

MEDICAL LABORATORY TECHNOLOGY (MDLY)

Ontario College Advanced Diploma | 6 semesters | Barrydowne Campus

As a critical member of the healthcare team, Medical Laboratory Technologists are health professionals that perform complex laboratory analyses on blood, body fluids, tissues and cells in order to generate results that are used by physicians for the diagnosis and treatment of patients and the monitoring and prevention of disease. Medical Laboratory Technologists combine theoretical knowledge and operate sophisticated analyzers while accurately performing test procedures in a fast-paced laboratory environment.

As a certified Medical Laboratory Technologist, you'll find a wide range of career opportunities in hospital and private laboratories, public health departments, post-secondary institutions, consulting, sales, and more.

A combination of theoretical and laboratory courses and clinical practicum training will prepare you for entry-level medical laboratory technology practice in each of the following five disciplines:

1. Clinical Hematology - blood and blood disorders including coagulopathies
2. Transfusion Science - preparation and transfusion of blood and blood products
3. Clinical Chemistry - determination of the presence, absence, or quantity of chemical substances in body fluids
4. Clinical Microbiology - detection of bacteria, fungi, viruses, and other pathogens
5. Clinical Histotechnology - gross dissection and preparation of body fluids and tissues for microscopy

Please note that students will perform phlebotomy techniques in each semester of study.

Program Highlights

- 3 years – 6 semesters
- Third year clinical practicum training in an accredited hospital or private laboratory
- Theoretical and laboratory training using sophisticated analyzers in clinical hematology, transfusion science, clinical chemistry, clinical microbiology, and clinical histotechnology
- Graduates are eligible to write the national certification examination administered by the Canadian Society for Medical Laboratory Science (CSMLS (<https://www.csmls.org/>))
- Curriculum delivered by experienced and knowledgeable faculty

Fieldwork/Placement

In the final year of the program, students will complete their clinical placement courses at an accredited clinical laboratory. Clinical placement semesters are continuous with no break during Study Week. There are two clinical placement courses, spread over the final two semesters in the MDLY program. Students have a short break between each of the semesters, as per the Academic Schedule. Cambrian has affiliated clinical partnerships with a number of public and private laboratories across Canada that will provide excellent clinical training to Cambrian's MDLY students. Students may be placed at any one of the clinical

placement sites that are affiliated with Cambrian's MDLY program. Students may be placed at a site that is different than their preferred location. Please note that all related clinical placement expenses such as travel, parking, and accommodation are the responsibility of the student.

Additional Requirements

Students will be required to provide proof of certain immunizations and non-medical requirements to work with samples in medical laboratories both at the college and on placement.

For our on-campus labs, students must provide proof of:

- WHMIS certificate
- Tetanus
- Diphtheria
- Hepatitis B

To off-site clinical placements, students must provide proof of:

- WHMIS certificate
- Ministry of Labour 4-Step Worker Health & Safety Awareness Training (Bill 18)
- AODA certificate
- Respiratory Mask Fit Testing (N95-3M models)
- Criminal Record Check, including Vulnerable Sector Check (contact your program coordinator if you have a positive CPIC)
- Immunization requirements:
 - Varicella
 - Measles, Mumps, Rubella
 - Tuberculosis Screening
 - Diphtheria, Tetanus, Pertussis
 - Hepatitis B
 - Influenza Vaccination
 - COVID Vaccination

Registration to Practice

Graduates are eligible to write the national certification examination conducted by the Canadian Society for Medical Laboratory Science (CSMLS). Certification qualifies you for registration with the College of Medical Laboratory Technologists of Ontario (CMLTO) or other provincial equivalent which is a requirement to practice in Canada.

Accreditation

The Medical Laboratory Technology program is an accredited program with Accreditation Canada (<https://accreditation.ca/health-education-accreditation/>).

Limited Enrolment

Please note that possession of the prerequisite course requirements does not guarantee admission. If the number of qualified applicants exceeds the number of places available in the program, the College reserves the right to select from among those applicants. All students applying by February 1 will be given equal consideration. Preference will be given to Ontario residents. Please see the Limited Enrolment F.A.Q.'s on our website under "How to Apply (<http://cambriancollege.ca/apply/>)" for further details.

Quick Links

How to Apply (<http://cambriancollege.ca/apply/>)

Health Sciences, Nursing, and Emergency Services (<http://cambriancollege.ca/field-of-study/health-sciences-nursing-emergency-services/>)

Admission Requirements

For graduates of the new curriculum Ontario Secondary School Diploma (30 credits) curriculum or equivalent or mature student status, including:

- Any grade 12 English (C) or (U)
- Any grade 12 mathematics (C) or (U)
- Any grade 12 chemistry (C) or (U)
- Any grade 11 (U) or (C) or grade 12 biology (U)

Graduates from the Medical Laboratory Assistant (MDLA) (<https://catalog.cambriancollege.ca/mdla/>) program at Cambrian College can apply to the Medical Laboratory Technology (MDLY) program with advanced standing (minimum grade requirements apply in order to transfer credits).

Additional Information

Registered CSMLS members pay a reduced cost for the national certification exam. Students can register as members with the CSMLS for periods of 2 years or 4 years at a reasonable additional cost. In 2021, the cost to write the CSMLS exam for a student member was \$1135 while the cost for a non-member was \$1435. There are many additional benefits to being a student member with the CSMLS. For more information, please visit the CSMLS (<https://www.csmls.org/>).

APPLY NOW! (<https://www.ontariocolleges.ca/en/apply-now/>)

Program Delivery

2023-2024

This program will be delivered in the following terms:

Fall Term Start

1. SEMESTER 1 Fall 2023
2. SEMESTER 2 Winter 2024
3. SEMESTER 3 Fall 2024
4. SEMESTER 4 Winter 2025
5. SEMESTER 5 Fall 2025
6. SEMESTER 6 Winter 2026

For specific term start/end dates and other key dates/deadlines, please see the Academic Schedule (<http://cambriancollege.ca/apply/how-to-apply/academic-schedule/>) on our website.

Program of Study for 2023-24 Academic Year

Semester 1		Credits
ENG 1121	Research & Writing/Health Sciences	3
MLT 1300	Quality Control Practices	3
BIO 1311	Anatomy and Terminology	3
MLT 1301	Lab Equipment and Safety	4
MTH 1310	Lab Mathematics	3
One General Education courses. ¹		3
Credits		19
Semester 2		Credits
MLT 1302	Molecular Techniques	3
MLT 1303	Lab Techniques - Microbiology	4
MLT 1304	Lab Techniques - Hematology	3

MLT 1305	Lab Techniques - Chemistry	3
MLT 1306	Histo/Cyto /Specimen Collection	3
MLT 1307	Histo/Cyto/Specimens Lab	3
MLT 1308	Introduction to Transfusion	3

Credits 22

Semester 3

BIO 1301	Clinical Microbiology II	2
BIO 1302	Clinical Microbiology II Laboratory	3
CHM 1320	Clinical Chemistry II	2
CHM 1321	Clinical Chemistry II Lab	3
MLT 1310	Clinical Histotechnology II	2
MLT 1311	Clinical Histotechnology II Lab	3
MLT 1312	Transfusion Science II	2
MLT 1313	Transfusion Science II Lab	3
MLT 1314	Clinical Hematology II	2
MLT 1315	Clinical Hematology II Laboratory	3

Credits 25

Semester 4

BIO 1303	Clinical Microbiology III	2
BIO 1304	Clinical Microbiology III Laboratory	3
CHM 1440	Clinical Chemistry III	2
CHM 1441	Clinical Chemistry III Lab	3
MLT 1400	Clinical Histotechnology III	2
MLT 1401	Clinical Histotechnology III Lab	3
MLT 1402	Clinical Hematology III	2
MLT 1403	Clinical Hematology III Laboratory	3
MLT 1404	Transfusion Science III	2
MLT 1405	Transfusion Science III Lab	3

Credits 25

Semester 5

MLT 1031	Comprehensive Review I	1
MLT 1500	Clinical Placement I	12
One General Education Course. ¹		3

Credits 16

Semester 6

MLT 1032	Comprehensive Review II	1
MLT 1600	Clinical Placement II	12
One General Education Course. ¹		3

Credits 16

Total Credits 123

¹ For more information regarding General Education courses, click here.

Fees

Tuition and Ancillary Fees

Please see our fees page (<http://cambriancollege.ca/fees/>) for the breakdown of tuition and mandatory ancillary fees by program and semester for both domestic and international students.

Books & Supplies

The cost of books and supplies for each year of the Medical Laboratory Technology program is approximately \$1,350. This is the best information

available at the time of publishing to the website and is subject to change.

Graduate Options

Employment Opportunities

While most medical laboratory technologists (MLTs) work in public hospital laboratories, MLTs also find challenging employment in other areas. From industrial research and public health laboratories to forensic and pharmaceutical laboratories, the MLT's analytical, scientific, and technical skills are a valuable asset. Other career options may include:

- Consulting
- Sales and marketing
- Research and product systems
- Laboratory information systems
- Supervision / administration / management
- Education
- Public health / infection control
- Technical support
- Quality assurance / total quality improvement
- Forensic biological sciences

College/University Degree Opportunities

Graduates from this program may continue their studies at college/ university and may receive credit for their prior College education.

Refer to College/University Agreements (<http://www.cambriancollege.ca/agreements/>) for further information.

Contacts

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INTERNATIONAL ADMISSIONS

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