

CLINICAL LABORATORY SCIENCE TECHNOLOGY, ASSOCIATE OF APPLIED SCIENCE

Curriculum Code #2406

Effective May 2024

Division of Health and Wellness Sciences (<http://catalog.lorainccc.edu/academic-programs/allied-health-nursing-health-physical-education-recreation/>)

The clinical laboratory science technology program at LCCC prepares its graduates for employment in hospital, urgent care, physicians' office, research and industry laboratory settings. Examination and analysis of body fluids, tissues and cells play a crucial role in a physician's ability to diagnose and treat disease. The clinical laboratory science technology program trains students to work in various areas of a clinical laboratory, including hematology, urinalysis, immunohematology (blood bank), microbiology and chemistry. Students collect blood samples, work with state-of-the-art clinical laboratory instrumentation, perform chemical and microscope analysis of urine, cross-match blood for transfusion, identify abnormal blood cells under the microscope and identify infectious bacteria-causing infection in various body locations. Upon completion of the accredited program, graduates will possess an associate of applied science degree and are eligible to take the American Society of Clinical Pathologists (ASCP) Board of Certification national certifying examination. Those passing the examination are certified as medical laboratory technicians (MLT-ASCP). Lorain County Community College has articulation agreements with colleges and universities including programs offered by Lorain County Community College's University Partnership.

First Year

Fall Semester		Hours
BIOG 161	PRINCIPLES OF BIOLOGY I	4
CLSC 111	INTRODUCTION TO CLINICAL LABORATORY SCIENCE TECHNOLOGY ^{1,2}	2
CLSC 131	INTRODUCTION TO HEMATOLOGY ^{1,2}	2
CLSC 132	BODY FLUIDS AND URINALYSIS ^{1,2}	2
CLSC 133	HEMATOLOGY I/URINALYSIS CLINICAL PRACTICUM ^{1,2}	3
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY ³	1
Hours		14

Spring Semester

BIOG 162 or BIOG 251	PRINCIPLES OF BIOLOGY II ¹ or GENERAL MICROBIOLOGY	4
CLSC 134	ADVANCED HEMATOLOGY AND HEMOSTASIS ^{1,2}	2
CLSC 135	IMMUNOHEMATOLOGY CONCEPTS & PROCEDURES ^{1,2}	2
CLSC 136	HEMATOLOGY II/IMMUNOHEMATOLOGY CLINIC PRACTICUM ^{1,2}	3

ENGL 161	COLLEGE COMPOSITION I	3
Hours		14
Summer Semester		
MTHM 168	STATISTICS ¹	3
Hours		3
Second Year		
Fall Semester		
CHMY 161	GENERAL, ORGANIC AND BIOCHEMISTRY I ¹	4
CLSC 213	CLINICAL MICROBIOLOGY, IMMUNOLOGY AND SEROLOGY ^{1,2}	9
PHLY 165	BIOETHICS	3
Hours		16
Spring Semester		
CHMY 162	GENERAL, ORGANIC AND BIOCHEMISTRY II ¹	4
CLSC 221	CLINICAL CHEMISTRY ^{1,2}	10
SOCY 151G	INTRODUCTION TO SOCIOLOGY	3
Hours		17
Total Hours		64

1

Indicates that this course has a prerequisite.

2

Indicates that a grade of C (2.0) or better must be earned in order to continue in the sequence.

3

A student must register for the orientation course when enrolling for more than six credit hours per semester or any course that would result in an accumulation of 13 more credit hours.

American Heart Association Healthcare Provider certification is required upon entrance into the program.

Students who expect to continue on for a Baccalaureate degree should consider taking MTHM 171, CHMY 171, CHMY 172, and ENGL 162 and consult with a college advisor.

Program Contact(s):

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For information about admissions, enrollment, transfer, graduation and other general questions, please contact your advising team (<https://www.lorainccc.edu/admissions-and-enrollment/advising-and-counseling/>).

More program information can be found on our website. (<https://www.lorainccc.edu/health/clinical-lab-science/>)

Admission Requirements for Clinical Laboratory Science Technology

1. Official high school or GED and college/program transcripts (if applicable) on file in the LCCC Records office.
2. Program application form on file.
3. High school algebra or equivalent.

4. Minimum GPA of 2.0 on all college-level course work (includes transfer/transient work).

Learn more about Allied Health program requirements (<http://catalog.lorainccc.edu/academic-information/allied-health-nursing-admissions/>)

Credit for Prior Learning (PLA) options may be available for your program. For more information, please visit our website: www.lorainccc.edu/PLA (<http://www.lorainccc.edu/PLA/>)

Program Learning Outcomes

1. Patient and quality control test results, recognizing normal, abnormal, and critical values, and take appropriate follow up action when necessary
2. Sufficient technical skill in the use of laboratory information systems to meet the needs of the laboratory
3. Collect and process biological specimens appropriately in the clinical laboratory
4. Perform routine clinical laboratory testing in the Hematology, Immunohematology, Chemistry, Microbiology, Immunology / Serology, and Coagulation areas of the clinical laboratory
5. Operate and maintain laboratory instrumentation in the Hematology, Immunohematology, Chemistry, Microbiology, Immunology / Serology, and Coagulation areas of the clinical laboratory
6. Recognize the clinical significance of laboratory results in the diagnosis and treatment of disease
7. Participate in the appropriate aspects of a laboratory quality assurance program
8. Demonstrate sufficient use of oral and written communication to meet the needs of the laboratory, and patient care
9. Demonstrate a professional attitude in appearance, work ethic, and laboratory safety
10. Demonstrate the performance of routine procedures to students or new employees as assigned by their supervisor
11. Successfully pass a National Certification Exam (ASCP) in Clinical Laboratory Science Technology