Diagnostic Medical Sonography

SCHOOL OF HEALTH AND PUBLIC SAFETY

Overview

The Diagnostic Medical Sonography program provides comprehensive knowledge and practice in ultrasound technology, a critical component of modern healthcare diagnostics.

It will equip you with the technical expertise and interpersonal skills necessary to assess and evaluate body organs and structures, which will assist physicians in the medical diagnosis and ongoing health management of patients.

In this program, you will:

- learn the science behind high-frequency sound waves and their application in sonography and the instrumentation that produces ultrasound images
- assess and image fetal and gynecologic structures, the intricacies of the heart and the body's circulatory system (arteries and veins), the abdominal cavity, focusing on organs such as the liver, kidneys and pancreas, and superficial tissues, including the thyroid gland and breast tissue
- develop skills to provide quality patient care, from bedside manner to handling sensitive situations
- get an in-depth understanding of the human body's structure and function to enhance imaging
- learn to participate in medical research and maintain high standards of quality control in imaging
- master the performance of various ultrasound scanning procedures with precision and care

You will get hands-on training and practical learning experiences in labs and workplace settings, covering sonography theory and techniques within clinical practice in patient care teams, and enhancing the collaborative skills vital in healthcare.

If you seek a career combining advanced technology with direct patient care, are detail-oriented, and have strong communication skills, this program will prepare you to enter the workforce as a diagnostic medical sonographer, serving patients in hospitals and community clinics.

Traits, skills and aptitudes

Those in diagnostic medical sonography tend to be objective, methodical and innovative.

You need:

- good health and upper body and shoulder strength
- physical dexterity to be able to use your hand, wrist, and arm for prolonged periods
- strong hand-eye coordination
- communication and observation skills
- the ability to visualize in three dimensions
- extensive knowledge of anatomy and physiology
- to be comfortable with human blood and tissue
- attention to detail
- critical thinking skills
- perseverance
- the ability to handle unpleasant situations and work under pressure
- teamwork skills
- to adhere to a high standard of medical ethics at all times

You should enjoy working with all types of people, using technical equipment, and compiling information.

As a diagnostic medical sonographer, you may work in environments where a considerable amount of time is spent standing or sitting while performing tasks that may be repetitive. You should observe safety precautions and ergonomics to reduce the risk of exposure and injury. Individuals with previous chronic or repetitive strain injuries have experienced re-injury or aggravation of these conditions in this program or as a sonographer.

All medical personnel should be comfortable assessing injuries, performing patient care procedures which may be sensitive, and wearing personal protective equipment (PPE) for extended periods. This includes exposure to latex and other disinfectant materials.

You are strongly encouraged to refer to the ALIS website for career, learning, and employment information for diagnostic medical sonographers to ensure you can successfully meet the occupational requirements for the program and profession.

SAIT program pathways

Graduates of SAIT's Pre-Health Sciences program may meet the admission requirements for this program.

Practicum, Co-op and Work Integrated Learning

You will complete required clinical practicums and rotate through different clinical settings to achieve specific clinical objectives.

As a part of completing all practicum rotations in this program, you will complete a practicum pathway, in which you will specialize in one of the following:

- Generalist Sonography and Adult Echocardiography,
- Generalist Sonography and Vascular Sonography, or
- Generalist Sonography alone.

You will be assigned your pathway in accordance with the program's methodology for determining such assignments, prior to any practicum rotations commencing.

You will practice all competencies associated with your assigned practicum pathway, though the course outlines for these practicum rotations may reflect additional competencies that are not practiced, as they are not part of the pathway you have been assigned. In addition, those competencies that are practiced may not be done so consistently within each of your practicum rotations, as per the nature of different site placements and emergent patient needs.

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 of the city or province.

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, and works closely with our Diagnostic Imaging Advisory Committee to ensure our curriculum continues to meet or exceed provincial and national accreditation standards.

Graduates of this program are eligible to write the Sonography Canada registry exams in:

- Generalist Sonography (all graduates)
- Adult Echocardiography Sonography (practicum pathway dependent)
- Vascular Sonography (practicum pathway dependent)

Graduates are also eligible to write the American Registry of Diagnostic Medical Sonography exams.

Specialized Intakes

Some seats in each intake of this program are reserved for applicants currently residing in Saskatchewan, via our interprovincial health training agreements.

Credentials

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

Admission requirements

Applicants educated in Canada

Applicants must demonstrate English language proficiency and meet the following requirements or equivalents:

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

You also must 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 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	2.5*	$11,160	$2,015	$13,175
2	2**	$9,374.40	$1,764.50	$11,138.90
3	1	$3,124.80	$882.25	$4,007.05***
			Total cost:	**$28,320.95**

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

If you began this program prior to July 2026, the following rates apply:

Year	Number of semesters	Tuition fees	Additional fees	Total per year
1	2.5*	$10,200	$2,015	$12,215
2	2**	$8,568	$1,764.50	$10,332.50
3	1	$2,856	$882.25	$3,738.25***
			Total cost:	**$26,285.75**

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

*.5 indicates a combination of full-time semester(s) and part-time semester(s) in the same academic year. In many cases, you'll complete your practicum during this part-time semester. Part-time students are those taking less than nine (9) course credits in a semester.

** The second year of this program is broken up into three semesters, with semesters five and six focused on clinical practicum. Practicum-only semesters are considered part-time studies based on credit load. The two part-time semesters are equivalent to one full-time semester. You are not eligible for the UPass during your practicum semesters.

*** Based on six months of health and dental coverage.

Why are there two tuition rates for domestic students? Learn more about ETI adjustments.

Books and Supplies

Books, supplies, and uniforms are approximately $2,700 for the first year, $600 for the second year, and $500 for the final semester.

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 Windows-based laptop or Apple tablet is required. A mobile phone is not a suitable alternative.

Find your booklist on the SAIT Bookstore's website. Booklists are created by semester, and made available approximately two weeks prior to the commencement of each semester.

Required uniforms and personal protective equipment (PPE)

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

Additional fees

- A fee is associated with obtaining a police information check, including a vulnerable sector check, payable to the police or the 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 required for clinical practicum placements, payable to Synergy Gateway through the Verified software platform.
- A fee is associated with the CompTracker application that is 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.
- Sonography Canada certification exam fees are approximately $1,525. Sonography Canada association dues are $175 per year, with the option to purchase professional liability insurance.