



Medical Laboratory Technology Program

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Summary of findings from last external review:

The self-study report was submitted to NAACLS in Spring 2018; followed by the response to the self-study review in summer 2018; site visit in fall 2018; response to site visit review in early spring 2019; RCAP review in March 2019; board award granted in May 2019.

The MLT Program was granted reaccreditation for five years until April 30, 2024.

Site Visit Report:

Areas of Strength:

Program Director is highly qualified, energetic, flexible, and passionate about the MLT program.

Program meets the needs of the health care community and allows growth in medical laboratories, as it supplies qualified, entry level candidates

Involved advisory committee with good input into program curriculum, outcomes and assessments.

University lab is spacious, well equipped, and accessible to students

Area of Concern:

One full time faculty and one part time distant online instructor are not sufficient for a program with two entry points. The program director serves as lab instructor for all courses and some face-to-face lectures, in addition to program administration and clinical coordination for two cohorts of students in Fall and Spring semester. Because of this, she is unable to have regular and consistent contact with clinical affiliates and limited or no time for recruitment of new students. Long term planning of programmatic needs, such as increasing graduate participation in sitting for the BOC cannot be accomplished within the time frame of the current teaching/administration schedule.

The previous MLT Program Review was submitted in Fall 2016. No official Curricula Committee (CC) Report regarding the said Program Review was found in the UNM-G website as of this writing. However, the CC Chair and Member discussed the following concern with the MLT Program Director immediately after the PR was tabled by the Committee in October 2016: the total number of credits (71 cr) for AS MLT exceeds the ideal number of 60-61 credits.

After several meetings and consultations with the Committee, Division Chair, MLT Advisory Board, NAACLS, UNM MLS, and per the new state requirements, we're now working on a new MLT curriculum.

The University of New Mexico – Gallup Medical Laboratory Technology Program develops *lifelong learners to be clinically competent and culturally sensitive professionals* delivering diagnostic testing services to clients within our rural health care setting.

The UNM-

The MLT Program of the University of New Mexico - Gallup is dedicated to fulfilling the following components of the college's strategic plan:

1. Provide the opportunity for students to earn an Associate of Science Degree.
2. Provide the opportunity for students to prepare for employment and students

The MLT Programs sponsors and participates in community outreach events such as blood drives, community health fairs, bone marrow donor recruitment. These activities provide co-curricular actual experiences for students while learning the theoretical foundation in their MLT courses.



ENGL 1110 Composition I (ENGL110)	3cr
ENGL 1120 Composition II (ENGL120)	3cr
COMM 2120 Interpersonal Communication (CJ221)	3cr

For required courses, refer to the UNM Core Curriculum.

Choose 3 credits from

MATH 1220 College Algebra (MATH121)	3cr
MATH 1240 Pre-Calculus (MATH150)	3cr
MATH 1350 Introduction to Statistics (STAT145)	3cr

Choose 8 credits from

CHEM 1120 Introduction to Chemistry for Non-Majors Lecture and Laboratory (CHEM111)	4cr
CHEM 1215/1215L General Chemistry I for STEM Majors (CHEM121/123L)	4cr
CHEM 1225/1225L General Chemistry II for STEM Majors (CHEM122/124L)	4cr
CHEM 2120 Integrated Organic and Biochemistry (CHEM212)	4cr

Choose from

BIOL 1140/1140L Biology for Health Sciences (BIOL123/124L)	4cr
BIOL 1310/1310L Introduction to Human Anatomy and Physiology I (BIOL135/135L)	4cr
BIOL 1320 Introduction to Human Anatomy and Physiology II (BIOL200)	4cr

For required courses, refer to the UNM Core Curriculum.

HCHS 101 Phlebotomy 1cr

platelets, routine manual and automated methods, and correlation with pathologies.

Comprehensive current clinical study of bacteriology, mycology, and parasitology; macroscopic and microscopic identification; biochemical identification profiles; bacterial antibiotic susceptibility patterns; parasitic life cycles. Pathology and epidemiology. Introduction to rickettsias and viruses. Prerequisites: MLT 111 and MLT 211.

Theory, principles and procedures applicable to clinical chemistry. Focus on chemical analysis of blood and other body fluids using manual and automated techniques. Application to tests in the diagnosis of disease with review of abnormal physiology. Prerequisites: 111, 214, MATH 111 or 121, CHEM111 or 121.

Principles, procedures, and pathology for serology. Routine and advanced test procedures to identify and enumerate antibodies. Principles and procedures in Blood Banking. Introduction to genetics. Processing blood components for compatibility testing. Regulation dictated by AABB and FDA. Pre-/co-requisites: 111, 116, 214, 216, Math 121.

Supervised clinical practice in the clinical pathology department of affiliated hospitals. Field laboratory experience includes rotations through urinalysis, hematology, and chemistry. Prerequisites: 111, 116, and 214.

Continuation of MLT 271. Supervised clinical practice in the clinical pathology department of affiliated hospitals. Field laboratory experience includes rotations through blood bank, microbiology, advanced hematology, and serology.

Designed to integrate theory with MLT directed clinical practicum. A comprehensive and current review supplemented by reading assignments and questions on the following subjects: sample collection, coagulations, chemistry, microbiology, blood banking, serology, urinalysis, and calculations. Pre-/co-requisites: Students must have completed MLT 111, 112, 211, 214, 216, 219 and be concurrently enrolled in either MLT 271 or MLT 281.

Note: We are currently working on a new AAS MLT curriculum in compliance with the new state requirements.

The MLT Program's assessment plan is based on the benchmarks prescribed by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The national standards require us to assess the program based on graduation, placement, and certification rates. The data are collected every semester, but the outcome measures are calculated by the most recent three-year period. The MLT Program reviews the following:

Graduates will either find employment in the field or a closely related field (for those who seek employment), or continue their education within one year of graduation.	2, 3, 4	K	S	R	Placement rates	At least 70% of graduates will either find employment in the field or a closely related field (for those who seek employment), or continue their education within one year of graduation.	graduates
Program graduates who take the exam within the first year of graduation will pass the ASCP-BOC examinations.	1	K	S	R	Certification pass rates	At least 75% of graduates who take the exam within the first year of graduation will pass the ASCP-BOC examinations.	graduates

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 - Student will identify and explain the theory and principles behind medical laboratory procedures.
 - Student will explain specimen processing and handling procedures and criteria for rejection.
 - Student will recognize and resolve discrepancies in laboratory test results.
 - Student will demonstrate competency in performing laboratory tests.
 - Student will perform manual, automated, or semi-automated procedures in laboratory testing.
 - Student will perform quality control procedures in different areas of the laboratory.
 - Student will demonstrate ethical behavior in classroom and clinical settings including patient confidentiality.
 - Student will demonstrate effective communication and good interpersonal relationship among other students, didactic and clinical instructors, patients and staff in the academic and clinical settings.

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 - Students who have begun the final half of the program (clinical practicum) will go on to successfully graduate from the program.
 - Graduates will either find employment in the field or a closely related field (for those who seek employment), or continue their education within one year of graduation.
 - Program graduates who take n o()21(t)6

Fall 2018	43	489
Spring 2019	44	510
Summer 2019	13	56
Fall 2019	45	509
Spring 2020	35	429
Summer 2020	6	25
Fall 2020	33	331
Spring 2021	38	401

Argosy University, Atlanta, Georgia

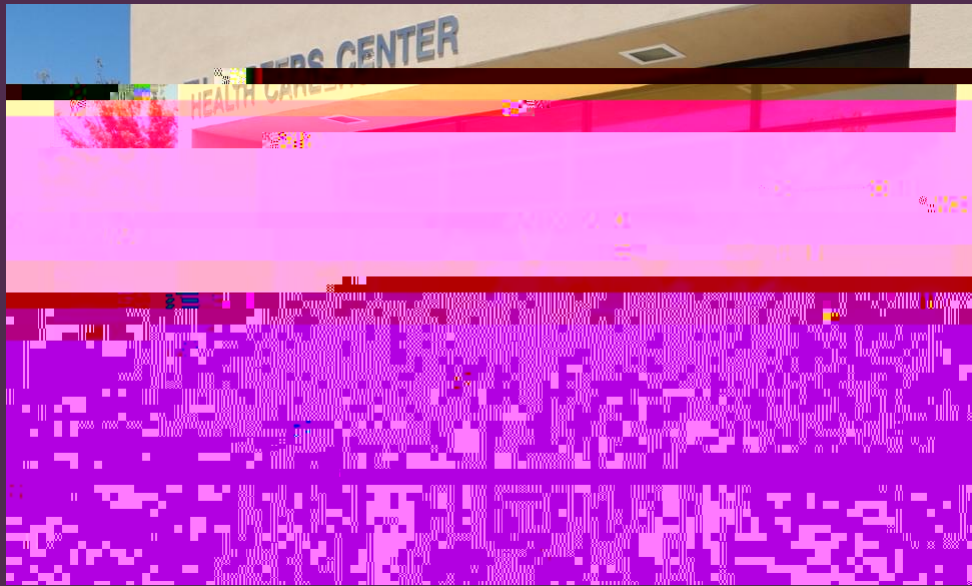
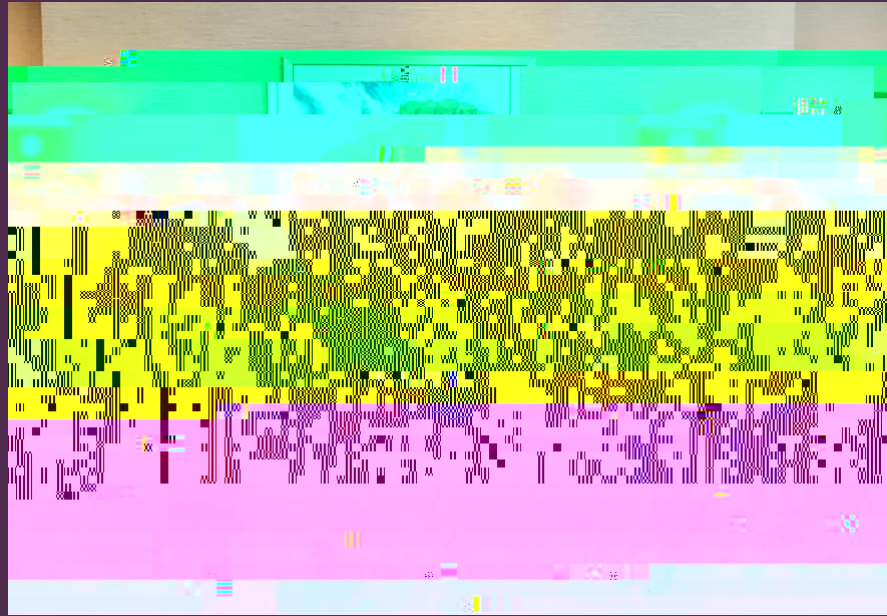
Gallup Indian Medical Center

Working in all areas which include pre-analytical, analytical and post analytical of all departments of the laboratory.

Rehoboth McKinley Christian Hospital

Working in all areas which include pre-

Shahrokh Safaeian, BS, MLT(ASCP)



The student teaching lab is stocked with supplies and reagents that allow instructors to perform demonstrations as well as student laboratory activities. These include demonstration materials, stock cultures and other





Above image:

Lab Workshop co-sponsored by the CDC, TMC and MLT Program in March 2018

Document 8: Program Comparisons

Stay close, go far.

UNM-Gallup MLT Program provides potential students the opportunity to obtain an Associate's degree and find employment locally.

The Program maintains a relatively small class size to ensure closer attention and to enhance instruction and learning especially in laboratory activities.

Students and graduates benefit most from the NAACLS-accredited MLT Program. Students receive instruction that meet national standards. All instructors are nationally certified. Graduates can transition smoothly to a Bachelor's Program in the US, and are eligible to take the ASCP Board of Certification exam.

There are currently only two AS or AAS MLT Programs in the state and one Bachelor's program (Medical Laboratory Sciences) at UNM Main Campus – all of which are accredited by NAACLS. UNM-Gallup offers an Associate of Science degree in MLT, whereas Central New Mexico Community College (CNM) offers an Associate of Applied Science degree in MLT and a Phlebotomy Technician Certificate. MLT graduates from both universities can transition into the BS MLS program at UNM Main Campus.

CNM's AAS MLT Program courses start in the fall term. A minimum of 61 credit hours is required to complete the degree which will take approximately 6 terms including summer. Each MLT course has a theory and lab component – theory courses are online and lab courses are in-person. Students complete two terms of didactic courses and one term of clinicals.

UNM School of Medicine's BS MLS Program requires 2 ½ pre-professional years in college followed by a 4-semester MLS-specific curriculum, including one semester of clinical practicum. The MLS program has two start dates, either in the spring or fall semester. Each MLS course is offered once per year, except for clinical rotation courses which are

offered in fall and spring. The Program has an articulation process with accredited MLT Programs.

The table below shows the number of faculty (full-time and part-time), and staff/student employee:

Program	# of Full-time Faculty	# of Part-time Faculty	# of Staff	Student Characteristics
UNM-G AS MLT	1	3	0	diverse
CNM AAS MLT	2	10	2	diverse
UNM Main BS MLS	3	2	2	diverse

The data above were obtained directly from the respective programs listed.

The student population for the listed programs are diverse in terms of racial/ethnic backgrounds, gender, location, age, etc.

As of 2021, there are 238 NAACLS-accredited MLT programs in the US. Laboratory science programs may offer a certificate, associate's, or bachelor's degree. They can also be either university-based or hospital-based. Graduates of certificate or associate's degree programs are referred to as Medical Laboratory Technicians (MLT) or Clinical Laboratory Technicians (CLT); and those who obtain a bachelor's degree are called Medical Laboratory Scientists (MLS) or Medical Technologists (MT) or Clinical Laboratory Scientists (CLS). There are also Master's degree programs for clinical laboratory sciences or related field. However, it wasn't until recently that there are now Doctorate programs specific for Clinical Laboratory Sciences.

Comparisons and statistics for regional and national clinical laboratory science programs can be found here:

<https://naacls.org/NAACLS/media/Documents/AnnualReport2021.pdf>

<https://www.medicaltechnologyschools.com/medical-lab-scientist/mlt-vs-mls>

The strengths of the MLT Program are the students and faculty themselves and the great support it receives from the EHHS Division, UNM-Gallup administration and of course, the clinical affiliates.

The most pressing challenges of the Program include hiring qualified instructors and finding clinical practicum sites who would be willing to train students. Student enrolment is also low during the pandemic.

A new AAS MLT program is in the works. We are enhancing our marketing strategies to recruit students by giving presentations to high schools and community outreach events.

We are also still actively recruiting potential full-time or part-time instructors. We will be reposting the job positions for both Lecturer and adjunct positions. We'll disseminate the information to local and st-

