

MEDICAL LABORATORY TECHNOLOGY, ASSOCIATE OF APPLIED SCIENCE



The Medical Laboratory Technician (or Clinical Laboratory Technician) works in a hospital, clinic, private or research laboratory performing a variety of diagnostic tests. The course of study includes mathematics, chemistry, anatomy and physiology, medical laboratory procedures, general education courses and one academic semester of clinical field experience. Graduates may be eligible to take national certification examinations like that offered by the American Society for Clinical Pathology (ASCP).

Program contact: Learn more

Learn more about how certificate credits apply to the related degree.

Related Degrees and Certificates

- Laboratory Phlebotomy, Short-Term Certificate

Program Admission Requirements

Application may be submitted to the Health Careers Enrollment Center while meeting the following requirements:

- High School Diploma/GED
- GPA required: 2.50 admissions requirements. 2.50 overall
- Eligibility to enroll in BIO-2331 Anatomy and Physiology I by sufficient score on Biology placement test or CHEM-1010 Introduction to Inorganic Chemistry and CHEM-1020 Introduction to Organic Chemistry and Biochemistry with a grade of "C" or higher.
- Non-native English speaking applicants: Admission into Cuyahoga Community College is premised on a complete and accurate initial application to the College, including, if applicable, proof of English Language Proficiency Requirements for admission as indicated on the English Language Proficiency Requirements for Admissions to the College, and available on the web at: <http://www.tri-c.edu/get-started/international-students/english-language-proficiency-requirements-for-admission.html>

To be accepted into any selective admission programs, students must successfully complete English as a Second Language (ESL) course/s, as referenced above, if deemed necessary by the College at the time of enrollment. Admission is conditioned upon achieving the necessary grade point average (GPA), English language proficiency requirements and any specific pre-requisite courses, and by meeting

program accreditation or licensing requirements as evidenced in the Program Handbook for the specific program.

- Complete the following courses with a grade of "C" or higher.

Code	Title	Credit Hours
CHEM-1020	Introduction to Organic Chemistry and Biochemistry	4
MATH-1410	Elementary Probability and Statistics I (or higher)	3
MA-1020	Medical Terminology I	3
MLT-1000	Introduction to Medical Laboratory Technology	3
Select one of the following:		
ENG-1010	College Composition I	
ENG-101H	Honors College Composition I	

Other Information

- 15 students accepted per year
- For students with minimal computer experience, highly recommend also taking IT-1090 Computer Applications.
- All science and math courses must have been completed within seven years of application submission, and may only be repeated once to improve a grade. Applicants with bachelor's or higher degree in sciences may have seven year limit on science and math courses waived (contact program manager).
- The program begins Spring semester yearly, but is subject to change. Review the program website for comprehensive admissions information and application: <http://www.tri-c.edu/programs/healthcareers/medicallab/Pages/Default.aspx>.
- Criminal background check required.

Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

- Organize workflow using technology to produce efficient, detail oriented work and identify emergencies and use problem solving skills to resolve these issues.
- Follow governmental, accreditation, and institutional guidelines in relationship to safety, infection control, confidentiality, and proficiency testing.
- Practice consistent quality assurance through precise performance, monitoring, analyzing, and documenting of all quality testing.
- Collect samples; perform testing procedures according to SOP; operate, maintain, and trouble shoot instrumentation; and keep accurate records.
- Interact with patients, staff and colleagues, using tact, courtesy, and respect.
- Develop professionalism by adhering to institutional policies and practicing ethical standards as defined by accrediting boards.

Suggested Semester Sequence

Program Admissions Requirements Semester	Credit Hours
CHEM-1020 Introduction to Organic Chemistry and Biochemistry ¹	4

MA-1020	Medical Terminology I	3
MATH-1410	Elementary Probability and Statistics I (or higher) ²	3
MLT-1000	Introduction to Medical Laboratory Technology	3
Select one of the following:		3
ENG-1010	College Composition I	
ENG-101H	Honors College Composition I	
Credit Hours		16
First Semester		
BIO-2331	Anatomy and Physiology I ³	4
MLT-1351	Problem Solving Techniques for the Medical Laboratory	2
MLT-1491	Urinalysis and Body Fluids	3
MLT-2461	Hematology	3
PHIL-1000	Critical Thinking	3
Credit Hours		15
Second Semester		
BIO-2500	Microbiology	4
MLT-2471	Immunohematology & Serology	5
MLT-2501	Clinical Chemistry	5
Credit Hours		14
Third Semester		
BIO-2341	Anatomy and Physiology II	4
MLT-2482	Clinical Microbiology	5
MLT-2990	Advanced MLT Applications	6
Credit Hours		15
Fourth Semester		
MLT-2940	Medical Laboratory Field Experience	3
MLT-2980	Professional Development and Life Skills	1
Credit Hours		4
Total Credit Hours		64

¹ Enrollment in CHEM-1020 Introduction to Organic Chemistry and Biochemistry requires students to have either achieved a sufficient score on Chemistry Placement Test or completed CHEM-1010 Introduction to Inorganic Chemistry with "C" or higher.

² Students who do not place into MATH-1410 Elementary Probability and Statistics I on assessment test must take MATH-0965 Intermediate Algebra as a prerequisite for this program. MATH-1800 Special Topics in Mathematics-MATH-1820 Independent Study/Research in Mathematics may not be used to meet this requirement.

³ Enrollment in BIO-2331 Anatomy and Physiology I requires either appropriate placement score on biology Placement test or a grade of "C" or higher in BIO-1100 Introduction to Biological Chemistry.

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.