



Medical Laboratory Technology

SCHOOL OF HEALTH AND PUBLIC SAFETY

Overview

Join Canada's fourth largest group of healthcare professionals by enrolling in our fast-paced, two-year, full-time Medical Laboratory Technology program.

This program is structured to provide comprehensive training in medical laboratory science, preparing you to contribute effectively to patient care through diagnostics, treatment and prevention of disease.

In this program, you will:

- learn to apply scientific, technical and medical principles in conducting and assessing laboratory tests within healthcare environments
- learn about the area of clinical pathology concerned with analyzing bodily fluids
- learn about the detection of pathogenic microorganisms such as bacteria, fungi, parasites and viruses
- study hematology, the diagnosis, treatment and prevention of diseases related to the blood
- study histology, which involves preparing clinical specimens and applying specialized staining and techniques for diagnostic microscopic examination
- perform serological testing to determine the ABO and Rh antigens and prepare and provide blood and blood components to ensure a safe transfusion to patients
- gain professional responsibility, including scope of practice, ethics, communication, critical thinking, accountability and how to collaborate professionally.

In the first year, you will focus on building a strong foundation through classroom instruction and applied simulated laboratory training.

In the second year, you will engage in an in-depth clinical practicum at our partner sites, which provide practical experience across various medical laboratory disciplines. You will be able to integrate knowledge, skills and professional attitudes through real-world clinical experiences and simulation activities.

You will complete the program by writing competency-based practice exams to prepare you for the Canadian Society for Medical Laboratory Science (CSMLS) certification exam.

Once qualified, you will be eligible to work as a medical laboratory technologist in hospital laboratories, medical diagnostic laboratories and specialized research laboratories.

As a graduate, you will be well-equipped to enter the health technology field, a rewarding career critical to the healthcare system, with growing opportunities due to medical advancements and an increasing need for diagnostic services.

Traits, skills and aptitudes

Those in the medical laboratory technology field need:

- fine motor skills
- critical thinking
- communication skills
- the ability to work independently
- to be adaptable
- the ability to work well under stress, maintain professional behaviour and regulate their emotions
- the ability to use technology
- attention to detail
- to tolerate the sight of human blood and tissue
- the ability to assist in transporting, lifting and positioning of patients and equipment
- the ability to meet the physical demands of the job (including spending most hours working on your feet, walking, repetitive

- bending, and repetitive tasks)
- the ability to visualize in three dimensions
- normal colour vision.

Medical laboratory technologists wear personal protective equipment (PPE) for extended periods, which includes exposure to latex and disinfection chemicals.

You may also work extended hours and shiftwork, including evenings and weekends.

You are strongly encouraged to refer to the [ALIS website for career, learning, and employment information for medical laboratory technologists](#) to ensure you can successfully meet the occupational requirements for the program and profession.

Professional designations and certifications

Graduates achieve clinical competence as defined by the [Canadian Society for Medical Laboratory Science](#) (CSMLS) and meet the compliance requirements of Accreditation Canada.

You will be eligible to challenge the CSMLS exam to obtain national certification as a medical laboratory technologist, allowing you to work anywhere in Canada.

Credentials

After successfully completing this program, you'll receive a SAIT Medical Laboratory Technology diploma.

Practicum, Co-op and Work Integrated Learning

Your practicum provides a range of clinical experiences where you'll develop the necessary knowledge, skills and attitudes required to be a medical laboratory technologist. These clinical experiences will focus on five key areas - microbiology, chemistry, hematology, transfusion medicine and histotechnology.

You will be assigned practicum placements with consideration given to your preference of location. However, due to limited availability in Calgary, it might be necessary for you to travel or relocate outside the city. Special considerations will not be accommodated.

In compliance with the practica agreements with our clinical partners, you will be required to provide specific documentation before you can participate in your practicum. [Find out what requirements you need for this program.](#)

Admission requirements

Applicants educated in Canada

All applicants must demonstrate [English language proficiency](#) and meet the following requirements or equivalents, with a combined average of 75%:

- at least 70% in Math 30-1 or at least 75% in Math 30-2, and
- at least 70% in English Language Arts 30-1, and
- at least 70% in Chemistry 30, and
- at least 70% in Biology 30.

You must also achieve a mark of at least 50% in the [School of Health and Public Safety's entrance testing process](#).

SAIT accepts [high school course equivalents](#) for admission for applicants educated outside Alberta.

Applicants educated outside of Canada

All applicants who were educated outside of Canada must demonstrate [English language proficiency](#) and provide proof they meet the program admission requirements with an international document assessment. [Find accepted educational documents and assessment options.](#)

SAIT may also accept courses completed at certain [international post-secondary institutions](#).

Costs

2024/25 tuition and fees

The following estimated costs are effective as of July 1, 2024.

Domestic Students

Year	Number of semesters	Tuition fees	Additional fees	Total per year
1	3	\$9,240	\$2,237	\$11,477
2	3	\$6,336	\$2,072*	\$8,408
Total cost:				\$19,885

The estimated total cost of tuition and fees for domestic students is based on the recommended course load per year.

*You will be ineligible for the UPass in the third semester of the first year and all of the second year.

Books and Supplies

Books, supplies, and uniforms are approximately \$1,600 for the entire program.

This is a bring-your-own-device program with a standard computer hardware and software requirement. See the specific requirements on our [computers and laptops page](#). Chromebooks will not meet the requirements for the software used in this program.

Find your booklist on the [SAIT Bookstore's](#) website. The booklist will be available closer to the program start date. Can't find your program or course? The bookstore didn't receive a textbook list. Contact your program directly to determine if they're still refining course details or if you're in luck; no textbook purchase is required this term.

You are responsible for any additional expenses related to your practicum, including pre-practicum requirements and relocation costs to practicum sites outside of Calgary.

Required personal protective equipment (PPE)

The industry-approved PPE you'll need will be discussed during your first few days of classes.

Your required uniform can be purchased before orientation from any place that sells medical uniforms. Your uniform should consist of:

- a scrub top and bottom
- safety glasses
- comfortable closed-toe and heel shoes. They should also be water-impervious and slip-resistant.

Tech requirements

You will be evaluated on your competency performance level using a tracking system called [CompTracker](#). You will require a wifi-enabled Apple tablet that can run the most up-to-date operating system to support the CompTracker system.

- Any size tablet is acceptable.
- Keyboards are advisable but not mandatory.
- Smartphones are not acceptable devices for CompTracker.

There is a required user license fee of \$165. More information will be shared at orientation.

Additional fees

- The Canadian Society for Medical Laboratory Science (CSMLS) national exam fee is approximately \$1,500 for members or \$2,000 for non-members who are Canadian residents. CSMLS National Association dues for students are approximately \$85. CSMLS national association dues for recent grads are approximately \$150. Refer to [CSMLS.org](#) for more details.
- College of Medical Laboratory Technologist of Alberta (CMLTA) provincial dues are approximately \$285 for recent grads plus \$150 for the initial application fee.
- A fee is associated with obtaining a police information check, including a vulnerable sector check, payable to the police or Royal Canadian Mounted Police (RCMP).

- You must have your immunizations reviewed by the SAIT Health Clinic. There is a \$75 charge to review vaccine history. Any vaccines you need to be administered will result in additional charges.
- A fee of approximately \$50 to \$100 is associated with an electronic student permit checking submission, which is required for clinical practicum placements, payable to Synergy Gateway through the Verified software platform.