

Medical Laboratory Technology (MLT) Program Guide

A Standard to Admission, Clinical Readiness, and Professional Excellence

Introduction

Welcome to Medical Laboratory Technology (MLT)

The AAS in Medical Laboratory Technology program at Cuyahoga Community College (Tri-C) is a high-intensity program designed to educate and prepare individuals to perform a wide range of diagnostic tests. While the program is academically and physically demanding, it prepares you for a career with long-term impact on patient outcomes.

The Role of the MLT

Modern medicine relies on laboratory data for over 70% of clinical decisions. As an MLT, you are the detective of the healthcare world; your work in hematology, microbiology, blood bank, immunology, and clinical chemistry provides the vital data necessary for the diagnosis, treatment, and prevention of disease.

In this profession, precision and attention to detail are the primary safeguards for patient health. You must be able to recognize the subtle factors that affect procedures and take immediate, appropriate action when corrections are indicated. Because a single labeling mistake or transcription error can have critical consequences, the ability to produce efficient, detail-oriented work ensures that the right results reach the right patient every time.

Program Mission & Professional Profile

Our Mission and Philosophy

The mission of the Tri-C MLT Program is to enable students to become dedicated healthcare professionals skilled in the entry-level competencies required of Medical Laboratory Science professionals. We believe in building trust, respect, and academic excellence. Our graduates do not just "run tests"; they understand the clinical significance of laboratory results and correlate them with disease states.

Professional Certification and Career Path

Upon successful completion of this two-year program, you will be awarded an Associate of Applied Science (AAS) degree. You will then be eligible to sit for a national certification examination, such as the American Society for Clinical Pathology (ASCP) Board of Certification. Certification is considered a professional standard that affects employment and credibility within the Cleveland medical community.

Program Structure & Academic Sequence

The MLT program is a structured curriculum where technical courses must be taken in a specific semester sequence. Coursework builds on prior knowledge, and students who need to step out of the program can only return at the same point with the next cohort; otherwise, the program will need to be restarted. The MLT courses are offered during the day at the Metro campus; each course is offered once a year. There are no classes during the summer semester.

Program Prerequisites

You must complete **one** of the two pathways below with a grade of **"C" or higher** in each course.

Choose Your Biology Track

GENERAL BIOLOGY TRACK	ANATOMY & PHYSIOLOGY TRACK
BIO-1500: PRINCIPLES OF BIOLOGY I (4 cr)	BIO-2331: Anatomy & Physiology I (4 cr)
HTEC-1060: MEDICAL TERMINOLOGY (3 cr)	BIO-2341: Anatomy & Physiology II (4 cr)
TOTAL: 7 CREDITS	Total: 8 Credits
<i>Best for: students who may want to bridge into other biological sciences, biotechnology, biochemistry, or similar fields later.</i>	<i>Best for: students who may want to advance into other health careers later.</i>

Core Requirements (Required for ALL Students)

Regardless of which science track you choose above, you must also complete these three courses with a grade of **"C" or higher**:

- **MLT-1001:** Intro to Medical Lab Science (3 cr)
- **MATH-1410:** Prob. and Statistics I - or higher (3 cr)
- **ENG-1010:** College Composition I (3 cr)

Important Academic Notes:

- **GPA:** You must maintain a cumulative GPA of **2.50** or higher.
- **Chemistry 1020 Prep:** CHEM-1020 (required during the first semester of the program) requires either a sufficient score on the Chemistry Placement Test or completion of CHEM-1010 with a "C" or higher.
- **Transfer Students:** If you have taken courses at a previous school, please ensure they are officially transferred so they can be evaluated for equivalent completion of prerequisites.
- **Bachelor's Degree Students:** If you have a BS in Biology, Biochemistry, Biotechnology, Health Sciences, or a related field, some courses may be waived. Please contact the Interim Program Director, Jeannie Davis, to discuss your specific transcript.

MLT Program Class Sequence

First Semester (Spring)		
CHEM-1020	Introduction to Organic Chemistry and Biochemistry	4
MLT-1352	Problem Solving Techniques for the Medical Laboratory (1 st 8 weeks)	1
MLT-1491	Urinalysis and Body Fluids	3
MLT-2461	Hematology	3
MLT-2490	Immunology and Serology (2 nd 8 Weeks)	2

Credit Hours		13
Second Semester (Fall)		
MLT-2501	Clinical Chemistry	5
MLT-2472	Immunohematology	4
BIO-2500	Microbiology	4
Credit Hours		13
Third Semester (Spring)		
MLT-2482	Clinical Microbiology	5
MLT-2991	Advanced MLT Applications	3
PHIL-2050	Bioethics	3
Social & Behavioral Sciences		3
Credit Hours		14
Fourth Semester (Fall)		
MLT-2940	Medical Laboratory Field Experience	3
MLT-2980	Professional Development and Life Skills	1
Credit Hours		4
Total Credit Hours		60

Clinical Field Experience

The final semester of the program is the most intensive, consisting of a hands-on, 540-hour daytime rotation at an area hospital or clinical site. This experience is scheduled as a full-time commitment of 40 hours per week, Monday through Friday, for 14 weeks. Please note that students do not attend clinical sites when the college is officially closed. Evening and afternoon hours are not available; students must plan accordingly around this first-shift schedule.

Clinical Sites

In a hospital laboratory setting, the primary volume of specimen collection and processing occurs during "morning runs" to ensure physicians have diagnostic data available for their patient rounds. Consequently, your clinical day is scheduled during the first shift and may begin as early as 6:00 AM.

Because clinical sites are typically located within a 50-mile radius of the Metropolitan Campus, reliable transportation is required to complete the program. Please be advised that some Cleveland locations require paid parking, for which the student is responsible. The program cannot guarantee any particular clinical site, geographic location, or schedule.

Service Work Policy

It is important to understand that your time at the clinical site is for education, not employment. Per accreditation standards, students are not to be used as staff replacements. While you will be performing

activities under supervision, your presence is for your learning, and you are not provided with financial compensation for these hours.

Clinical Health Requirements

Missing health requirements is the most common reason students are denied entry into courses and clinicals. This is an important step in the program.

Please visit the [Health Career Clinical Requirements Page](#) for detailed information. This page provides a step-by-step guide to completing your clinical compliance and program-specific requirements, along with resources for finding facilities and ways to meet them affordably.

You are required to be Hepatitis B compliant 14 days before the first day of classes, otherwise you will be dropped and your spot given to the next student on the waiting list. All other health and clinical requirements must be completed 6 weeks prior to the start of the clinical field experience to be placed at a site.

Only after you receive directions from faculty should you initiate your background check (plan to start this during the 3rd semester of the program). *Doing this too early may cause it to expire before you finish the program.*

Essential Functions and Technical Standards

We are committed to helping you become a highly skilled healthcare professional. To reach that goal, students must consistently demonstrate the following 'Essential Functions.' These standards serve as a roadmap for the physical skills, mental focus, and professional conduct you will need to thrive in a clinical environment.

Physical and Sensory Proficiency

Because the Medical Laboratory Technology field is a high-precision discipline, students must possess specific physical capabilities to ensure patient safety and data accuracy. You are expected to demonstrate the fine motor skills and manual dexterity necessary to collect blood specimens via phlebotomy, manipulate needles and vacuum tubes, accurately pipette microliters, and operate complex laboratory instrumentation without close supervision. Clinical practice also requires significant physical stamina; you must be able to remain standing for eight hours or more, move freely between various hospital units, and maneuver around assigned laboratory areas and patient care settings.

From a sensory perspective, you must have sufficient visual acuity to use microscopes to analyze the structural details and staining characteristics of cells and microorganisms. Additionally, you must be able to accurately distinguish colors on procedural test strips, color charts, and stained slides, and also possess the hearing required to monitor instrument alarms and timers.

Cognitive and Behavioral Excellence

In the clinical laboratory, there is no margin for error, as a single labeling mistake or transcription error can have critical consequences for patient care. Consequently, students must demonstrate absolute integrity and accountability by self-reporting any errors to a supervisor immediately.

Success in this field requires the ability to remain poised and professional under extreme pressure, particularly in high-stress environments when working with emergency rooms or neonatal units. You must be able to learn new procedures, interpret orders accurately, and use laboratory mathematics to perform

calculations and prepare reagents. Furthermore, you are required to maintain absolute patient confidentiality in accordance with HIPAA regulations and practice complete honesty in all laboratory documentation.

Professionalism and Clinical Decorum

Beyond technical mastery, you are expected to maintain a positive, cooperative, and respectful attitude toward instructors, peers, and hospital staff. Reliability is a non-negotiable standard; punctuality for all clinical shifts and laboratory sessions is mandatory, and you must adhere to the program dress code and personal hygiene requirements at all times to ensure a safe environment.

Effective communication using clear, respectful, and professional language is essential when interacting with patients and the healthcare team. Finally, you must demonstrate coachability by accepting constructive feedback and following all site-specific rules. Failure to uphold these ethical and professional standards is grounds for immediate review and possible dismissal from the program.

Communication Standards and Email Etiquette

Clear and direct communication is a safety requirement in healthcare. We expect you to model this in your interactions with the program. We exclusively correspond via your official Tri-C email account. When you reach out to the Director or faculty, please treat every message as a professional interaction. Always include your full name and S-Number and use a descriptive subject line. This ensures your inquiries are handled in an appropriate time frame with the same precision we expect in the laboratory.

The Application and Registration Process

Applying

Students interested in Medical Laboratory Technology must notify the program through one of the following methods:

- **Major Declaration:** Formally declaring Laboratory Phlebotomy as your major.
- **Online Interest Form:** Completing the '**Get Started Here**' form on the program website.

Note for Dual-Program Students: If you are currently enrolled in another major at Cuyahoga Community College, you do not need to change your major. Submitting the '**Get Started Here**' form provides the Program Director with the information needed to monitor your requirements and deliver program updates.

Departmental approval is required for registering for the core MLT classes due to requirements beyond course completion. Once the Program Director is notified by the tracking system that the prerequisites are complete, a formal audit of your academic record and Complio account will be conducted.

*You are required to be **Hepatitis B compliant 14 days before the first day of classes**, you could be dropped and your spot given to the next student on the waiting list if this is not completed. Because this requirement could take months to complete, students are advised to begin at the start of the Fall semester to allow time to fully complete it.*

Enrollment and Waitlist

The Medical Laboratory Technology program is a limited-enrollment major. While the program typically aims to accept a cohort of 15 students, we officially cap enrollment based on the number of clinical sites available each semester.

Waitlist

Priority is established based on the date when all admission criteria are met. This includes a review of the completion timing for prerequisite courses and health requirements. If all prerequisites are transferred in, the date the major is declared is used; this includes those who transfer a BS degree. Priority is given to students who have declared MLT as their major if they are enrolled in multiple programs.

Estimated Program Investment

While tuition is the primary cost, students should prepare for additional program-specific fees required for clinical onboarding and certification.

[Current Tri-C Tuition Schedule](#)

Expenses Outside of Tuition	Estimated Cost
Books & Online Resources	\$1000
Scrubs & Shoes for Clinical Experience (Recommended)	\$250
Background Check & Health Requirements Tracking (Complio)	\$130
Completing Health Requirements (Physical, Vaccines, Titers)	Variable
AHA BLS for Health Providers (Clinical Requirement)	\$70
Health Insurance	Variable
National Certification Exam (ASCP MLT)	\$235

Student Support Resources

Administrative & Financial Support

[Tri-C Admissions & Enrollment](#)

For questions regarding course registration, adding/dropping classes, and official transcripts.

[Financial Aid Office](#)

For assistance with FAFSA, scholarships, grants, and federal work-study programs.

[Paying for College](#)

For information regarding tuition payments, payment plans, college debt forgiveness, and billing deadlines.

Academic Success Tools

[Academic Counseling](#)

To ensure you are meeting all program prerequisites and graduation requirements.

[Campus Bookstore](#)

[Tutoring Services](#)

For supplemental help with difficult coursework, particularly in science or mathematics.

Personal Wellbeing & Accessibility

[Student Accessibility Services](#)

To request accommodation for learning disabilities, sensory limitations, psychiatric conditions, physical mobility conditions, and chronic health issues.

[Counseling & Wellness Services](#)

Confidential support to provide short-term personal counseling services with issues both related and unrelated to academics.

[Career Services](#)

For help with resume building, mock interviews, and job placement post-graduation.

Program Contact

Jeannie Davis, Program Director Office: MSHC 126I | Phone: 216-987-4438 | Email: jeannie.davis@tri-c.edu

Website: [Tri-C MLT Site](#)