



Welding Engineering Technology

SCHOOL OF MANUFACTURING & AUTOMATION

Overview

Our rigorous Welding Engineering Technology program will equip you with skills in inspection, drafting, weld design and project management.

Guided by industry-experienced instructors, gain a comprehensive understanding of welding processes and train in quality control, welding metallurgy and fabrication techniques in state-of-the-art facilities.

As a student, you will learn the academic fundamentals of welding, structural steel design, advanced pressure vessel design, and construction and testing methodologies.

Through these lessons, you'll develop core skills in:

- practical welding and welding processes
- code and standards competencies for structural steel, piping, vessels and pipelines
- blueprint reading and interpretation
- the utilization of mechanized welding and robotics
- heat treatment and metallurgy
- welding process and procedure development
- non-destructive examination (NDE) techniques
- project management and welding economics
- failure analysis methods and applications.

As a graduate, you'll be primed for roles such as a welding specialist in engineering teams, researcher in welding technologies, supervisor in manufacturing environments, quality control and inspection officer and technical sales representative.

You'll be equipped to make meaningful contributions as a skilled technician across the manufacturing, construction, automotive and aerospace sectors.

Take the first step towards becoming a welding engineering technologist by enrolling today.

Traits, skills and aptitudes

Welding engineering technologists need:

- mechanical aptitude
- attention to detail
- manual dexterity and good hand-eye coordination to handle tools and materials precisely
- mathematical skills and proficiency in applying mathematical concepts such as geometry and trigonometry to practical situations
- problem-solving ability
- physical stamina and endurance to perform physically demanding tasks and the ability to work in various positions and environments
- safety consciousness.

Credentials

After successfully completing this program, you'll receive a SAIT Welding Engineering Technology diploma.

Admission requirements

Applicants educated in Canada

Applicants must demonstrate [English language proficiency](#) and completion of the following courses or equivalents:

- at least 50% in Math 30-1 or at least 70% in Math 30-2, and
- at least 50% in English Language Arts 30-1 or English Language Arts 30-2, and
- at least 50% in Chemistry 20 or Science 30.

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 | 2 | \$8,100 | \$1,608 | \$9,708 |
| 2 | 2 | \$8,100 | \$1,608 | \$9,708 |
| Total cost: | | | | \$19,416 |

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

International Students

| Year | Number of semesters | Tuition fees | Additional fees | Total per year |
|--------------------|---------------------|--------------|-----------------|-----------------|
| 1 | 2 | \$21,690 | \$1,608 | \$23,298 |
| 2 | 2 | \$21,690 | \$1,608 | \$23,298 |
| Total cost: | | | | \$46,596 |

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

Books and Supplies

Books and supplies are approximately \$1,600 in the first year and \$1,000 in the second year.

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](#).

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.

Required equipment/tools

Your tools will be provided.

Required personal protective equipment (PPE)

You will require CSA-approved steel-toe boots and safety glasses, welding gloves, earplugs (supplied), a good-quality welding helmet and FR coveralls or an appropriate welding helmet.

We recommend waiting to purchase your equipment until after you start the program. We will discuss the industry-approved PPE in class.