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, which involves blood analysis to aid in the diagnosis, treatment, and monitoring of blood-related disorders
- study histology, which involves preparing clinical specimens and applying specialized staining and diagnostic techniques for microscopic examination by a pathologist
- 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.

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.

Medical laboratory technologists gain employment in various laboratory environments including hospitals, medical diagnostic centres and specialized research facilities.

Traits, skills and aptitudes

Those in the medical laboratory technology field need:

- fine motor skills
- critical thinking
- communication skills
- the ability to work independently and as part of a team
- the ability to manage time and prioritize tasks
- to be adaptable
- the ability to work well under stress, maintain professional behaviour, and regulate emotions
- the ability to use technology
- attention to detail
- to tolerate the sight of human blood and tissue
- the ability to meet the physical demands of the job, including but not limited to:
    - spending most hours working on your feet and walking
    - repetitive bending
    - 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 be required to work extended hours and shift work, including during the daytime, evening, and overnight, on both weekdays 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.

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. In addition, practicum shifts may occur during the daytime, evening, and overnight, on both weekdays and weekends.

The healthcare field has a strong focus on health, wellness, and fitness to practice due to the demanding nature of the work and Occupational Health and Safety requirements. As such, special considerations will not be granted based on individual circumstances or preferences, except those stated as protected grounds when an accommodation has been approved.

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.

Accreditations, designations and certifications

This program is accredited by Accreditation Canada.

As an accredited institute, SAIT Medical Laboratory Technology graduates are eligible to challenge the Canadian certification exams, which vary by province and territory.

Credentials

Upon successful completion of this program, you'll be awarded a SAIT Medical Laboratory Technology diploma.

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

2026/27 tuition and fees

The following estimated costs are effective as of July 1, 2026.

The estimated total cost of tuition and fees is based on the suggested schedule of study. Following a modified schedule will impact the fees you pay per semester and may alter final costs.

Domestic Students

Year	Number of semesters	Tuition fees	Additional fees	Total per year
1	3	$10,605	$2,445.75	$13,050.75
2	3	$7,272	$2,445.75	$9,717.75
			Total cost:	**$22,768.50**

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

International Students

The program total is based on the estimated amount you will pay if you enter this program during the 2026/27 academic year. The program total amount listed on your letter of admission may appear higher. This amount is your maximum tuition guarantee for the program. SAIT will not exceed this maximum, regardless of changes in tuition and fees between academic years.

Year	Number of semesters	Tuition fees	Additional fees	Total per year
1	3	$35,175	$2,445.75	$37,620.75
2	3	$24,120	$2,445.75	$26,565.75
			Total cost:	**$64,186.50**

The estimated total cost of tuition and fees for international students is based on the recommended course load per 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. A laptop is preferred over other devices.

Find your booklist on the SAIT Bookstore's website. Booklists are created by semester and available approximately two weeks before classes begin.

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
- comfortable, closed-toe and closed-heel, water-impervious, slip-resistant shoes

Additional fees

- 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).
- The School of Health and Public Safety strongly recommends that students meet Alberta Health Services' Standard for Immunization of Post-Secondary Health Care Students. Fees for completing immunization requirements start at $85, however, may increase, depending on your vaccination history, and any new immunizations you choose to acquire.
- 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.
- A fee of $150-$200 is associated with the CompTracker application used in this program.
- You are responsible for additional expenses related to your practicum, including pre-practicum requirements and relocation costs to practicum sites outside of Calgary.
- The Medical Laboratory Technologist certification exam fee is approximately $1,000-$1,500.