

# CLINICAL LABORATORY TECHNOLOGY (MEDICAL LABORATORY TECHNICIAN): AAS

Associate in Applied Science | 70 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: Forest Park

This 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 microbiology, hematology, immunohematology, clinical chemistry, serology, immunology and urinalysis.

Persons interested in this program should have an interest in biology, chemistry and the health sciences and be able to follow precise and detailed instructions.

To graduate, a student must obtain a "C" or better on all science, math courses and all courses in the area of concentration.

Graduates are eligible to take the American Society for Clinical Pathology (ASCP) Board of Certification Examination. Positions are available in hospitals, clinics, doctors' offices, independent laboratories, and public health, research and industrial laboratories.

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

**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://www.google.com/url?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=1555536894857000&usg=AFQjCNG1xf3E\\_i2lO96zEytILO-s5xaJCQ](https://www.google.com/url?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=1555536894857000&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. execute routine laboratory tests that span all the key disciplines of the clinical laboratory, including 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. demonstrate procedural guidelines to perform laboratory tests, including preanalytical, analytical, and post-analytical processes.
4. communicate laboratory information to patients, physicians, and other authorized sources utilizing a variety of formats, which may include laboratory information systems, computer technologies, telecommunications, and direct patient conversation.
5. use quantitative analytical skills to evaluate and process laboratory data to correlate laboratory tests and results with the symptoms of prevalent diseases.
6. recognize unexpected laboratory results and instrument malfunctions and take appropriate action for resolution.
7. identify continuing education opportunities for professional development.
8. demonstrate the ability to integrate the clinical aspects of microbiology, bacteriology, parasitology, and mycobacteriology and how they are analyzed in the lab.
9. determine disease conditions that affect the urinary tract and body fluids.
10. analyze components of blood and its associated diseases.
11. perform biochemical analysis on blood and body fluids and compare their relation to pathology.
12. 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
<b>General Education</b>		
ENG 101	College Composition I (MOTR ENGL 100)	3
ENG 102	College Composition II (MOTR ENGL 200)	3
or ENG 103	Report Writing (MOTR ENGL 110)	
XXX xxx	Social & Behavioral Sciences: Civics Requirement	3
SOC 101	Introduction to Sociology (MOTR SOCI 101)	3
or PSY 200	General Psychology (MOTR PSYC 100)	
CHM 101	Fundamentals of Chemistry I (MOTR CHEM 100L)	5
BIO 207	Anatomy and Physiology I (MOTR LIFS 150LAP)	4
BIO 208	Anatomy and Physiology II	4
MTH 140	Intermediate Algebra (or MTH 140S or higher)	3
<b>Health and Wellness Elective</b>		
Select 2 credit hours		2
<b>Program Requirements</b>		
CLT 100	Orientation to the Medical Laboratory	1
CLT 101	Medical Microbiology	3
CLT 202	Clinical Practice I	4

CLT 207	Clinical Practice II	4
CLT 110	Urinalysis and Body Fluids	2
CLT 111	Hematology and Coagulation	4
CLT 113	Pathogenic Bacteriology	2
CLT 211	Parasites, Fungi and Intracellular Pathogens	2
CLT 213	Introduction to Clinical Chemistry	2
CLT 217	Clinical Chemistry	5
CLT 215	Immunohematology	4
CLT 219	Professional Skills Seminar	1
CLT 115	Immunology and Serology	2
CLT 120	Clinical Laboratory Skill Development	4
<b>Total Credit Hours</b>		<b>70</b>

## Full-Time Academic Plan

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**PLEASE NOTE:** If you originally enrolled at STLCC prior to Spring 2024, you may need to view an archived catalog (<https://www.stlcc.edu/programs-academics/course-catalog/>) for your correct program requirements. Please speak with an advisor or the program coordinator for more information.

Code	Title	Hours	Prerequisites	Milestones/Notes
<b>First Year</b>				
<b>Fall</b>				
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	
ENG 101	College Composition I (MOTR ENGL 100)	3	Placement score or ENG 030 or ENG 070 with a grade of "C" or better or recommendation of department and Reading Proficiency or concurrent enrollment in RDG 079	
CLT 100	Orientation to the Medical Laboratory	1	Admission to program and Reading Proficiency	
CLT 101	Medical Microbiology	3	Admission to program and Reading Proficiency	
CLT 110	Urinalysis and Body Fluids	2	Admission to the program or permission of the program director and Reading Proficiency	
CHM 101	Fundamentals of Chemistry I (MOTR CHEM 100L)	5	MTH 140S with a minimum grade of "C" or higher, or placement into MTH 140 or higher, and Reading Proficiency	
	<b>Credit Hours</b>	<b>18</b>		
<b>Spring</b>				
CLT 111	Hematology and Coagulation	4	CLT 100 with a minimum grade of "C" or permission of the program director, and Reading Proficiency	
CLT 113	Pathogenic Bacteriology	2	CLT 101 with a minimum grade of "C" or permission of the program director, and Reading Proficiency	
CLT 115	Immunology and Serology	2	CLT 101 with a minimum grade of "C" and Reading Proficiency	
BIO 208	Anatomy and Physiology II	4	BIO 207 with a minimum grade of "C" and Reading Proficiency	
MTH 140	Intermediate Algebra (or MTH 140S or higher)	3	Satisfactory placement and Reading Proficiency	
	<b>Credit Hours</b>	<b>15</b>		

Summer				
CLT 120	Clinical Laboratory Skill Development	4	CLT 110, CLT 111, CLT 113, CLT 115 all with minimum grades of "C" and Reading Proficiency	
ENG 102 or 103	College Composition II (MOTR ENGL 200) or Report Writing (MOTR ENGL 110)	3	ENG 101 with a minimum grade of "C" and Reading Proficiency	
	<b>Credit Hours</b>	<b>7</b>		
Second Year				
Fall				
CLT 211	Parasites, Fungi and Intracellular Pathogens	2	CLT 101 with a minimum grade of "C" or permission of program director, and Reading Proficiency	
CLT 213	Introduction to Clinical Chemistry	2	BIO 208, CHM 101 or CHM 105, CLT 100, MTH 140 (or MTH 140S) or MTH 160 (or MTH 160S), all with minimum grades of "C" or permission of program director, and Reading Proficiency	
CLT 202	Clinical Practice I	4	CLT 120 with a minimum grade of "C" and Reading Proficiency	
CLT 215	Immunohematology	4	CLT 115 with minimum grade of "C" or permission of program director, and Reading Proficiency	
XXX xxx	Health and Wellness Elective ( <a href="http://catalog.stlcc.edu/course-descriptions/courses/hw/">http://catalog.stlcc.edu/course-descriptions/courses/hw/</a> )	1		
	<b>Credit Hours</b>	<b>13</b>		
Spring				
CLT 219	Professional Skills Seminar	1	CLT 202 with a grade of "S" or permission of the program director and Reading Proficiency	Apply for graduation
CLT 217	Clinical Chemistry	5	CLT 213 with a minimum grade of "C" or permission of program director, and Reading Proficiency	
CLT 207	Clinical Practice II	4	CLT 202 with a grade of "S" and Reading Proficiency	
XXX xxx	Social & Behavioral Sciences: Civics Requirement ( <a href="http://catalog.stlcc.edu/general-education/">http://catalog.stlcc.edu/general-education/</a> )	3		
SOC 101 or PSY 200	Introduction to Sociology (MOTR SOCI 101) or General Psychology (MOTR PSYC 100)	3	Reading Proficiency or concurrent enrollment in RDG 079	
XXX xxx	Health and Wellness Elective ( <a href="http://catalog.stlcc.edu/course-descriptions/courses/hw/">http://catalog.stlcc.edu/course-descriptions/courses/hw/</a> )	1		
	<b>Credit Hours</b>	<b>17</b>		
	<b>Total Credit Hours</b>	<b>70</b>		

\*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.