







# Who are ENGINEERS?

The answers might surprise you.

Engineering is not just for people who excel at math and science.

You'll find students who are interested in sustainability, the arts, entrepreneurship, social justice, agriculture, medicine and more!

There's a place for you in engineering.

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A first-year engineering program that's built to help you succeed.

We've redesigned the first-year engineering timetable to help you thrive in both your studies and in your university experience.

First-year classes are shorter, modular and strategically sequenced so you can take what you've learned in one class and apply it in another.

You'll be assessed on your competency and skills, with opportunities to show understanding and, in some cases, have chances for 'do-overs'.

You'll be placed in a Study Squad with other first-year students so you can work on assignments and projects together – a proven way to learn.

Course content is broader and more relevant to real-world engineering.

By the end of your first year, you will be better prepared for upper-year classes and ultimately your engineering career.



ACADEMIC SUPPORTS



BALANCED SCHEDULE



CHANCES TO TRY AGAIN



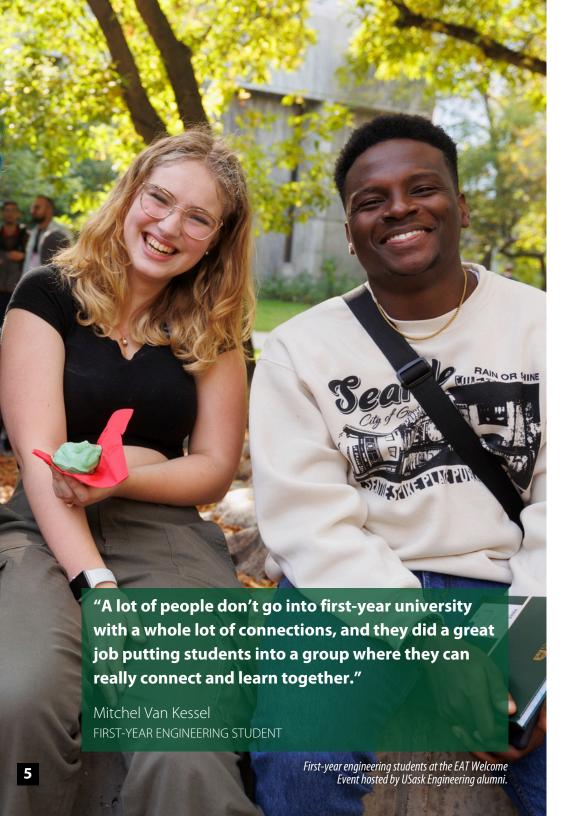
HANDS-ON LEARNING



COMMON BREAKS



MODULAR COURSES



## **Supports**

#### **Engineering jumpstarts**

Online resources and automated assessments, known as Engineering Jumpstarts, are here to support you in reviewing key high school material needed for your first-year engineering classes, helping you get off to a strong and successful start!

#### **Block registration**

Instead of choosing individual courses, you will register for one block of classes that contains a schedule with all your classes and labs. There are about 50 students per block and you will have all your courses together.

#### **Study Squads**

Get instant friends and study partners from day one with Study Squads! You will be placed in a squad to do certain assignments together, giving you a ready-made group for doing homework and making connections.

#### **Help sessions**

Structured study sessions run every Monday to Friday, where you can get help with multiple classes. They also provide a dedicated time in your schedule to study and complete assignments.



### Flex

Balancing family, work, sports and studies can be challenging. RE-ENGINEERED Flex is designed to help you thrive both academically and personally.

#### **Smooth transition**

Spread first-year courses over two years to help you transition into engineering.

#### **Full-time status**

Maintain full-time student status while reducing your course load.

#### Improved time management

Ease into your studies with a manageable pace, reducing the pressure of a heavy course load.

#### **Increased flexibility**

Accommodate family, work, sports and other commitments without compromising your academic goals.







### Classes

Refocused so you can master the skills you need

#### **Strong transition to engineering**

Through programs to prepare you, like Engineering Jumpstarts, to classes that show the diversity of the profession and careers, you'll be supported along your journey from student to future USask engineer.

#### **Broader exposure to natural sciences**

Experience a strong introduction to the natural sciences in the fall term through short courses in chemistry, biology, physics and geology, instead of just one natural science elective.

#### Holistic approach to the engineering profession

Your first-year classes include content that highlights the connection between entrepreneurship and design, along with a focus on Indigenous cultural context to integrate into the curriculum.

#### **Greater employability after first-year**

You will boost your employability after first year with proficiency in computer programming languages, along with training in basic workplace safety and an understanding of an engineer's health and safety obligations.



### **Assessment**

Refocused so you can master the skills you need

#### **Graded on specific skills**

Your grades will reflect your competency and skills, not how well you can memorize large amounts of material.

#### Chances to try again

You will have opportunities to improve your grades during our Fall and Winter Top Ups. Our goal is to ensure you feel confident in the skills you'll need during your degree and your engineering career.

#### No penalty for early mistakes

We care about your learning and we want you to improve. If you get a better grade on your second or third try - that's the grade that will count!

#### **Evaluation throughout the semester**

You will be tested on modules of content throughout your courses using competency-based assessment, ensuring continuous evaluation rather than one high-stakes exam.

# Even more HANDS-ON LEARNING

Practical experience in our labs and beyond is a key part of your USask Engineering degree.

## Discipline experience course

Not sure what Engineering major to choose? Don't worry - you will spend a week learning about the different disciplines you can take at USask Engineering. Get hands-on experience in the labs, talk to engineers who work in the field and really get to know each discipline before you pick!

#### **Co-op internship**

Get real-world experience before you graduate! Expand your skills beyond the classroom and build your resume.

#### **Virtual reality**

Design and test bridges and trusses in our first-year virtual reality lab. No worries if your bridge collapses; you can try again in seconds!

#### **Small class sizes**

In depth experiences in our labs, more time with your professors and one-on-one help from our teaching assistants - it's all possible at USask Engineering.

#### **Bridge course**

Transition from first-year engineering to your second year with our Discipline Bridge Course and elective! Instead of writing final exams in the spring of your first year, engineering students do hands-on work in their chosen discipline, such as learning how to survey, build rockets or write code.



## Discover your ENGINEERING PATH

Make an informed choice: Experience the majors before you choose

#### **Explore your interests**

- Term One: Introduction to all eight engineering disciplines.
- Discipline Experience Week: Choose five disciplines to explore in detail, giving you the opportunity to compare and contrast and learn about the variety of work that engineers do.

#### **Choosing your major**

- Middle of Term Two: Select your major.
- Discipline Bridge Course and elective: Prepares you for your second year and builds excitement for your chosen field.
- Hard Hat Ceremony: Welcome to your discipline at the start of your second year.

## Bachelor of Science in Engineering: Eight majors

You can specialize your major with degree options and focus areas. Dual degree options are also available.

**Chemical Engineering** 

**Civil Engineering** 

**Computer Engineering** 

**Electrical Engineering** 

**Engineering Physics** 

**Environmental Engineering** 

**Geological Engineering** 

**Mechanical Engineering** 









### **CIVIL ENGINEERING**

Civil engineers design, construct and maintain structures like roads, highways, bridges and airports. They help create safe and sustainable small and large-scale water resource projects such as dams, canals and pipelines. These are just a few examples of the impact civil engineers have on the world around us.

#### **Your impact**

- Design physical structures such as hospitals, mine sites and sports and concert arenas
- Develop safe transportation systems including roads, highways, railways and bridges
- Protect people and nature through the building of reservoirs, dams, canals and land reclamation systems

#### **Co-op employers**

- Ministry of Highways
- City of Saskatoon
- Catterall & Wright

#### **Potential careers**

- Project Manager
- Structural Engineer
- Transportation Engineer

### **CHEMICAL ENGINEERING**

Chemical engineers, sometimes known as process engineers, design, implement and improve technology to make our lives more comfortable and safe, while minimizing the effect that we have on the environment. They take raw materials, living cells, chemicals, microorganisms or other energy sources to create useful products. This is just a glimpse into the work of chemical engineers.

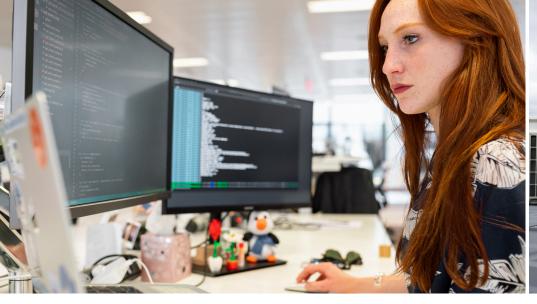
#### **Your impact**

- Develop new materials to make items like cosmetics, pharmaceuticals or animal feed
- Devise technologies to extract and refine metals and minerals
- Solve environmental and pollution problems by designing clean energy systems

#### **Co-op employers**

- Nutrien
- Orano
- Saskatchewan Research Council

- Process Engineer
- Petroleum Engineer
- Quality Control Engineer





### **COMPUTER ENGINEERING**

Computer engineering is the design, development and integration of computer programs and technology into devices and systems that improve how we interact with our world. Graduates design smart devices such as cellular phones, medical imaging technology, monitoring devices and much more.

#### Your impact

- Create high-tech products like cell phones or security systems
- Develop satellite-based communication systems, wireless networks and devices that comprise the internet
- Design robotic equipment to automate agriculture, healthcare, mining, energy, transportation and more

#### **Co-op employers**

- Calian Advanced Technologies
- Nutrien
- Canadian Light Source

#### **Potential careers**

- Software Engineer
- Hardware Design Engineer
- Network Engineer

### **ELECTRICAL ENGINEERING**

Electrical engineering is the design and management of power systems, communication networks and the electronic products that are transforming our way of life. Electrical engineers design systems and networks that will deliver services such as internet, text, voice and video information around the globe. These examples show just a portion of the impact of electrical engineers.

#### **Your impact**

- Design powertrain technology and control systems for vehicles
- Build instruments to be used in agriculture, medicine, manufacturing and more
- Develop green energy technologies such as solar panels

#### **Co-op employers**

- Nutrien
- SaskPower
- Vecima Networks

- Power Systems Engineer
- Electrical Design Engineer
- Renewable Energy Engineer





### **ENGINEERING PHYSICS**

Engineering physics is a bridge between pure and applied science. This program enriches you with analytical skills in mathematics and scientific reasoning, as well as technical skills in the design, construction and operation of systems including nanotechnology, space instrumentation, particle accelerators and more.

#### **Your impact**

- Develop modern sensors for satellites
- Design and test advanced medical imaging and radiation detection equipment
- Create electromagnetic systems, technologies, MRIs and much more

#### **Co-op employers**

- Calian Advanced Technologies
- Canadian Nuclear Laboratories
- SaskPower

#### **Potential careers**

- Nuclear Engineer
- Research Engineer
- Materials Scientist

## ENVIRONMENTAL ENGINEERING

Environmental engineering applies science and engineering to protect public health and the environment. It's a diverse career path, with areas of focus including water treatment, pollution control, land protection, hazardous waste management, recycling, energy recovery and much more.

#### **Your impact**

- Develop waste management and land reclamation methods
- Ensure we leave our world and natural surroundings as we found them before a project begins like reclaiming mining sites
- Design and improve systems that protect our food sources, animals and the environment

#### **Co-op employers**

- Nutrien
- City of Saskatoon
- PINTER & Associates Ltd.

- Water Resources Manager
- Environmental Consultant
- Wastewater Engineer





### **GEOLOGICAL ENGINEERING**

Geological engineering connects the worlds of nature and engineering. It applies engineering principles to the natural materials and fluids found in the earth. Geological engineers work to find and develop the resources that society needs and discover how to sustainably manage our resources.

#### **Your impact**

- Keep communities safe by analyzing the stability of the land and earth in places we live, work and play
- Design safe and sustainable extraction of the earth's resources
- Leverage nature and its natural properties to build systems to improve our world

#### **Co-op employers**

- Nutrien
- Teck Resources
- Hatch

#### **Potential careers**

- Mining Engineer
- Geological Engineer
- Geotechnical Engineer

### **MECHANICAL ENGINEERING**

Mechanical engineers design, develop, build and test a wide range of complex systems and devices. This includes everything from powerful engines and efficient power systems to advanced medical devices and robust mining equipment. Essentially, if it moves, a mechanical engineer was likely involved.

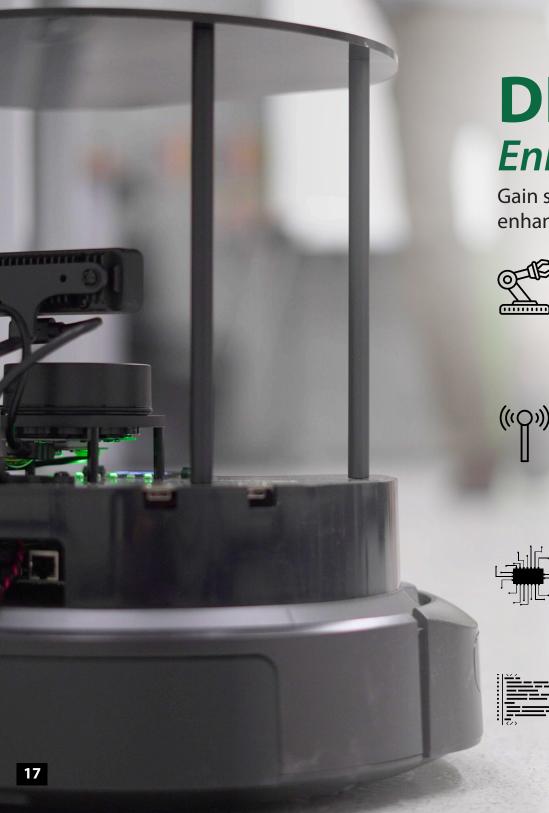
#### Your impact

- Design and manufacture vehicles, from automobiles, agricultural equipment to spacecraft
- Build advanced renewable energy systems like wind turbines and solar collectors
- Help people by designing biomedical devices such as artificial joints, tissue and bones

#### **Co-op employers**

- Nutrien
- Canadian Natural Resources
- Graham

- Manufacturing Engineer
- Automotive Engineer
- Mechanical Engineer



## **DEGREE OPTIONS**

### Enhance and customize

Gain specialized skills, stand out in your field and enhance your career prospects.



#### **Autonomous mobile robotics**

Discover how to design, program and control autonomous mobile robots, learning skills like robot operating systems, sensors, control algorithms and more.

Available for students in Electrical Engineering (B.E.)



#### Digital signal processing and applications

Explore the incredible technology enabling global communication, from making phone calls and capturing photos, to connecting people worldwide using advanced satellite systems.

Available for students in Computer Engineering (B.E.) and Electrical Engineering (B.E.)



#### Sensors, circuits and devices

Study the design, analysis and implementation of components that detect, process and transmit signals crucial for various applications from consumer electronics to biomedical devices.

Available for students in Electrical Engineering (B.E.)



#### **Software**

Learn about the design, development and implementation of programs and algorithms that enable hardware systems to function, ranging from operating systems to apps and more.

Available for students in Computer Engineering (B.E.)



#### **Bioprocessing**

Explore cutting-edge techniques to harness biological systems for sustainable production and innovation in healthcare, agriculture and beyond.

Available for students in Chemical Engineering (B.E.)



#### Mineral processing

Discover how to extract valuable minerals from ores using diverse chemical processes. This global industry is essential for manufacturing cars, electronics and everyday products.

Available for students in Chemical Engineering (B.E.)



#### **Mining**

Gain essential knowledge in mining operations including process engineering, mine design, excavation techniques and understanding mineral deposits.

Available for students in Geological Engineering (B.E.) and Mechanical Engineering (B.E.)



#### **Petroleum**

Immerse yourself in specialized courses in petroleum engineering, oil and gas engineering and bitumen upgrading to master vital skills for the energy industry's future.

Available for students in Chemical Engineering (B.E.)



#### **Power and energy**

Discover how systems and technologies generate, transmit, distribute and utilize electrical energy efficiently and sustainably, shaping a greener future.

Available for students in Electrical Engineering (B.E.)







## **DUAL DEGREES**Can't decide on just one?

Accelerate your career with a dual degree. Earn two degrees in just five years and gain a competitive edge with expertise in multiple fields.

Computer Engineering and Computer Science

Degrees: B.E. and B.Sc.

Master both hardware and software to excel in tech careers.

**Electrical Engineering and Computer Science** 

Degrees: B.E. and B.Sc.

Merge electrical systems with computing for innovative solutions.

**Engineering Physics and Computer Science** 

Degrees: B.E. and B.Sc.

Blend physics with computing to push the boundaries of science and technology.

## **CERTIFICATES**Stand out to employers

Be more marketable to future employers. Earn certificates to complement your engineering degree.

#### **Specialized certificates in communication**

Enhance your communication skills with our focused certificates, designed to give you a competitive edge and set you apart:

- Leadership and Negotiation (9 credit units)
- Persuasive Communication (9 credit units)
- Technical and Professional Writing (9 credit units)

#### Specialized certificates in technological innovation

Transform your expertise in technological innovation with our targeted certificates, equipping you with the skills to lead and innovate:

- Technical Innovation (26 credit units)
- New Product Marketing (13 credit units)
- Leading Innovative Teams (13 credit units)





## YOUR FUTURE in engineering

Engineers are in demand, working to make our world a better place.

#### **Careers in Saskatchewan**

Job prospects are rated "very good" for engineers of all majors.\* In fact, 22 of the 30 goals in Saskatchewan's growth plan require engineers.

#### **Above-average salaries**

In Saskatchewan, the average engineering salary in 2024 was \$138,789.\*\* The highest-paying discipline in Saskatchewan is geological/mining/ petroleum engineering with an average wage of \$140,390.

#### In demand career path

The Government of Canada's trend analysis on jobs predicts a continued shortage of computer engineers, electrical engineers, and civil engineers through 2031.\*\*\*

\* Sources: Government of Saskatchewan Job Outlook and Government of Canada Canadian Occupational Projection System \*\* Source: 2025 Salary Survey: Association of Professional Engineers and Geoscientists of Saskatchewan

## CO-OP **INTERNSHIP** Kickstart your career

Gain experience through our co-op internship program.

#### **Career boost**

Develop a professional network, hone your engineering skills and gain up to 20 months of paid engineering-focused work experience.

#### **Comprehensive support**

Receive guidance from co-op program staff, industry mentors and a workplace supervisor throughout your work term placement.

#### **Real-world experience**

Enhance your degree with full-time, paid work placements, gaining realworld experience and boosting your career prospects.

#### Flexible work terms

Enjoy flexible internship options ranging from summer placements to 16-month terms, starting in January, May or September.







## 2025 co-op stats

**48%** of graduates completed a work term during their degree

**500+ JOBS** posted; many employers hire for multiple positions

\$4,853 average monthly salary

**74%** of the placements are in Saskatchewan



## TĀWAW! WELCOME! Student supports

We are dedicated to creating a vibrant and supportive environment where every student can thrive. Here's how we ensure a balanced and enriching university experience:

#### **Academic supports**

Our Engineering Academic Advisors are here to support your educational journey, ensuring you're on track to meet your goals and manage your academic workload effectively.

#### **Cultural supports**

- Receive holistic guidance from our Elder in Residence, who supports your overall well-being and personal growth through cultural and non-academic guidance.
- The college's Indigenous Resource Centre serves as a smudging and gathering area where all students can connect, study, relax and share meals in a supportive and inclusive environment.
- USask's International Student and Study Abroad Centre (ISSAC) offers a
  variety of supports for international students and is dedicated to fostering a
  welcoming, globally aware and inclusive campus community.

#### **Mental health supports**

We offer dedicated mental health and counselling support just for engineering students.

STUDENT ADVISING



INTERNATIONAL STUDENTS



MENTAL HEALTH
SUPPORTS















## STUDENT GROUPS Build community

Our strong community offers countless opportunities for you to get involved and grow. Develop leadership and team-building skills while creating lifelong friendships.

USask Engineering has over 20 teams, student groups and associations you can join! Some of our groups are:

- Women and Allies in Engineering
- Huskie Formula Racing (FSAE)
- Steel Bridge Design Team
- USask Sled Dogs 1/4 Scale Tractor Team
- USask Space Design Team (USST)
- USask Aero Design Team
- Engineers Without Borders
- USask Chapter of the American Indian Science and Engineering Society (AISES)
- EngiQueers
- Saskatoon Engineering Students' Society





#### **PROSPECTIVE STUDENT AWARDS**

## Entrance Scholarships \$5,000

Apply for admission to be considered automatically

#### Best and Brightest Up to \$40,000

Apply for admission by December 1 Apply for awards by December 15

#### **Competitive Entrance Awards** \$500 - \$40,000

Apply for admission by February 15 Apply for awards by March 1





## TUITION AND FEES

The average cost of undergraduate engineering tuition and fees in 2025-26 is \$12,567 for domestic students.

Your student fees cover services that support you as a USask Engineering student, including:



#### Health and dental insurance

A comprehensive package of health, dental, vision and travel benefits to fill the gaps left by provincial medicare and a parent or spouse's plan.



#### Athletics and recreation

Use of athletic facilities on campus and free passes to all Huskie Athletics games.



#### **U-PASS**

City of Saskatoon bus passes for students.



#### Student wellness and services

Supports valuable student services such as: Student Wellness Centre, Student Affairs and Outreach and Access and Equity Services.

**TUITION AND FEES** 





## **APPLY**

#### Required high school classes and averages

- Chemistry
- Physics
- Pre-Calculus Mathematics

Note: a minimum grade of 70% is required in each of these courses

#### **Pathways to Engineering**

The Indigenous Student Achievement Pathways (ISAP) in the College of Arts and Science offers courses to help meet USask Engineering admission requirements.

#### Required academic average

**Target admission average: 80%** 

Once you've applied for admission and submitted all required documents, we calculate your admission average using the grades on your high school transcript. The five-mark formula includes:

- One English
- One math
- Three other approved subjects, with:
  - A maximum of two natural sciences
  - A maximum of two social sciences or humanities
  - A maximum of one fine or performing art

#### **Application deadline**

Admission to USask Engineering is competitive and based on a ranked system.

#### **EARLY ADMISSION DEADLINE**

December 1, 2025

Early admission is offered to applicants with an average of 90% or higher.

#### **REGULAR ADMISSION DEADLINE**

February 15, 2026

Target admission average is 80%.



## RESIDENCE

#### **College Quarter**

Live in a vibrant, inclusive community at College Quarter with modern, fully furnished units and convenient campus access.



Modern apartment-style units (2, 3 or 4-bedrooms)



Five-minute walk from your classes and student services

Queer Housing program available

#### **Voyageur Place**

Located at the heart of campus, Voyageur Place offers traditional dormitory-style units that are connected to campus through tunnels and skywalks, making it popular with first-year students.



Traditional dormitory-style units (single or double rooms)



Unlimited dining meal plan at the Marquis Culinary Centre



Located at the heart of campus and connected by tunnels







# Study engineering in SASKATOON

Welcome to Saskatoon! Our vibrant city along the South Saskatchewan River offers a friendly community, rich culture and endless adventures. From scenic trails to a lively arts scene, Saskatoon has it all.

#### **Historic and Beautiful Campus**

Experience the charm of our historic campus with its stunning architecture and beautiful green spaces.

#### **Vibrant Community and Culture**

Saskatoon offers a welcoming and friendly community with a rich cultural scene, including festivals, music and arts.

#### **Blend of Urban and Natural**

Enjoy the best of both worlds with urban amenities and natural beauty, including scenic riverbank trails and parks for outdoor activities.

The University of Saskatchewan's main campus is located on Treaty 6 Territory and the Homeland of the Métis. We pay our respect to the First Nations and Métis ancestors of this place and reaffirm our relationship with one another.

## **ENGINEERS THE** WORLD admissions.usask.ca engineering.usask.ca → @usask\_engineering f @usaskengineering email: engineer.recruit@usask.ça



