

# MEDICAL LABORATORY TECHNOLOGY (MDLY)

## Ontario College Advanced Diploma | 6 semesters | Barrydowne

Become a behind-the-scenes member of the health care team. Cambrian's program will prepare you with the medical detective skills to analyze and interpret scientific data to assist in the diagnosis and treatment of disease. As a certified medical laboratory technologist, you'll find a wide range of career opportunities in hospitals, private practices/labs, consulting, sales, and more.

A combination of theoretical and laboratory courses and clinical practicum training 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

### Program Highlights

- 3 years – 6 semesters
- 3rd year clinical practicum training in an accredited hospital or private laboratory
- theoretical and practical training in clinical hematology, transfusion science, clinical chemistry, clinical microbiology, and clinical histology
- Graduates are eligible to write the national certification examination administered by the Canadian Society for Medical Laboratory Sciences (CSMLS)

### Fieldwork/Placement

In the final two semesters of the program, you will be placed in an accredited clinical laboratory where you will function, under supervision, as a member of the clinical laboratory team. You may be required to complete your clinical placement out of town. You must be financially prepared to relocate and support yourself away from Sudbury for your clinical placement. You may complete your clinical placement at one of the following sites:

- Thunder Bay Regional Health Sciences Centre, Thunder Bay
- Timmins and District Hospital, Timmins
- West Nipissing General Hospital, Sturgeon Falls
- West Parry Sound Health Centre, Parry Sound
- Blind River District Health Centre, Blind River
- Dryden Regional Health Centre, Dryden
- Health Sciences North/ Horizon Santé-Nord, Sudbury
- Kirkland and District Hospital, Kirkland Lake
- Lake of the Woods District Hospital, Kenora

- LifeLabs, Sudbury
- North Bay Regional Health Centre, North Bay
- Riverside Health Care Facilities, Fort Frances
- Sault Area Hospital, Sault Ste. Marie
- Sensenbrenner Hospital, Kapuskasing
- Meno-Ya-Win Health Centre, Sioux Lookout
- St. Joseph's Health Centre, Elliot Lake
- Hôpital Notre-Dame Hospital, Hearst
- Temiskaming Hospital, New Liskeard
- Georgian Bay General Hospital, Midland
- Hanover District Hospital, Hanover
- Grey Bruce Health Service, Owen Sound
- Muskoka Algonquin Healthcare, Huntsville / Bracebridge
- Royal Victoria Regional Health Center, Barrie

### Registration to Practice

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

#### Limited Enrolment

Please note that possession of the 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:

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

Please note: A minimum of 75% is required in each prerequisite course.

Recommended:

- computer competency in relevant software

### Advanced Standing

Graduates of recognized Medical Laboratory Assistant programs may be eligible for advanced standing into the second semester of the program, provided there are seats and clinical placements available.

Note: Cambrian College's Pre-Health Sciences Pathway to Advanced Diplomas and Degrees (PHPG) program is the designated preferred

preparatory program for admission to Cambrian College's limited enrolment health sciences programs. Limited enrolment programs are identified within the detailed program descriptions. The minimum GPA and grades required for successful admission will be determined by the quality and quantity of the applicant pool.

## Additional Information

Registered CSMLS members pay a reduced cost for the national certification exam. Students can register as members with CSMLS for periods of 2 years or 4 years at a reasonable additional cost. In 2017, the cost to write the CSMLS exam for a member was \$720 while the cost for non-members was \$950. For more information, please visit the CSMLS website at [www.csmls.org](http://www.csmls.org).

**APPLY NOW!** (<http://www.ontariocolleges.ca/apply>)

## Program Delivery

### 2018-2019

This program will be delivered in the following terms:

#### Fall Term Start

1. **SEMESTER 1** Fall 2018
2. **SEMESTER 2** Winter 2019
3. **SEMESTER 3** Fall 2019
4. **SEMESTER 4** Winter 2020
5. **SEMESTER 5** Fall 2020
6. **SEMESTER 6** Winter 2021

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

Semester 1		Credits
BIO 1107	Anatomy Physiology I	3
CHM 1011	Clinical Chemistry I	2
ENG 1121	Research Writing/Health Sciences	3
MLT 1024	Principles and Practice I	5
MLT 1009	Immunology	2
MLT 1020	Quality	2
MLT 1021	Laboratory Safety	2
The following General Education course:		3
SSC 1002	Thinking, Reasoning, Relating	3
One of the following General Education courses:		3
GER 1200	Introduction To Gerontology	3
SOC 1205	Social Issues/Social Welfare in CA	3
Term Credits:		25
Semester 2		
BIO 1017	Clinical Microbiology I	5
BIO 1207	Anatomy Physiology II	3
CHM 1004	Clinical Chemistry II	5
MLT 1010	Molecular Techniques	3
MLT 1011	Principles Practice II	4
MLT 1012	Histotechnology I	2
MLT 1013	Clinical Hematology I	2

One of the following General Education courses:		3
PSY 1003	Concurrent Disorders, Mental Health Addictions	3
SOC 1000	Introduction To Sociology	3
Term Credits:		27
Semester 3		
BIO 1012	Clinical Microbiology II	6
CHM 1006	Clinical Chemistry III	6
MLT 1014	Histotechnology II	5
MLT 1015	Clinical Hematology II	6
MLT 1025	Transfusion Science I	6
Term Credits:		29
Semester 4		
BIO 1013	Clinical Microbiology III	6
CHM 1007	Clinical Chemistry IV	6
MLT 1017	Transfusion Science II	6
MLT 1019	Clinical Hematology III	6
MLT 1022	Histotechnology III	5
Term Credits:		29
Semester 5		
MLT 3560	Clinical Transfusion Science <sup>1</sup>	8
MLT 3562	Clinical Chemistry <sup>1</sup>	8
MLT 3564	Clinical Hematology <sup>1</sup>	8
MLT 3566	Clinical Microbiology <sup>1</sup>	8
MLT 3568	Clinical Histotechnology <sup>1</sup>	8
Term Credits:		40
Semester 6		
MLT 1023	Comprehensive Exam Review	2
Term Credits:		2
Total Credits:		152

<sup>1</sup> Full Year Course

## 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 Year 1 is approximately \$2,000. 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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Program Coordinator

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