Petroleum Engineering Technology

MACPHAIL SCHOOL OF ENERGY

Overview

Drill into the core of the energy industry with our Petroleum Engineering Technology program. This two-year diploma is crafted for those who want to make a tangible impact in the world of oil and gas in Alberta and beyond.

From uncovering new energy reserves to optimizing field operations, this program offers training in all facets of the upstream petroleum industry.

This sector involves the search for potential underground or underwater oil and gas fields, drilling of exploratory wells, and subsequently drilling and operating the wells that recover and bring the crude oil or raw natural gas to the surface.

In this program, you will:

- gain a proficient understanding of the geophysical and geological principles underlying petroleum and related subsurface resources exploration
- obtain technical expertise in drilling methods, well design and field operations management
- develop competency in applying computer technology for simulation, economic analysis and reserve determination
- discover how to assess the viability of potential drilling sites and manage the lifecycle of a drilling operation
- learn current environmental and safety regulations to ensure compliance in all operations.

Our program emphasizes practical skills. Engage with real-world simulation software and gain hands-on experience in our cutting-edge labs. Learn from seasoned professionals and engineers who bring not only advanced degrees but also real-world experience and industry connections to enrich your educational journey.

As a graduate, you will be prepared for a variety of roles, including petroleum engineering technologists and other careers within the oil and gas industry. You'll confidently enter the workforce, knowing that our diploma is recognized and valued across the industry.

Traits, skills and aptitudes

Petroleum engineering technologists tend to be objective, innovative and directive.

You need:

- an aptitude for math, chemistry and physics
- organizational, interpersonal and communication skills
- the ability to work alone or with a team.

You should be comfortable analyzing data. You should like working with tools and instruments at precision tasks. You should enjoy creative problem-solving and be at ease taking charge.

Practicum, Co-op and Work Integrated Learning

In your final semester, you'll complete a capstone project in partnership with an industry mentor and overseen by an instructor. This project will involve a real-world example of the type of work you'll perform once you enter the workforce.

Accreditations, designations and certifications

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

This program is nationally accredited by the Technology Accreditation Canada (TAC) at the technologist level.

Credentials

After successfully completing this program, you'll receive a SAIT Petroleum 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 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 Chemistry 30, 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 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	2	$5,580	$1,764.50	$7,344.50
2	2	$5,580	$1,764.50	$7,344.50
			Total cost:	**$14,689**

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	2	$19,770	$1,764.50	$21,534.50
2	2	$19,770	$1,764.50	$21,534.50
			Total cost:	**$43,069**

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 $1,500 per full-time 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

You'll require a scientific calculator capable of performing linear regression.

Required personal protective equipment (PPE)

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