



Medical Laboratory Technician Program Frequently Asked Questions

Medical laboratory personnel (MLT, MLS, MLA) play a crucial role in the detection, diagnosis, and treatment of disease. Lab personnel obtain, prepare, examine, and analyze body fluids and cells. They look for bacteria, parasites, and other microorganisms; analyze for the chemical content of fluids; match blood for transfusion; and test for drug levels in the blood that show how a patient is responding to treatment. They perform analyses in the areas of microbiology, hematology, immunology, and biochemistry. Technologists use microscopes, cell counters, computerized instruments and other high-tech laboratory equipment in their work. The data they obtain plays a vital role in identifying and treating medical conditions. It is estimated 60-70% of all decisions regarding a patient's diagnosis, treatment, hospital admission, and discharge are based on test results produced by the medical laboratory team.

What is a Medical Laboratory Technician (MLT)?

Medical lab technicians perform a wide range of tests on patient samples, with the results used to diagnose and treat patients. They work in laboratory settings, often in hospitals or doctors' offices. The job outlook for MLTs is positive; 100% of CCC graduates find employment.

Academic Requirement: An MLT holds an Associate of Applied Science degree.

To learn more about the medical laboratory profession: <https://ascls.org/how-do-i-become-a-laboratory-professional/>

What is a Medical Laboratory Scientist (MLS)?

While similar, there are a few key differences between a medical lab scientist (MLS) and a medical lab technician (MLT). Both perform tests on biological samples, but the medical lab scientist has more education and skills and can perform higher-complexity laboratory testing. The MLS may have a supervisory role in the laboratory.

Academic Requirement: A medical laboratory scientist must possess a degree at the bachelor's level or above.

What is a Medical Laboratory Assistant (MLA)?

The medical laboratory assistant (MLA) is educated in specimen collection, transport, and processing of patient blood, urine, and other body fluids. MLAs may log and prepare patient samples, perform routine tests, and assist in the set-up, cleaning, and quality control processes for laboratory equipment.

Academic Requirement: Calhoun offers a 2-semester MLA **Short-term Certificate Program** that prepares individuals to sit a national exam to be certified as an MLA and/or Phlebotomist.

What about licensure?

Licensure is not required to work in a medical laboratory in Alabama. Most employers do require certification. Graduates of the CCC MLT program are eligible to obtain certification through the American Society for Clinical Pathology (ASCP). MLT certification ensures career mobility, and employers prefer MLTs with the credential, as it demonstrates knowledge attainment and a commitment to the profession and lifelong learning.

When does the MLT program begin?

A new class of twenty-four (24) MLT students begins each fall semester. The program is five consecutive semesters of MLT courses, taken in sequence. Classes meet on the Huntsville campus. Only students who have applied to the program and have been accepted are allowed to enroll in MLT courses.

Medical Laboratory Technician Program Course Sequencing		
Semester 1 - Fall		Credit Hours
MLT 121	Hematology	5
MLT 131	Laboratory Techniques I	4
MLT 181	Immunology	2
Semester 2 - Spring		
MLT 141	Diagnostic Microbiology I	5
MLT 151	Clinical Chemistry	5
EMS 100	Cardiopulmonary Resuscitation (optional)	1
Semester 3 - Summer		
MLT 142	Diagnostic Microbiology II	3
MLT 111	Urinalysis and Body Fluids	4
Semester 4 - Fall		
MLT 161	Integrated Laboratory Simulation	2
MLT 191	Immunochemistry	5
MLT 295	Clinical Practicum Microbiology	2
Semester 5 - Spring		
MLT 293	Clinical Seminar	2
MLT 294	Clinical Practicum Hematology & Urinalysis	2
MLT 296	Clinical Practicum Immunochemistry	2
MLT 297	Clinical Practicum Chemistry & Immunology	2
Total MLT Credits =		46
Total with General Education Hours =		70 - 71

MLT General Education Course Requirements		Credit Hours
ORI 110	Freshman Seminar	1
MTH 100	Intermediate College Algebra or higher MTH	3 - 4
ENG 101	English Composition I	3
BIO 201 BIO 220 BIO 103	Human Anatomy & Physiology I, or General Microbiology, or Principles of Biology I	4
CHM 104	Introduction to Inorganic Chemistry or higher CHM	4
PSY 200 SOC 200	General Psychology, or Introduction to Sociology	3
Speech Elective	SPH 106: Fundamentals of Oral Communication, or SPH 107: Fundamentals of Public Speaking	3
Humanities Elective	Art, Music, Theater, Religion, Philosophy, or Literature, but not a Foreign Language	3
Total =		24 - 25

If not already taken at the time of MLT enrollment, chemistry must be completed with a grade of C or > by the end of the 1st semester in the program and all other general education classes completed by the end of the 3rd semester. All general education and MLT courses must be taken and passed with a C or higher to graduate and be awarded the [Associate of Applied Science Degree in Medical Laboratory Technician](#).

Do I have to complete any or all of the general education coursework to apply to begin the program?

No. However, to promote success in the program, students are *strongly encouraged* to take all or most of the general education classes prior to application. Completion of the foundational classes helps ensure student accomplishment in the rigorous MLT program. **If CHM 104 is not completed before enrollment, it must be taken 1st semester.**

How do I apply to the MLT program?

Read the "**How to Apply**" instructions located on the program website. Note, there are several application requirements that you will need to prepare before submitting the application. The online application is open March - May to apply for the next cohort of students who will begin the fall semester.

What physical capabilities are required of a Medical Laboratory Technician?

Students enrolled in the MLT program are required to satisfy both academic and clinical requirements. The program has adopted a list of **Eligibility Criteria** to delineate the cognitive, affective, and psychomotor skills deemed minimally necessary for admission, progression, program completion, and for the provision of safe and effective client care. The Alabama Community College System endorses the Americans with Disabilities Act. If a student cannot meet the Eligibility Criteria, it is their responsibility to request appropriate reasonable accommodation through the Student Disability Services Office. The Eligibility Criteria are posted on the MLT website.

What expenses are involved in the MLT program?

In addition to tuition, health students have expenses related to the listed requirements below, plus textbooks and laboratory supplies. Approximate costs are discussed further in information sessions and program orientation.

HEALTH SCIENCES STUDENT REQUIREMENTS:

- Retain reliable transportation to and from the campus and assigned clinical education facilities.
- Comply with a dress code that includes an assigned uniform
- Undergo a health examination, TB screening, and validate immunity to specified infectious diseases
- Submit proof of current certification in basic life support (CPR) at the healthcare provider level
- Purchase low-cost malpractice insurance through the CCC Health Sciences division
- Submit to a background check by a designated vendor
- Undergo drug and alcohol testing by a designated vendor

MLT Estimated Costs*

2026 Tuition	
General Education	\$4,500
MLT Courses	8,500
MLT textbooks	1,000
Supplies	200
Uniforms	200
Drug & Alcohol Screening	75
#Background Check	125+
^Physical Exam	150+
Estimated Total	\$15,500

*Costs subject to change without notice.

#Background check cost is dependent on number of places lived past 10-15 years.

^Physical exam costs are dependent on health insurance coverage, location of exam, and need for immunizations.

Do I need a background check, physical examination, or CPR certification to apply to the MLT Program?

None are needed to apply. Policies regarding the background check and drug and alcohol screening are provided during program orientation. Faculty will instruct enrolled students when to proceed with these requirements in the 2nd semester of the program. Do not undertake until you are directed to do so. A background check with findings or a positive drug screen may render a student ineligible to participate in clinical experiences, which may result in dismissal from the program.

What is involved in MLT lab courses?

MLT classes include on-campus laboratory practice for learning skills. Students receive training in safety policies before working in the lab where there is potential for exposure to biohazardous agents, blood-borne pathogens, and infectious waste. Immune-compromised individuals, those who are pregnant or may become pregnant, and individuals living with or caring for an immune-compromised individual are advised to consult a physician regarding additional safety measures needed for lab participation. Students practice phlebotomy procedures on each other over the duration of the program. Waivers are available within the MLT Student Handbook.

What are “clinical practicum experiences”?

Students are assigned to medical laboratories for clinical practice rotations in their final 2 semesters to apply the knowledge and skills acquired in the classroom and campus laboratory. In the lab, the student works with experienced Medical Laboratory Technicians and Scientists. During practicums, students are assigned to a laboratory 4 or 5 full days each week, usually Monday through Friday. Clinical assignments are based on student learning needs, not geographic proximity to the home, work, or family commitments. Students must have reliable transportation, flexibility in their personal schedules, and the willingness to commute to clinical sites throughout northern Alabama and southern Tennessee.

Sample schedule for the MLT classes:

The first 3 semesters of MLT coursework are provided on the Huntsville campus in the classroom and laboratory setting. All students attend mid-day lectures and are assigned to either morning or afternoon lab sessions. The 4th and 5th semester students attend on-campus classes and clinical rotations in assigned healthcare facilities.

The following is a schedule example, subject to change. It does not include all commitments.

1 st semester - Fall			
Class	Title	Lecture	Lab Sections - Morning or Afternoon
MLT 131	Laboratory Techniques (Mini-mester 1)	Wednesday & Thursday 12 - 2 PM	Thursday 8:00 –11:30 OR 2:30 – 6:00
MLT 121	Hematology (Full Semester)	Tuesday 12 – 2 pm	Tuesday 8:00 –11:30 OR 2:30 – 6:00
MLT 181	Immunology/Serology (Mini-mester 2)	Thursday 12 – 2 pm	Thursday 8:00 –11:30 OR 2:30 – 6:00
2 nd semester - Spring			
MLT 141	Diagnostic Microbiology I	Thursday 12:00 - 2:00 pm	Thursday 8:00 –11:30 OR 2:30 – 6:00
MLT 151	Clinical Chemistry	Tuesday 12:00 - 2:00 pm	Tuesday 8:00 –11:30 OR 2:30 – 6:00
3 rd semester - Summer			
MLT 142	Diagnostic Microbiology II (Mini-mester 1)	Tues. & Thur. 11:30 am-1:30 pm	Tuesday & Thursday 8:00 –11:00 OR 2:00 – 5:00
MLT 111	Urinalysis / Body Fluids (Mini-mester 2)	Tues. & Thur. 11:30 am-1:30 pm	Tuesday & Thursday 8:00 –11:00 OR 2:00 – 5:00

Will I be able to work and attend the MLT program?

The program requires commitment. Classes and clinical experiences are scheduled during the day, Monday through Friday, and student attendance is required. Successful students report studying approximately two hours for each contact hour of lecture classes per week. Sound study skills and time management are critical to achievement. It is recommended that students work no more than 20 hours per week.

The *Catalog* says the program grading policy is different. Why?

Calhoun Health Science grading policies are more stringent than the general college grading policy. To pass an MLT course, the student must receive a grade of 75% or greater. Students who do not receive a minimum of 75% as a final grade in an MLT course may not be allowed to progress in the program. A continuation plan will be discussed with the MLT Program Director. Healthcare careers require high standards to ensure quality patient care, and having a strict grading policy helps to confirm student knowledge and competency prior to entry into the field.

Is the MLT Program accredited?

Yes, the program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), www.naacls.org, 5600 N. River Rd, Suite 720 Rosemont IL 60018-5119; telephone: 773.714.8880

MLT graduates are eligible to apply to obtain certification through the American Society for Clinical Pathology (ASCP) or American Medical Technologist (AMT). MLT certification is required for licensure in many states and employers prefer MLTs with this credential as it demonstrates knowledge attainment and a commitment to the profession and lifelong learning. Certification is not required for completion of the program.

To learn more about the Board of Certification (BOC) exams:

American Society for Clinical Pathology
<https://www.ascp.org/content>

American Medical Technologists
<https://www.americanmedtech.org/>