

CLINICAL LABORATORY TECHNOLOGY

The Clinical Laboratory Technology (CLT) program prepares individuals for rewarding professional careers that combine medicine and science. Students learn to perform diagnostic analyses using state-of-the-art laboratory equipment, interpret test results, and consult with physicians in determining and monitoring necessary treatment for patients. The program integrates general education and professional courses with hands-on experiences in a variety of clinical lab settings. Online education is combined with on-campus labs to prepare students with the technical skills needed to work in the following laboratory departments: hematology, microbiology, chemistry, blood bank, immunology, microscopy and phlebotomy. Upon completion of the associate degree, students are eligible to sit for a national certification exam offered by the American Society of Clinical Pathology (ASCP).

The clinical laboratory assistant (CLA) program leads to a basic vocational certificate and provides students with the skills necessary to collect and process specimens, prepare slides, set up cultures, and perform point-of-care testing procedures.

Accreditation

The Clinical Laboratory Technology program is accredited by:

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
5600 N. River Rd., Suite 720
Rosemont, IL 60018
Phone: 773-714-8880
naacls.org

Entrance Requirements: Clinical Laboratory Technology

- Clinical Lab Technology Admission Requirements
- Grade of C or better in BIO 110 or transfer credit equivalent to BIO 110 and MTH 098
- Grade of C or better in CHM 101 or transfer credit equivalent to CHM 101 and MTH 098 or grade of C or better in one year of high school chemistry within the last five years
- Grade of C or better in MTH 097 or equivalent or satisfaction of other placement criteria

Entrance Requirements: Clinical Laboratory Assistant

- Grade of C or better in BIO 110 or transfer credit equivalent to BIO 110 and MTH 098 or grade of C or better in one year of high school biology within the last five years
- Grade of C or better in CHM 101 or transfer credit equivalent to CHM 101 and MTH 098 or grade of C or better in one year of high school chemistry within the last five years

Preference is given to candidates who are legal residents of Community College District 509, Elgin Community College. Working in district does not meet this requirement. Qualified applicants from other districts may be considered if space is available. Go to [Joint Agreements](#) to learn more.

Admission Procedures

Admission to the program is selective. For more information, please see the [admission requirements](#).

Program Requirements

Students must complete all required courses with grades of C or better to be eligible to sit for the medical laboratory technician certification exam offered by the American Society of Clinical Pathology (ASCP). Prior credits in biology, chemistry, or mathematics must have been earned within the last 10 years. Students must provide their own uniform and transportation to and from all clinical sites.

Students who complete the clinical laboratory assistant certificate and who continue in the CLT program will receive credit for CLT 100 Intro to Clinical Lab Technology and CLT 120 Clinical Lab Technology Practicum I.

Policies and Procedures

Students applying to health professions programs must provide a valid Social Security number in order to be screened for placement on the Illinois Health Care Worker Background Check Registry. Students must be listed on this registry in order to be eligible to complete required clinical training. Students demonstrating a positive background check will be denied admission to any health professions program. A valid Social Security number is also needed to apply for licensing/certification exams.

Before attending clinical training, students must have the following documentation on file in the health professions division office: negative drug test results, completed medical form which includes proof of immunizations/titer results, and proof of health insurance coverage.

Health professions students will be required to update their drug test, TB test/TB survey, and flu vaccine on an annual basis. Students demonstrating a positive drug test will be dismissed from the health professions division.

The standards, policies, and procedures of the clinical laboratory technology program are published in the [clinical laboratory technology student handbook](#).

- Collect and process specimens independently.
- Apply test principles in the performance of diagnostic lab analyses.
- Correlate test results with clinical disease states.
- Evaluate quality control results before reporting test results.
- Follow established laboratory safety policies.
- Organize and prioritize tasks appropriately.
- Initiate measures to correct technical problems.
- Maintain quality performance under stress.
- Convey written and verbal information to others in a timely manner.
- Follow written and verbal instructions accurately.
- Use computer technology to operate equipment and manage information.
- Develop a sense of responsibility to the patient and the employer.
- Treat co-workers with respect and maintain professionalism in appearance and conduct.
- Remain adaptable to changes that occur in the profession.
- Grow intellectually through continuing education.

Clinical Laboratory Technology - Associate of Applied Science

Course	Title	Credit Hours
First Semester		
Select one of the following:		5-8
BIO 240	Human Anatomy and Physiology	
BIO 245 & BIO 246	Human Anatomy and Physiology I and Human Anatomy and Physiology II	
MTH 112	College Algebra	4
ENG 101	English Composition I	3
Select one of the following:		2.5-5
CLT 100	Intro to Clinical Lab Technology	
CLT 105 & CLT 106	Clinical Lab Assistant Skills I and Clinical Lab Assistant Skills II	
CLT 120	Clinical Lab Technology Practicum I	0.5
Total		15-20.5
Second Semester		
CHM 142	General Chemistry I	5
ENG 102	English Composition II	3
Social/Behavioral Science Elective		3
CLT 110	Clinical Microscopy	3
CLT 112	Clinical Hematology	3.5
Total		17.5
First Summer Semester		
BIO 265	Microbiology	4
CLT 114	Clinical Immunology	2.5
Total		6.5
Third Semester		
BIO 113 or CHM 170	Molecular & Cellular Biology or Elementary Organic Chemistry	4-5
CLT 210	Clinical Chemistry	3.5
CLT 212	Clinical Microbiology	3.5
CLT 220	Clinical Lab Technology Practicum II	5
Total		16-17
Fourth Semester		
Required Liberal Education Course		3
CLT 214	Clinical Immunohematology	3
CLT 222	Clinical Lab Technology Pract III	5
CLT 230	Clinical Lab Technology Conference	1
Total		12
Program Total		67-73.5

Clinical Laboratory Assistant - Basic Vocational Specialist

Course	Title	Credit Hours
First Semester		
CLT 101	Phlebotomy	3
CLT 105	Clinical Lab Assistant Skills I	2
CLT 106	Clinical Lab Assistant Skills II	3
Total		8
Second Semester		
CLT 120	Clinical Lab Technology Practicum I ¹	1.5
Total		1.5
Program Total		9.5

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Students with one year of full-time phlebotomy experience may apply for proficiency credit for CLT 120 Clinical Lab Technology Practicum I.

All CLT courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science degrees.

CLT 100 Intro to Clinical Lab Technology (2.5) 2,1

This introductory course will familiarize the student with the professional responsibilities of the clinical laboratory technician. Units on medical terminology, laboratory safety, infection control, use of diagnostic equipment, and quality control will be covered. Students develop basic phlebotomy skills in preparation for CLT 120. (1.2) Proficiency Credit Available Pass/No Credit Not Available

Clinical Laboratory Technology Program

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session**.

In-District Tuition/Fees: \$480 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Acceptance into Clinical Laboratory Technology program or program director consent

Semester(s) Offered: Fall

CLT 101 Phlebotomy (3) 3,0

Students will learn basic techniques for blood specimen collection. Units on anatomy and physiology of the circulatory system, medical terminology, specimen processing, laboratory safety, infection control, quality control, and professional skills will also be covered. Students who wish to become certified as phlebotomy technicians must also complete 1.5 credits of CLT 120. (1.2) Proficiency Credit Available (2 EST) Pass/No Credit Not Available

Clinical Laboratory Technology Program

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In-District Tuition/Fees: \$546 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Admission into the Phlebotomy program.

Semester(s) Offered: Fall, Spring and Summer

CLT 105 Clinical Lab Assistant Skills I (2) 1,2

The Clinical Laboratory Assistant is an important member of the clinical laboratory team. CLAs are responsible for specimen collection and processing, reagent preparation, instrument maintenance, and performance of basic laboratory tests. Units on medical terminology, laboratory safety, infection control, use of diagnostic equipment, quality control, customer service skills, and laboratory information systems will be covered. (1.2) Proficiency Credit Available (2 ME) Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session**.

In-District Tuition/Fees: \$364 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Acceptance into Clinical Laboratory Assistant program or program director consent

Semester(s) Offered: Spring

CLT 106 Clinical Lab Assistant Skills II (3) 2,2

This course builds on the skills learned in CLT 105. Students will perform basic laboratory procedures in urinalysis, hematology, chemistry, microbiology, and immunology. Students who successfully complete CLT 105 and CLT 106 will be granted credit for CLT 100 in the Clinical Laboratory Technician program. (1.2) Proficiency Credit Available (2 ME) Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session**.

In-District Tuition/Fees: \$496 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in CLT 105 or program director consent

Semester(s) Offered: Spring

CLT 110 Clinical Microscopy (3) 2,2

Students will learn basic microscopy techniques used in performing body fluid analyses. Anatomy and physiology of the urinary system, renal disease states, diagnostic test principles and procedures, and clinical correlation of lab results will be covered. (1.2) Proficiency Credit Available Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session**.

In-District Tuition/Fees: \$546 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in BIO 240 or BIO 246 and CLT 100 or CLT 106 or program director consent

Semester(s) Offered: Spring

CLT 112 Clinical Hematology (3.5) 2,3

Students will learn basic lab techniques used in performing hematology/hemostasis analyses. Hematopoiesis, hematologic disorders, diagnostic test principles and procedures, instrumentation, and clinical correlation of lab results will be covered. (1.2) Proficiency Credit Available Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session**.

In-District Tuition/Fees: \$612 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in BIO 240 or BIO 246 and CLT 100 or CLT 106 or program director consent

Semester(s) Offered: Spring

CLT 114 Clinical Immunology (2.5) 2,1

Students will learn basic lab techniques used in performing serologic analyses. The immune system, the immune response in health and disease, diagnostic test principles and procedures, and clinical correlation of lab results will be covered. (1.2) Proficiency Credit Available Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session**.

In-District Tuition/Fees: \$480 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in BIO 240 or BIO 246 and CLT 100 or CLT 106 or program director consent

Semester(s) Offered: Summer

CLT 120 Clinical Lab Technology Practicum I (.5-1.5) 0,1.5

(0, 1.5-4.5) Practicum I will provide the student with supervised clinical experience in a phlebotomy setting. Students who have completed CLT 101 and earn 1.5 credits of CLT 120 are eligible to take a national certification exam for phlebotomy technicians. (1.2) Proficiency Credit Available (2 EST) Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session**.

In-District Tuition/Fees: \$348 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Program director consent

Semester(s) Offered: Fall, Spring and Summer

CLT 210 Clinical Chemistry (3.5) 2,3

Students will learn basic lab techniques used in performing biochemical analyses. Units on carbohydrates, proteins, lipids, enzymes, hormones, electrolytes, and toxicology will include diagnostic test principles and procedures, instrumentation, and clinical correlation of lab results. (1.2) Proficiency Credit Available Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session** .

In-District Tuition/Fees: \$612 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in CHM 142 and CLT 100 or CLT 106 or program director consent

Semester(s) Offered: Fall

CLT 212 Clinical Microbiology (3.5) 2,3

Students will learn sterile techniques used to isolate and identify microorganisms. Antibiotic susceptibility testing and clinical correlation of lab results will be covered. Supplemental units on parasitology, mycology, and virology will be introduced. (1.2) Proficiency Credit Available Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session** .

In-District Tuition/Fees: \$612 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in BIO 265 and CLT 100 or CLT 106 or program director consent

Semester(s) Offered: Fall

CLT 214 Clinical Immunohematology (3) 2,2

Students will learn basic lab techniques used in blood typing, compatibility testing, and antibody identification. Other functions of the blood bank including donor blood collection, screening, and component processing will be covered. (1.2) Proficiency Credit Available Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session** .

In-District Tuition/Fees: \$546 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in CLT 114 or program director consent

Semester(s) Offered: Spring

CLT 220 Clinical Lab Technology Practicum II (5) 0,15

Practicum II will provide the student with supervised experience in a clinical laboratory. Student rotations will be scheduled in hematology and chemistry departments. (1.2) Proficiency Credit Available Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session** .

In-District Tuition/Fees: \$810 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in CLT 110, CLT 112 and CLT 210 or program director consent

Semester(s) Offered: Fall, Spring and Summer

CLT 222 Clinical Lab Technology Pract III (5) 0,15

Practicum III will provide the student with additional supervised experience in a clinical laboratory. Student rotations will be scheduled in immunology, microbiology, and blood bank departments. (1.2) Proficiency Credit Available Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session** .

In-District Tuition/Fees: \$810 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in CLT 114, CLT 212, and CLT 214 or program director consent

Semester(s) Offered: Fall, Spring and Summer

CLT 230 Clinical Lab Technology Conference (1) 1,0

This capstone course will cover management and education topics related to clinical laboratory science. Students will prepare resumes, design and operate a mock laboratory, and review for certification exams. (1.2) Proficiency Credit Available Pass/No Credit Not Available

SPECIAL NOTE:Students enrolled in this program are required to have the following: 1) criminal background check, 2) drug test, 3) lab tests to prove immunity to common illnesses, 4) TB test, 5) health insurance, 6) uniform, 7) social security card 8) fully vaccinated for COVID-19. Explore the Clinical Laboratory Technology Program and come to an **information session** .

In-District Tuition/Fees: \$282 (effective 2022/23 academic year)

In-district tuition rates are subject to change based on Board approval.

Prerequisite: Grade of C or better in CLT 120 and CLT 220 or program director consent

Semester(s) Offered: Spring