

CLINICAL LABORATORY TECHNOLOGY (MEDICAL LABORATORY TECHNICIAN): AAS

Associate in Applied Science | 71 credit hours minimum

Area of Interest: Health Professions

Program Website (<https://stlcc.edu/programs-academics/pathways/health-professions/clinical-laboratory-technology/>)

Academic Advising (<https://stlcc.edu/admissions/advising/>)

Program Description:

The Associate in Applied Science in Clinical Laboratory Technology degree program prepares students for entry-level positions as clinical laboratory technicians. Through classroom and practical experience in hospital and clinical laboratories, students learn to perform qualitative, quantitative, and analytic testing in diagnostic areas such as microbiology, hematology, immunohematology, clinical chemistry, serology, immunology, and urinalysis.

Individuals interested in the Clinical Laboratory Technology program should have an interest in biology, chemistry, and the health sciences and be able to follow precise and detailed instructions.

A student must receive a satisfactory (minimum of a "C") rating in Clinical Laboratory Technology didactic, laboratory, and clinical courses. If a student gets less than a "C" grade in any clinical laboratory technology course, the student will be placed on probation in the program, and the student will not be able to advance through the program until that course has been completed with a "C" or better. Students must also attain a "C" grade or better in all science, math, and English general education courses, as well as all courses in the area of concentration, to graduate from the program.

Graduates are eligible to take the American Society for Clinical Pathology (ASCP) Board of Certification Examination or other examinations offered by accredited certifying agencies. Furthermore, job opportunities for graduates of this program are available in hospitals, clinics, doctors' offices, independent laboratories, research and industrial laboratories, and public health institutions.

Pre-Entry Requirements

The following must be completed prior to applying to the Clinical Laboratory Technology program:

- MTH 140 or MTH 140S with a minimum grade of "C" or higher
- ENG 101 with a minimum grade of "C"
- CHM 101 or CHM 105 with a minimum grade of "C" within five years of applying to the program
- BIO 111 with a minimum grade of "C" within five years of applying to the program
- Minimum Cumulative GPA: 2.5 or higher

Note: While not a pre-entry requirement to the program, BIO 207 must be completed with a "C" or higher within 5 years from application to the program.

Location. This program is offered in its entirety at Forest Park.

Licensure. This program meets the educational requirements for state licensure in Illinois. Students interested in pursuing licensure in a different state should contact the program coordinator for more information.

Cost of Attendance. For more information on cost of attendance visit MoSCORES (<https://scorecard.mo.gov/Search/>).

Program Career and Salary Information. Pursuant to Missouri HB 1606 (2018), information regarding the number of credit hours, program length, employment rate, wage data, and graduates employed in careers related to their program of study at St. Louis Community College can be found at the following URL: [https://scorecard.mo.gov/scorecard/](https://scorecard.mo.gov/scorecard/&sa=D&ust=155536894857000&usg=AFQjCNG1xf3E_i2lO96zEytILO-s5xaJCQ) (https://www.google.com/url?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=155536894857000&usg=AFQjCNG1xf3E_i2lO96zEytILO-s5xaJCQ). Search using School / Program "St. Louis Community College" and choose the degree or credential type of interest.

The following limitations to the data apply: Information provided is based on the most recent cohorts available. Typically, most recent cohorts for wage and completion data are six years prior to the current academic year. Time to complete a program of study varies depending on the number of credit hours students earn per semester.

Interested in this program? Start the enrollment process by visiting the **Apply to STLCC** (<https://www.stlcc.edu/admissions/apply-to-stlcc/>) page.

At the completion of the program, students are expected to:

1. perform routine laboratory tests across key clinical laboratory departments, such as, urinalysis, transfusion services, hematology, chemistry, immunology, and microbiology.
2. demonstrate the technical and procedural aspects of laboratory testing, safety, and ethical standards of practice.
3. adhere to procedural guidelines to perform laboratory tests, including preanalytical, analytical, and post-analytical processes.
4. communicate laboratory information to patients, physicians, and other authorized sources in a professional manner.
5. utilize a variety of reporting platforms, which may include laboratory information systems, computer technologies, telecommunications, and direct patient conversation while maintaining patient confidentiality.
6. maintain data security for sensitive information.
7. evaluate laboratory data to correlate laboratory tests and results with the symptoms of prevalent diseases using quantitative analytical skills.
8. resolve unexpected laboratory results and instrument faults.
9. demonstrate the ability to integrate the clinical aspects of microbiology, bacteriology, parasitology, and mycobacteriology and how these aspects are analyzed in the lab.
10. explain disease conditions that affect the urinary tract and body fluids.
11. analyze components of blood and its associated diseases.
12. perform biochemical analysis on blood and body fluids and compare their relation to pathology.
13. determine how the immune system responds to infection, blood banking, and physically cross-matching samples.

Missouri Civics Examination. Students entering college for the very first time in fall 2019 and who intend to complete an associate's degree must successfully complete a civics examination. **Information on who is eligible for a waiver can be found on the STLCC website** (<https://stlcc.edu/programs-academics/missouri-civics-exam.aspx>).

Program of Study

Code	Title	Credit Hours
Pre-Entry Requirements		
ENG 101	College Composition I (MOTR ENGL 100)	3
MTH 140	Intermediate Algebra (or MTH 140S or higher)	3
CHM 101 or CHM 105	Fundamentals of Chemistry I (MOTR CHEM 100L) General Chemistry I (MOTR CHEM 150L)	5
BIO 111	Introductory Biology I (MOTR BIOL 100L)	4
General Education		
BIO 207	Anatomy and Physiology I (MOTR LIFS 150LAP)	4
BIO 208	Anatomy and Physiology II	4
XXX xxx	Social & Behavioral Sciences: Civics Requirement	3
Program Requirements		
CLT 100	Orientation to the Medical Laboratory	1
CLT 101	Medical Microbiology	4
CLT 202	Clinical Practice I	4
CLT 207	Clinical Practice II	4
CLT 110	Urinalysis and Body Fluids	3
CLT 111	Hematology and Coagulation	4
CLT 113	Pathogenic Bacteriology	3
CLT 211	Parasites, Fungi, and Intracellular Pathogens	2
CLT 213	Introduction to Clinical Chemistry	3
CLT 217	Clinical Chemistry	5
CLT 215	Immunohematology	4

CLT 219	Professional Skills Seminar	1
CLT 115	Immunology and Serology	3
CLT 120	Clinical Laboratory Skill Development	4
Total Credit Hours		71

Full-Time Academic Plan

Missouri Civics Examination. Students entering college for the very first time in fall 2019 and who intend to complete an associate's degree must successfully complete a civics examination. **Information on who is eligible for a waiver can be found on the STLCC website (<https://stlcc.edu/programs-academics/missouri-civics-exam.aspx>).**

PLEASE NOTE: If you originally enrolled at STLCC prior to Fall 2025, you may need to view an **archived catalog (<http://catalog.stlcc.edu/archived-catalogs/>)** for your correct program requirements. Please speak with an advisor or the program coordinator for more information.

Pre-Entry Requirements

Code	Title	Credit Hours
BIO 111	Introductory Biology I (MOTR BIOL 100L) ¹	4
CHM 101 or CHM 105	Fundamentals of Chemistry I (MOTR CHEM 100L) ¹ General Chemistry I (MOTR CHEM 150L)	5
ENG 101	College Composition I (MOTR ENGL 100) ²	3
MTH 140	Intermediate Algebra ²	3
Total Credit Hours		15

Code	Title	Hours	Prerequisites	Milestones/Notes
First Year				
Fall				
BIO 207	Anatomy and Physiology I (MOTR LIFS 150LAP)	4	BIO 111 or BIO 140 or CHM 101 with a minimum grade of "C", or college-level course equivalent, and Reading Proficiency	While not a prerequisite to the program, this course must be completed with a "C" or higher within 5 years from application to the program.
CLT 100	Orientation to the Medical Laboratory	1	Admission to the Clinical Laboratory Technology program and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
CLT 101	Medical Microbiology	4	Admission to the Clinical Laboratory Technology program, permission of the program director, and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
CLT 110	Urinalysis and Body Fluids	3	Admission to the Clinical Laboratory Technology program, permission of the program director, and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
XXX xxx	Social & Behavioral Sciences: Civics Requirement (http://catalog.stlcc.edu/general-education/)	3		
Credit Hours		15		

Spring				
CLT 111	Hematology and Coagulation	4	CLT 100 with a minimum grade of "C" or permission of the program director and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
CLT 113	Pathogenic Bacteriology	3	CLT 101 with a minimum grade of "C" or permission of the program director and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
CLT 115	Immunology and Serology	3	CLT 101 with a minimum grade of "C" and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
BIO 208	Anatomy and Physiology II	4	BIO 207 with a minimum grade of "C" and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
	Credit Hours	14		
Summer				
CLT 120	Clinical Laboratory Skill Development	4	CLT 110, CLT 111, CLT 113, and CLT 115 all with minimum grades of "C" and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
	Credit Hours	4		
Second Year				
Fall				
CLT 211	Parasites, Fungi, and Intracellular Pathogens	2	CLT 101 with a minimum grade of "C" or the permission of the program director and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
CLT 202	Clinical Practice I	4	CLT 120 with a minimum grade of "C" and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
CLT 213	Introduction to Clinical Chemistry	3	CLT 100 with a minimum grade of "C" and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
CLT 215	Immunohematology	4	CLT 115 with minimum grade of "C" and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
	Credit Hours	13		
Spring				
CLT 219	Professional Skills Seminar	1	CLT 202 with a grade of "S" or permission of the program director and Reading Proficiency	Course must be completed with a minimum grade of 'C'. Apply for graduation.
CLT 217	Clinical Chemistry	5	CLT 213 with a minimum grade of "C" or permission of program director and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
CLT 207	Clinical Practice II	4	CLT 202 with a grade of "S" and Reading Proficiency	Course must be completed with a minimum grade of 'C'.
	Credit Hours	10		
	Total Credit Hours	56		

² Must be completed with a minimum grade of 'C'.

¹ Must be completed with a minimum grade of 'C' within the past 5 years.

*Click on the hyperlinked course number to view additional information about the course.

**Students completing a course that has been assigned a MOTR number may transfer that course to any public institution in Missouri. Those who complete CORE 42 requirements will have that verification on their transcript.

*** It is your responsibility to verify that the courses listed above will transfer to the four-year institution of your choice. Maximize your transfer credits/classes by meeting with an academic advisor.

The Clinical Laboratory Technology, Associate in Applied Science program's pre-entry requirements will change for students enrolling in the program for fall 2025.

Application to the program is selective. Prior to applying for admission to the Clinical Laboratory Technology program for fall 2025, the student must complete:

- MTH 140 or MTH 140S with a minimum grade of "C"
- ENG 101 with a minimum grade of "C"
- CHM 101 or CHM 105 with a minimum grade of "C" within five years of applying to the program
- BIO 111 with a minimum grade of "C" within five years of applying to the program

Note: While not a pre-entry requirement to the program, BIO 207 must be completed with a "C" or higher within 5 years from application to the program.