

Program Overview: Associate of Applied Science, Medical Laboratory Technology

About This Major . . .

The AAS degree in Medical Laboratory Technology (MLT) leads to national certification as a Medical Laboratory Technician through the Board of Certification administered by American Society for Clinical Pathology.

Students in this major focus on the cellular and chemical analysis of blood and body fluids learned in theory, laboratory, and applied experience coursework

The program is five semesters in length. Essential learning and foundation courses are taken the first year and summer, the second year consists mainly of MLT program courses, followed by one semester of applied experience at an affiliated hospital in western Colorado. The majority of MLT courses are delivered in a blended format. Lecture is delivered online with lab sessions held on campus. All MLT courses are taken concurrently for each semester offered and in sequence.

Graduates of the program are mainly employed in medical labs found in hospitals, small clinics, physician offices, and large reference laboratories. Skills obtained in the program can also be used with various careers in the food and beverage industry, forensic labs, pharmaceutical labs, and biotechnology companies.

All CMU associate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning.

In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. demonstrate the theoretical knowledge and technical skills in the performance of routine laboratory testing. (Specialized Knowledge/Applied Learning)
2. demonstrate error recognition and the ability to integrate and interpret analytical data and establish a course of action to solve problems. (Critical Thinking)
3. communicate courteously and effectively with laboratory personnel, other health care professionals, patients, and the public. (Communication Fluency)
4. apply mathematical calculations and statistical methods to ensure the accuracy of laboratory test results. (Quantitative Fluency)
5. demonstrate laboratory practice standards in safety, professional behavior, and ethical conduct. (Specialized Knowledge/Applied Learning)

Program Highlights:

National Accreditation

The program meets the national educational standards through the National Accrediting Agency for Clinical Laboratory Sciences.

Flexible Learning

Blended program allows for learning opportunities during non-traditional school hours.

Applied Experience

Students apply the theoretical knowledge and technical skills learned with a clinical experience in a hospital laboratory.

Fast Track to Employment

Entry-level competencies are achieved in as little as five semesters.

Low Student to Faculty Ratio

Students get a one-on-one learning experience in a dedicated campus laboratory with contemporary medical lab equipment.



Program Requirements

A student must follow CMU graduation requirements for the degree by completing 72 semester credit hours, including 44 credits of medical laboratory technician coursework. See the “Undergraduate Graduation Requirements” in the catalog for additional graduation information. Students should work closely with a faculty advisor when selecting and scheduling courses prior to registration. In general, CMU’s programs of study are based on two curriculum groups:

1. Essential Learning

CMU’s Essential Learning program provides the foundation of skills and information that cuts across all fields of study and the support for advanced concepts that students will later encounter in their majors. Students also complete the Maverick Milestone and its co-requirement, Essential Speech. This pair of courses is a capstone experience where students integrate what they have learned from their foundation courses by making connections among diverse areas of knowledge. The capstone is also an opportunity for students to work with disparate ideas, a critical skill expected of all CMU graduates that will aid them in solving the complex and unscripted problems they will encounter in their personal, professional, and civic lives.

2. What You Will Study in This Major. . .

Foundation Courses

These courses provide the student with a background in chemistry and the human body which is applied toward studies in medical laboratory technology:

- Principles of Chemistry with Lab - or - General Chemistry with Lab
- Anatomy and Physiology I with Lab
- Anatomy and Physiology II with Lab

Medical Laboratory Technology Coursework

All students take combined theory and lab courses that focus on current laboratory disciplines, which are needed in order to become a generalist in the medical laboratory. These courses are followed by an applied experience in a hospital laboratory:

- 29 Credits in Theory and Lab
 - Phlebotomy
 - Clinical Immunology
 - Clinical Chemistry
 - Clinical Microscopy
 - Clinical Hematology and Coagulation
 - Clinical Microbiology I
 - Clinical Immunohematology
 - Clinical Microbiology II
- 15 Credits in Applied Experience

For more information about this major, go to: www.coloradomesa.edu/healthsciences/MedicalLaboratoryTechnology.html or contact the Academic Department Head for Health Sciences, 170 Maverick Center, 970.248.1398.