Bachelor of Applied Technology Petroleum Engineering

MACPHAIL SCHOOL OF ENERGY

Overview

The Bachelor of Applied Technology in Petroleum Engineering is for individuals with an existing technical degree or diploma who want to rise to the next level in the petroleum industry.

This program is an essential stepping stone to a fulfilling career within the upstream petroleum sector, including gas process engineering and facilities design.

You will explore the core segments of the petroleum industry and gain a thorough grounding in:

- oil and gas exploration, including the techniques and challenges involved in discovering new petroleum reservoirs
- drilling engineering, acquiring skills in drilling mechanics and operations, understanding the complexities of building wells
- the behaviour of oil and gas reservoirs and how to maximize resource extraction
- the phases of production, from wellbore to surface operations, ensuring efficiency and sustainability
- oil and gas facilities design and operation, engaging in the design, build and operation of facilities with an emphasis on safety and environmental considerations
- upgrading and refining operations, including the processes involved in converting crude oil into usable products, enhancing product value
- the tools for cost estimation, risk assessment and financial forecasting essential in the petroleum industry.

Customized learning pathways

Acknowledging that each student's interests and career goals are unique, our Bachelor of Applied Technology in Petroleum Engineering offers the flexibility to tailor your educational journey. You can select from various courses that align with your career goals.

As a graduate, you will be well-equipped to leverage your degree and prior technical background to tackle the challenges of the petroleum industry in Alberta and elsewhere.

You will be prepared for roles that demand strong technical and analytical skills. Whether you're aiming for technical leadership or innovation in engineering practices, this program is your launchpad into the diverse and dynamic field of petroleum engineering.

Traits, skills and aptitudes

Those in the petroleum engineering field 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 and with a team.

You should be comfortable analyzing data, creative problem-solving, working with tools and instruments to perform your work with precision, and be at ease taking charge.

Practicum, Co-op and Work Integrated Learning

You'll participate in two practicums and present a final report on your work.

During your practicums, you'll gain at least 750 hours of work experience in a paid or unpaid position in the petroleum industry. Your final report will be a major technical report based on the experience and data gathered on the job.

For each practicum, there is a minimum number of work hours that must be completed over a maximum of 15 weeks:

- PRAC 400 - minimum 400 hours over a maximum period of 15 weeks

- PRAC 410 - minimum 350 hours over a maximum period of 15 weeks

You can work more than the minimum number of hours during the 15-week practicum work period.

You will be responsible for finding your work position, but SAIT advisors will assist you as much as possible.

Accreditations, designations and certifications

Graduates of this program may be considered for accreditation with the Association of Professional Engineers and Geoscientists of Alberta (APEGA), provided you meet the established criteria and are successful in the assessment process.

Credentials

After successfully completing this program, you'll receive a SAIT Bachelor of Applied Technology Petroleum Engineering degree.

Admission requirements

Applicants educated in Canada

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

- a two-year SAIT diploma with a grade point average of 2.5 or better in:
  - Petroleum Engineering Technology
  - Chemical Engineering Technology
  - Mechanical Engineering Technology
  - Instrumentation Engineering Technology
  - Civil Engineering Technology
  - Electrical Engineering Technology
  - or similar engineering technology program, or
- a relevant science (mathematics, physics, chemistry, geology, or geophysics) or engineering degree. Additional courses may be required before starting the program.

Applicants with other qualifications may be considered upon submission of certified background information.

Registration in a Canadian Professional Engineering or a Certified Technologist organization can be substituted for the WES or SAIT assessments, subject to academic chair approval.

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.

The second year of this program is dedicated to a practicum placement where you will earn 30.0 credits towards your degree. Only billable hours amounting to 5.7 credits are used to calculate the tuition rate for this year.

Domestic Students

Year Year	Number of semesters Number of semesters	Tuition fees Tuition fees	Additional fees Additional fees	Total per year Total per year
1	2	$7,533	$1,764.50	$9,297.50
2	2	$2,008.80	$1,764.50	$3,773.30
			Total cost:	**$13,070.80**

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	$24,786	$1,764.50	$26,550.50
2	2	$6,609.60	$1,764.50	$8,374.10
			Total cost:	**$34,924.60**

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 - $1,500 per full-time year.

This is a bring-your-own-device program with standard computer hardware and software requirements. 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.

Personal protective equipment (PPE)

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