Electrical Engineering Technology

MACPHAIL SCHOOL OF ENERGY

Overview

The Electrical Engineering Technology program will equip you with a diverse skill set in the dynamic field of electrical engineering.

This robust program is your conduit to a future in both renewable and conventional energy. It lays a foundation for lifelong learning, allowing you to keep pace with rapidly evolving electrical engineering technologies.

You will:

- gain a deep understanding of electricity and power generation, transmission and distribution systems, including the integration of renewable energy sources
- learn the principles of electrical circuit design and apply them to create efficient, safe and reliable electrical systems
- master the technologies and electronics that automate processes and control systems, which are essential for modern industrial operations
- get hands-on experience in labs that simulate real-world electrical engineering challenges
- develop project management skills specific to electrical engineering projects, including planning, execution and quality control
- become well-versed in industry standards and codes, including national and international electrical codes and standards, to ensure compliance in all aspects of your work.

Prepare for the workforce with professional skills training, including communication, teamwork and problem-solving. Connect with industry professionals through internships, co-op placements and industry-sponsored projects.

Explore electrical engineering career opportunities across various sectors, such as utility companies, electrical equipment manufacturers and industrial automation firms.

This program is designed for those who envision a career where they can contribute to the efficient use of energy, support the development of smart grids, and innovate within electrical design and automation sectors.

As a graduate, you will be prepared to step into construction, operation and infrastructure maintenance roles. With additional education and experience, you can move into manager, inspector or power system electrician roles.

Flexible learning options

This program may be taken in a blended delivery format to allow you the flexibility to work while studying.

This option is available beginning in July (summer semester) each year and spans three years. Classes in this cohort are held online in the evenings and on weekends.

Journeyperson electricians may be eligible for course credit and can begin classes in September (fall semester.)

Traits, skills and aptitudes

Those who work in electrical engineering tend to be objective, innovative and methodical.

You need:

- the ability to adapt to change and adopt new ideas
- an aptitude in math and science, particularly physics
- the ability to study and interpret plans and diagrams, solve problems with circuits, and test materials and products
- leadership skills and the ability to work well with others as part of a team
- speaking and writing skills.

In some positions, good colour vision is important.

You should enjoy working with tools, computers, instruments and machinery, being precise and methodical in your work, and finding

creative solutions to problems.

Academic path

Journeyperson electricians and those with related work experience or post-secondary education may be eligible to receive some advance credit for courses in this program.

Professional designations and certifications

This program is nationally accredited by Technology Accreditation Canada (TAC) and the Canadian Council of Technicians and Technologists at the technologist level.

Graduates are eligible for membership in the Association of Science and Engineering Technology Professionals of Alberta (ASET.)

Credentials

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

Practicum, Co-op and Work Integrated Learning

As part of your final capstone project, you'll work in groups to apply what you've learned to address an industry-related technical problem.

Your team's work will be supervised by an instructor and industry mentor. Each team will showcase their work at an event open to faculty, other students and invited industry professionals.

Admission requirements

Applicants educated in Canada

All applicants must demonstrate English language proficiency and meet all of the following requirements or equivalents:

- at least 60% in Math 30-1 or 75% in Math 30-2, and
- at least 60% in English Language Arts 30-1 or 75% in English Language Arts 30-2, and
- at least 60% in Physics 20.

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 outlined above 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

2025/26 tuition and fees

The following costs are effective as of July 1, 2025.

The estimated total cost of tuition and fees is based on the day-time, two-year suggested schedule of study. Following the evening/weekend blended 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

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1	2	$6,732	$1,668.60	$8,400.60
2	2	$7,038	$1,668.60	$8,706.60
			Total cost:	**$17,107.20**

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 2025/26 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	2	$19,800	$1,668.60	$21,468.60
2	2	$20,700	$1,668.60	$22,368.60
			Total cost:	**$43,837.20**

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 $1,000 for the first year and $500 for the 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 personal protective equipment (PPE)

PPE is required in various labs. You'll need CSA-approved (green triangle) protective footwear and CSA Z94.3 (class 1) safety glasses with side shields.

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