

# MEDICAL LABORATORY TECHNICIAN, A.A.S.

Students completing the MU medical laboratory technician (AAS-MLT) curriculum can earn the Associate in Applied Science degree. The curriculum is designed so that a student may complete the technical portion of the curriculum in three semesters: two semesters of on-campus instruction, and one semester of an in-hospital, 15-week clinical practicum. The clinical practicum semester may be either in summer or fall, depending on availability of clinical sites and completion of all required coursework. Students declare their major as A.A.S. in MLT upon admission to the university, then seek admission into Year Two CLS courses if they meet required criteria.

## Career Description and Opportunities

Certified medical laboratory technicians are prepared to perform approximately 90% of the routine diagnostic work in a clinical laboratory. They typically work under the supervision of a medical laboratory scientist. They collect blood samples and do a wide variety of blood and urine tests using microscopes, spectrophotometers, electronic counters, and other laboratory instruments. They also perform crossmatches for blood transfusion, culture pathogenic bacteria, and perform blood clotting tests. Besides working in hospital laboratories, medical laboratory technicians work in doctors' offices, clinics, and in industry. Certified clinical laboratory technicians are in great demand. Completion of a NAACLS-accredited MLT program is required for admission to the bachelor's degree in medical laboratory science at Marshall University. Upon completion of the MLT curriculum, the student is eligible to take a certification examination offered by the American Society of Clinical Pathologists (ASCP).

## Admission and Progression

Entry to the MLT program involves completion of academic prerequisites with acceptable grades, application to the Clinical Laboratory Sciences Department, and competitive selection by an admissions committee. An applicant for the MLT program should expect to have earned an overall Grade Point Average (GPA) of 2.5. Students who fall into the category of having to take CHM 111 Foundations of Chemistry as a prerequisite to CHM 211 Principles of Chemistry I due to ACT scores must have successfully completed CHM 111 Foundations of Chemistry with a C or greater prior to being accepted into the MLT program. Students must be able to complete all required coursework, including clinical rotations, for the MLT program within 16 months of the August admission date of the program in order to be admitted to the program.

The number of available class spaces is determined annually by the MLT program director, based upon anticipated instructional resources both on campus and in affiliated hospital laboratories. The class sizes range between 12 and 18 per year. Admission of qualified applicants is not guaranteed and is dependent on availability of resources; qualified applicants that are not accepted will be placed on a waiting list for admission into the program and notified in writing of their status.

Students apply for admission during their freshman year by completing and submitting a transcript review form, two letters of reference, and a letter of application to the MLT Program Director between March 1 and May 31 for admission to the following semester.

Late applications will be considered as class size permits. Transcript review forms and example letters are available at the Clinical Laboratory Sciences Department and on the department website ([www.marshall.edu/clinical-lab-science](http://www.marshall.edu/clinical-lab-science) (<http://www.marshall.edu/clinical-lab-science/>)).

The MLT program admissions committee reviews letters of application, college-level coursework, and letters of reference. Qualified applicants are selected primarily by Grade Point Average on courses in the CLS curriculum. Applicants who expect to complete all admission requirements before fall classes begin may be admitted conditionally. The committee selects students to fill available class spaces, then develops a ranked waiting list, if applicable. Letters are mailed to all applicants by June 15 notifying them of the admission committee decision.

Accepted students who are not properly registered or who are absent during the first week of regular classes without prior approval of the CLS program director will lose their space to a wait-listed applicant.

 - General Education Course

 - Milestone course: a key success marker for your major. See your advisor to discuss the importance of this course in your plan of study.

## Course Requirements

Progression through the MLT program is contingent upon satisfactory academic performance. Once admitted, MLT students are required to remain continuously enrolled in such a way as to complete the CLS course sequence with their class.

Code	Title	Credit Hours
CLS 230	Clinical Hematology	4
CLS 210	Clinical Immunohematology	4
CLS 220	Clinical Microbiology	4
CLS 255	Clinical Lab Problems	3
CLS 270	Clin Practicum Hematology	3
CLS 271	Clin Practicum Chemistry	3
CLS 272	Clin Pract Immunohematol	3
CLS 273	Clin Pract Microbiology	3

If a student should not successfully progress with his or her class, he or she will be dropped from the MLT program and will be notified of that status by letter. Decisions regarding readmitting students to pre-clinical CLS courses will be made by the admissions committee subject to space availability. No student is guaranteed readmission. Students seeking readmission reapply as described above. Readmitted students may be required to repeat one or more CLS courses or undertake directed independent study.

Once a student is admitted to the MLT program, in addition to the previous stated policies, the following apply:

1. All required coursework the Associate in MLT must be completed with a minimum grade of C or higher. Students who earn a grade of less than a C in required coursework must repeat the course and earn a C or greater.
2. Students must earn a minimum of C in all CLS courses in order to progress to the following semester's CLS courses.

3. Students must have completed all required coursework in the A.A.S. MLT curriculum with a minimum of C in order to be eligible for MLT clinical rotations

Code	Title	Credit Hours
CLS 270	Clin Practicum Hematology	3
CLS 271	Clin Practicum Chemistry	3
CLS 272	Clin Pract Immunohematol	3
CLS 273	Clin Pract Microbiology	3

Therefore, students who do not make a C in **all** required coursework in the MLT curriculum will not be permitted to attend clinical rotations; this means that if a student makes below a C during the spring term in any required course and has already begun summer clinical rotations before this grade is known, the student will be removed from rotation courses, and will be expected to retake those course and obtain a C or greater before being permitted to re-enroll in clinical rotations. Clinical rotations are offered in the summer and fall terms only; therefore, if a student fails to complete all required coursework in the summer with a C or greater prior to the fall rotation, then that student must participate in directed independent study for all CLS courses, as well as completed required coursework with a C or greater, and wait until the following summer to attend clinical rotations.

BSC 227L	Human Anatomy Lab	1
BSC 228 	Human Physiology	4
BSC 228L 	Human Physiology Lab	1
CLS 200	Clinical Biochemistry	4
CLS 230	Clinical Hematology	4
CLS 210	Clinical Immunohematology	4
CLS 220	Clinical Microbiology	4
CLS 255	Clinical Lab Problems	3
CLS 270	Clin Practicum Hematology	3
CLS 271	Clin Practicum Chemistry	3
CLS 272	Clin Pract Immunohematol	3
CLS 273	Clin Pract Microbiology	3

**Total Credit Hours** **50**

## MLT Clinical Practicum

The final semester of the program involves a 15-week clinical practicum rotation at one or more clinical affiliates. Two 15-week MLT hospital rotation periods are usually available: one in summer and another in fall. The affiliated laboratories include St. Mary's Medical Center (Huntington, WV), Cabell Huntington Hospital (Huntington, WV), VA Medical Center (Huntington, WV), Thomas Memorial Hospital (South Charleston, WV), King's Daughters Medical Center (Ashland, KY), Holzer Medical Center (Gallipolis, OH), Charleston Area Medical Center (Charleston, WV), and Pleasant Valley Hospital (Point Pleasant, WV). Available hospital clinical rotations will be assigned during the course CLS 255 Clinical Lab Problems at the discretion of MLT program faculty primarily based on student overall GPA. Student preference and academic achievement will be considered. Housing and transportation are the responsibility of the student.

If there are more qualified students than available clinical spaces, students will be placed in available spaces based on GPA, achievement, and progress in the MLT/MLS curriculum. Those not assigned to clinical rotations will receive first priority in the next available rotation schedule.

## Medical Laboratory Technology Course Requirements

The Associate of Applied Science – Medical Laboratory Technology requires the following courses in addition to those listed under Core I, Core II and University requirements:

Code	Title	Credit Hours
CHM 211 	Principles of Chemistry I	3
CHM 217 	Principles of Chem Lab I	2
CHM 212 	Principles Chemistry II	3
CHM 218 	Principles of Chem Lab II	2
BSC 227	Human Anatomy	3