1	Problem Based Learning: Critical Thinking/Professionalism Course	D	B or better	Director/Faculty of program Tutor	Every year this course is given
C1	Professional Development	D	80% or better on professional development evaluation	Faculty of program Director of program Laboratory preceptor	Project will be due at the end of 2 yrs
C2	Survey Assessment	I	3 or better on Likert scale for preceptor/home lab evaluation	Preceptor Laboratory staff	Every year
D1	HIPPA testing	D	75% or better on the on-line training module/yearly	UNM Learning Central	Every year this must be updated
D2	Survey of profession/local and national resources	I	Must have at least one community based project/professional society involvement	Faculty and Director of program	Immediately before student graduation

What is the unit's process to analyze/interpret assessment data and use results to improve student learning? The MS program will 'nest' in the same evaluation cycle as the BS Program.

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 takes all of the data from our surveys (indirect measures) and from our grade analysis and capstone project (direct measures) and analyzes all data into a yearly report
2. UNM faculty meet, look at assessment, suggest solutions to any problems, implement any quick fixes and then calls 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.