# MEDICAL LABORATORY TECHNICIAN (AAS)

Degree: Associate of Applied Science
Major: Medical Laboratory Technician
Program Code: 1641

The Medical Laboratory Technician (MLT) Program at Colorado Mesa University is five semesters in length. Students complete Essential Learning, Program Specific Requirements, and Other Lower Division Requirements courses during the first year and summer. The MLTP program is competitive and requires a separate application process with selective admission requirements and set application deadlines. Students apply in the spring of the first year. Once accepted, the program is completed in three semesters and all program-specific MLT courses are taken concurrently for each semester offered and in sequence.

During the second year, students are enrolled in MLT theory and lab courses only. The MLT theory courses are delivered in a blended format, both online and in person. Weekly lab sessions are held on campus two days a week. The final semester of the program occurs during the fall semester of the third year. During this semester, students perform a clinical internship at an affiliated hospital located in western Colorado

Students successfully completing the program will receive an Associate of Applied Science as a Medical Laboratory Technician. Graduates are eligible to become nationally certified Medical Laboratory Technicians by examination through the American Society for Clinical Pathology (ASCP).

For more information on what you can do with this major, visit Career Services' What to Do with a Major? resource.

All CMU/CMU Tech associate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, quantitative fluency, communication fluency, critical thinking, personal and social responsibility, and information literacy. 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. (Personal and Social Responsibility)
6. Identify, utilize, and cite various sources of relevant medical laboratory information. (Information literacy)

## Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

**To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options."** This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

## Institutional Degree Requirements

The following institutional degree requirements apply to all CMU and CMU Tech Associate of Applied Science (AAS) degrees. Specific programs may have different requirements that must be met in addition to institutional requirements.

- 60 semester hours minimum.
- Students must complete a minimum of 15 of the final 30 semester hours of credit at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A course may only be used to fulfill one requirement for each degree/ certificate.
- No more than six semester hours of independent study courses can be used toward the degree.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed 20 semester credit hours for an AAS degree.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Degree Requirements.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

### Specific to this program:

- 71 semester hours total for the AAS, Medical Laboratory Technician.

## Essential Learning Requirements

(16 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is an Essential Learning option and a requirement for your major, you must use it to fulfill the major requirement and make a different selection for the Essential Learning requirement.

| Code | Title | Semester Credit Hours |
|---|---|---|
| **Communication** | | |
| ENGL 111 | English Composition I-GTCO1 | 3 |
| ENGL 112 | English Composition II-GTCO2 | 3 |
| **Mathematics** | | |
| MATH 113 | College Algebra-GTMA1 | 4 |
| **Other Essential Learning Core Courses** | | |

| | |
|---|---|
| Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course | 3 |
| Select one Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course | 3 |
| **Total Semester Credit Hours** | **16** |

# Other Lower Division Requirements

| Code | Title | Semester Credit Hours |
|---|---|---|
| **Wellness Requirement** | | |
| KINE 100 | Health and Wellness | 1 |
| Select one KINA Activity course | | 1 |
| **Total Semester Credit Hours** | | **2** |

# Program Specific Degree Requirements

(53 semester hours, must earn a grade of "C" or better in each course unless otherwise noted. The following applied courses must be completed with a grade of "B" or higher: MLTP 180, MLTP 182, MLTP 250, and MLTP 252.)

| Code | Title | Semester Credit Hours |
|---|---|---|
| **Didactic Courses** | | |
| BIOL 209 & 209L | Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory | 4 |
| Select one of the following options: | | 5 |
| CHEM 121 & 121L | Principles of Chemistry-GTSC1 and Principles of Chemistry Laboratory-GTSC1 | |
| CHEM 131 & 131L | General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1 | |
| BIOL 210 & 210L | Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory | 4 |
| MLTP 105 | Introduction to Medical Laboratory Technology | 3 |
| MLTP 132 & 132L | Clinical Hematology and Coagulation and Clinical Hematology and Coagulation Lab | 4 |
| MLTP 138 & 138L | Clinical Immunology and Clinical Immunology Lab | 3 |
| MLTP 141 & 141L | Clinical Immunohematology and Clinical Immunohematology Lab | 3 |
| MLTP 142 & 142L | Clinical Microscopy and Clinical Microscopy Lab | 3 |
| MLTP 231 & 231L | Clinical Microbiology I and Clinical Microbiology I Lab | 4 |
| MLTP 232 | Clinical Microbiology II | 3 |
| MLTP 242 & 242L | Clinical Chemistry and Clinical Chemistry Lab | 4 |
| **Applied Courses** [1] | | |
| MLTP 180 | Applied Immunohematology [2] | 3 |
| MLTP 182 | Applied Hematology and Body Fluids [2] | 3 |
| MLTP 250 | Applied Chemistry and Serology [2] | 3 |
| MLTP 252 | Applied Microbiology [2] | 3 |
| MLTP 253 | Certification Exam Review | 1 |
| **Total Semester Credit Hours** | | **53** |

[1] These courses may only be taken by Program Director Approval.
[2] Must be completed with a grade of "B" or higher.

# Suggested Course Plan

| | | |
|---|---|---|
| **First Year** | | |
| **Fall Semester** | | **Semester Credit Hours** |
| ENGL 111 | English Composition I-GTCO1 | 3 |
| MATH 113 | College Algebra-GTMA1 (or Higher) | 4 |
| KINE 100 | Health and Wellness | 1 |
| KINA - Activity Course | | 1 |
| BIOL 209 & 209L | Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory | 4 |
| | **Semester Credit Hours** | **13** |
| **Spring Semester** | | |
| ENGL 112 | English Composition II-GTCO2 | 3 |
| Select one of the following: | | 5 |
| CHEM 121 & 121L | Principles of Chemistry-GTSC1 and Principles of Chemistry Laboratory-GTSC1 | |
| CHEM 131 & 131L | General Chemistry I-GTSC1 and General Chemistry Laboratory I-GTSC1 | |
| BIOL 210 & 210L | Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory | 4 |
| | **Semester Credit Hours** | **12** |
| **Summer Semester** | | |
| Essential Learning - Social and Behavioral Sciences, History, Natural Sciences, Fine Arts or Humanities course | | 6 |
| | **Semester Credit Hours** | **6** |
| **Second Year** | | |
| **Fall Semester** | | |
| MLTP 105 | Introduction to Medical Laboratory Technology | 3 |
| MLTP 138 & 138L | Clinical Immunology and Clinical Immunology Lab | 3 |
| MLTP 142 & 142L | Clinical Microscopy and Clinical Microscopy Lab | 3 |
| MLTP 231 & 231L | Clinical Microbiology I and Clinical Microbiology I Lab | 4 |
| | **Semester Credit Hours** | **13** |
| **Spring Semester** | | |
| MLTP 141 & 141L | Clinical Immunohematology and Clinical Immunohematology Lab | 3 |
| MLTP 232 | Clinical Microbiology II | 3 |
| MLTP 132 & 132L | Clinical Hematology and Coagulation and Clinical Hematology and Coagulation Lab | 4 |
| MLTP 242 & 242L | Clinical Chemistry and Clinical Chemistry Lab | 4 |
| | **Semester Credit Hours** | **14** |
| **Third Year** | | |
| **Fall Semester** | | |
| MLTP 180 | Applied Immunohematology | 3 |
| MLTP 182 | Applied Hematology and Body Fluids | 3 |
| MLTP 250 | Applied Chemistry and Serology | 3 |
| MLTP 252 | Applied Microbiology | 3 |
| MLTP 253 | Certification Exam Review | 1 |
| | **Semester Credit Hours** | **13** |
| | **Total Semester Credit Hours** | **71** |

# Advising and Graduation
# Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a degree. The suggested course sequencing outlines how students could finish degree requirements. Some courses are critical to complete in specific semesters, while others may be moved around. Meeting with an academic advisor is essential in planning courses and altering the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended degree(s).

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a degree and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

# Graduation Process

Students must complete the following in the first two months of the semester prior to completing their degree requirements:

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.