

MEDICAL LABORATORY TECHNOLOGY - ASSOCIATE IN APPLIED SCIENCE



CLAB

Occupational Title: Medical Laboratory Technician
Flanagan Campus, Lincoln only

The Medical Laboratory Technician Program offered by the college is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

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Tremendous advances in medicine have resulted in an ever-increasing demand for diagnostic laboratory tests. The complexity of laboratory sciences today requires a highly trained technician to carry out these intricate analyses. The Medical Laboratory Technology program prepares students to enter this interesting and rewarding field.

This program provides the classroom and laboratory preparation required for students to work under supervision in a hospital or a public or private health laboratory, performing a wide variety of blood, chemical, microbiological, immunological and other clinical laboratory tests. Students undertake three semesters of preparation at CCRI and two semesters at an affiliated site where clinical practices are performed under the supervision of qualified, registered, professional personnel. Techniques of the operation, care, and maintenance of the latest equipment are emphasized throughout the clinical and academic experiences.

The Medical Laboratory Technology program prepares students as medical laboratory technicians with entry-level knowledge, application, and problem-solving skills to competently and safely perform a variety of laboratory procedures and function as an active member of the healthcare team.

Graduates of this program are eligible for employment in a hospital, public or private health laboratory, health care clinic, veterinary office, research lab, crime lab or pharmaceutical lab, performing a wide variety of blood, chemical, microbiological, immunological and other clinical laboratory tests. They also may choose to transfer to a bachelor's degree program at a four-year college or university.

Graduates are eligible to sit for the national certification examination for MLT given by the ASCP Board of Certification (BOC).

Technical standards: The physical activity (strength) level for medical laboratory technician (078.381-014) is classified as "light" by the Department of Labor.

Note: Many courses require prerequisites, corequisites and/or testing. See course descriptions for details (<https://catalog.ccri.edu/course-descriptions/>).

General Policies

See important general policies in the beginning of this section on the performance-based Health Sciences application process, academic progress, advanced placement, background check, CPR certification, health insurance, health records, reinstatement, transportation, uniforms, and equipment.

Minimum Requirements to Apply to the Medical Laboratory Technology Program

- CCRI application** – Complete and submit a CCRI Application for Enrollment. General Studies should be the first choice; pre-Medical Laboratory Technology (CLAB) should be the second choice.
- High school transcript** – An official copy of a high school or GED® transcript, including date of graduation, must be provided. If the applicant holds a baccalaureate degree from an accredited college or university, the high school transcript may be waived; a college transcript must indicate completion and degree awarded.
- CCRI uses a multiple measures** approach to determine admission into Health Science programs (For example: High School and GED® transcripts, SAT, ACT, HESI A2 or ACCUPLACER scores). Placement can also be determined by taking college level English and Math courses. Anyone with a degree from a regionally accredited higher education institution may have this requirement waived following submission of the official college transcript. If using ACCUPLACER, the following guidelines are used:
 - Placement testing** – Complete a standardized test (ACCUPLACER) issued by CCRI's Advising Center. Students may NOT retake the ACCUPLACER test before completing the remedial course/courses. Note: For application purposes, ACCUPLACER testing can be waived for students who provide documentation of a bachelor's degree or higher. Students are advised that individual departments may still require ACCUPLACER testing as a prerequisite for their courses.
 - Reading comprehension test** must show competency of 90 or above in the Classic ACCUPLACER or a score of 259 or above in the Next Generation ACCUPLACER or students must complete Reading and Study Skills Program (ENGL 1002) with a grade of B- or better. Composition I for Speakers of English as a Second Language (ESL) (ENGL 1300) will not substitute for Composition I (ENGL 1010).
- Complete courses required** for admission with a grade of C or better.
 - Introductory Biology: Cellular (BIOL 1002)
- GPA** – A cumulative grade point average of 2.5 or better for all college courses
- Health Sciences application** – Complete and submit a performance-based Health Sciences application including a preadmission degree evaluation during the open enrollment period.
 - Important:** Submission of a performance-based Health Sciences application does not guarantee acceptance to the program. Acceptance is based on points earned as listed in the program acceptance criteria point system. (See Dean of Health and Rehabilitative Sciences webpage (<https://www.ccri.edu/dean-hrs/>)). At the time of admission, students must meet the current admission requirements. Students declining acceptance into the program for the semester offered must resubmit a performance-based Health Sciences application and meet the current admission requirements. Once accepted, students must attend an orientation conducted by the Allied and Rehabilitative Health Department.

7. **Background check** – Students are required to submit a background check when directed by notification from One Stop Student Services.

Program Requirements

- Students are responsible for the purchase of books, uniforms, and transportation to clinical assignments.
- Program faculty reserve the right to require withdrawal of any student from the program or to refuse reinstatement based on the student's academic, clinical or behavioral performance.
- Students must complete all courses in this program with a cumulative index of 2.5 to qualify for the Associate in Applied Science degree.
- **No grade of less than C+** is acceptable in any technical course (MLTC). Students receiving less than C+ will be dismissed from the program.

Program Learning Outcomes

Upon completion of this program, a student will be able to:

1. Be skilled in current laboratory practices as entry-level practitioners.
2. Demonstrate the ability to think critically and solve problems in a laboratory setting.
3. Demonstrate the ability to communicate verbally and in writing.
4. Act as ethical and responsible members of the health care team.

MLTC 1130	Phlebotomy for Medical Laboratory Technicians I	1
MLTC 1150	Urinalysis	3
MLTC 1160	Immunohematology	3
MLTC 1161	Topics in Immunohematology	1
MLTC 1190	Fundamentals of Clinical Chemistry	3
MLTC 1210	Introduction to Clinical Laboratory Science ¹	3
MLTC 1930	Phlebotomy for Medical Laboratory Technicians II ^A	1
MLTC 1940	Clinical Immunohematology ^A	3
MLTC 1950	Clinical Urinalysis ^A	1
MLTC 2110	Clinical Microbiology I	4
MLTC 2120	Hematology	4
MLTC 2190	Clinical Chemistry I	5
MLTC 2910	Clinical Microbiology II	4
MLTC 2920	Clinical Hematology II	4
MLTC 2930	Clinical Laboratory Science Seminar	2
MLTC 2990	Clinical Chemistry II	4
Subtotal		53
Total Hours		75

¹ This course is open to any student interested in the field of medical laboratory technology.

^A Work-based learning course

Requirements

Code	Title	Hours
Preadmission General Education Requirement		
This course must be taken prior to program admission:		
BIOL 1002	Introductory Biology: Cellular Communication; Scientific Reasoning ^{MSCI; Non-Written}	4
Subtotal		4
General Education Requirements		
ENGL 1010	Composition I (or ENGL 1010A) ^{HUMN; Written} Communication; Information Literacy	3
MATH 1175	Statistics for the Health and Social Sciences (or MATH 1175C) ^{MSCI; Scientific Reasoning; Quantitative Literacy}	3
PSYC 2010	General Psychology ^{SSCI; Critical Thinking; Scientific Reasoning}	4
Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#sscigened/) ^{SSCI}		3
Choose ONE of the following:		5
CHEM 1010	Survey of Biomedical Chemistry ^{MSCI; Critical Thinking; Scientific Reasoning}	
CHEM 1030	General Chemistry I ^{MSCI; Scientific Reasoning; Quantitative Literacy}	
Subtotal		18
Major Requirements		
Unless otherwise noted in course descriptions, major requirements are open only to students who are formally accepted into the program.		
MLTC 1110	Bacteriology	4
MLTC 1120	Clinical Immunology	3

Recommended Course Sequence

Course	Title	Hours
Prerequisites		
BIOL 1002	Introductory Biology: Cellular	4
Hours		4
Summer Session		
ENGL 1010	Composition I (or ENGL 1010A)	3
MATH 1175	Statistics for the Health and Social Sciences (or MATH 1175C)	3
PSYC 2010	General Psychology	4
Hours		10
Year 1		
Semester 1		
Choose ONE of the following:		5
CHEM 1010	Survey of Biomedical Chemistry	
CHEM 1030	General Chemistry I	
MLTC 1120	Clinical Immunology	3
MLTC 1210	Introduction to Clinical Laboratory Science	3
Hours		11
Semester 2		
MLTC 1110	Bacteriology	4
MLTC 1130	Phlebotomy for Medical Laboratory Technicians I	1
MLTC 1150	Urinalysis	3
MLTC 1160	Immunohematology	3
MLTC 1161	Topics in Immunohematology	1
MLTC 1190	Fundamentals of Clinical Chemistry	3
Hours		15

Summer Session

MLTC 1930	Phlebotomy for Medical Laboratory Technicians II [^] (1 week/40 hrs)	1
MLTC 1940	Clinical Immunohematology [^]	3
MLTC 1950	Clinical Urinalysis [^]	1
Hours		5

Year 2

Semester 1

MLTC 2110	Clinical Microbiology I	4
MLTC 2120	Hematology	4
MLTC 2190	Clinical Chemistry I	5
Social Science Elective (https://catalog.ccri.edu/academic-information/general-education/course-attributes/#sscigened/)		3
Hours		16

Semester 2

MLTC 2910	Clinical Microbiology II [^]	4
MLTC 2920	Clinical Hematology II [^]	4
MLTC 2930	Clinical Laboratory Science Seminar	2
MLTC 2990	Clinical Chemistry II [^]	4
Hours		14
Total Hours		75

[^] Work-based learning course

Transfer

Please meet with an Academic Advisor/Student Success Coach (<https://ccri.edu/advising/>) if you are interested in earning a bachelor's degree. Your Academic Advisor will help you select the courses that best prepare you for transfer to a four-year college or university.

Check out the Joint Admissions Agreement (<https://ccri.edu/jaa/>) if you are interested in transferring to Rhode Island College or the University of Rhode Island. The JAA program offers seamless transfer to RIC or URI with additional benefits. Transfer information, events, and articulations are available on the Transfer Center website (https://ccri.edu/oes/transfer_center/).