



No two students take the same journey.

Where will yours begin?

About your first-year experience

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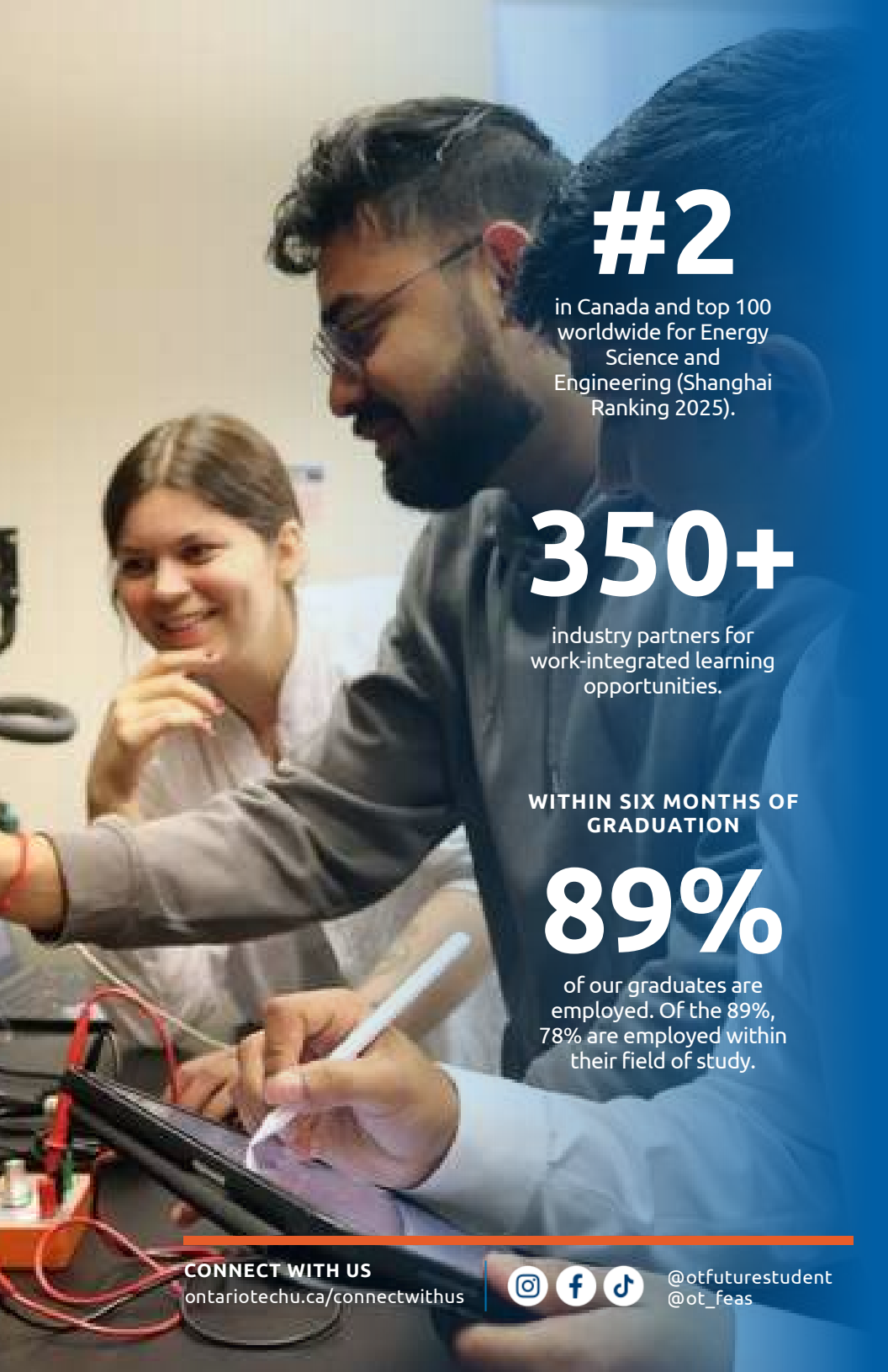
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A man with glasses and a beard, wearing a grey shirt, is pointing at a laptop screen. A woman with long dark hair, wearing a white shirt, is smiling and looking at the screen. They are in a lab setting with various electronic components and wires visible on the table.

#2

in Canada and top 100
worldwide for Energy
Science and
Engineering (Shanghai
Ranking 2025).

350+

industry partners for
work-integrated learning
opportunities.

**WITHIN SIX MONTHS OF
GRADUATION**

89%

of our graduates are
employed. Of the 89%,
78% are employed within
their field of study.

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What to expect as a first-year engineering student?

The Faculty of Engineering and Applied Science offers hands-on, innovative, and high-quality education promoting innovation and growth.

▶ FOUNDATION YEAR

All of our engineering students begin with a foundation year, regardless of your program of study. This core first year provides a solid grounding in basic sciences, mathematics and computing and how they integrate to different industries and applications.

▶ FIRST-YEAR ENGINEERING SUCCESS PROGRAM

ontariotechu.ca/engineeringsuccess

This program assists you with your transition to university-level engineering courses and any challenges you may have while adjusting to life at university.



▶ GUARANTEED FIRST-YEAR RESIDENCE*

ontariotechuresidence.ca

Our student housing is steps away from campus and provides all the amenities you need at your fingertips. You will also have plenty of opportunities to get involved in many of our on-campus events and activities.

▶ GIVING ENGINEERING ACADEMIC RESOURCES TO STUDENTS (GEARS)

ontariotechuresidence.ca/gears-community

GEARS is an organized community inside our campus residences for engineering students to live surrounded by their engineering peers. The GEARS community is a residential setting designed to enhance student retention and foster academic success, creating a positive university experience.



*Must apply for residence before the June deadline

Clubs, societies and design teams

engineering.ontariotechu.ca/clubsandsocieties

We offer a variety of student-run clubs to connect with like-minded individuals over shared interests. Join a design team to bring engineering ideas from the lecture hall to the real world.

- Ontario Tech ASME
- Engineering Outreach
- Engineers Without Borders
- Ontario Tech Engineering Students' Society
- Ontario Tech Racing Team
- Ontario Tech Space and Rocketry Team
- Ontario Tech IEEE
- National Society of Black Engineers
- North American Young Generation in Nuclear
- Robot in 3 Days and ARC
- Sustainable Energy Association
- Women in Engineering



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Select Industry Partners

- Aecon
- Alstom
- AtkinsRéalis
- Bombardier Aerospace
- Bruce Power
- BWXT Canada
- Cameco
- Canadian Nuclear Laboratories
- Celestica
- Collins Aerospace
- E.S. Fox Limited
- Elexicon Energy
- FGF Brands
- General Motors
- Gerdau
- Honda
- Hydro One
- IBM
- Kinectrics
- Linamar
- Litens Automotive Group
- Magna
- Multimatic
- Ontario Power Generation
- PepsiCo
- Safran Landing Systems
- Siemens
- TD Canada Trust
- Tesla
- ThermoFisher
- Toronto Hydro
- Uber
- Volkswagen

Preparing you for your career

engineering.ontariotechu.ca/co-op

All of our undergraduate Engineering programs include co-operative (co-op) education opportunities, providing experiential learning that integrates academic studies with paid work experiences.

➤ WHY CO-OP?

Co-op opportunities allow you to develop tangible skills, gain valuable work experience and generate income while pursuing your undergraduate degree. You will have the chance to apply academic concepts to solving real-world problems!

➤ WHAT IS THE CO-OP DESIGNATION?

Students in the co-op stream who successfully complete a minimum of three 4-month work terms will graduate with the co-op designation on their degree parchment. Typically this extends the program of study by one year.



“This year taught me far more than technical skills. I learned how to lead people, make decisions under pressure, have crucial conversations, communicate across an entire manufacturing operation, and adapt when things don’t go to plan.”

Alexander Callahan
Mechanical Engineering
12-months, General Motors
of Canada

THERE ARE **TWO** OPTIONS FOR CO-OP ADMISSION:

- 1. Select the direct-entry co-op option on your Ontario Universities' Application Centre (OUAC) application.
- 2. Apply for co-op after completing your first-year of study.

All students are required to complete their first-year of study with a minimum cumulative GPA of 2.3 to remain in or be admitted into the program.

International students must be legally entitled to work in Canada.



400+
students participate each year



1,300+
co-op jobs posted annually on the career portal



200+
employers with more added every year



4-16
month long paid work terms are available





Our programs

Our programs are designed to provide you with the opportunities to develop lifelong learning skills and gain hands-on engineering design experience.

UNDERGRADUATE PROGRAMS

ontariotechu.ca/programs

► Bachelor of Engineering (Honours)

- **Artificial Intelligence Engineering***
- **Automotive Engineering**
- **Automotive Engineering** – Railway Engineering specialization
- **Electrical Engineering**
- **Electrical Engineering** – Smart Grid specialization
- **Energy Engineering**
- **Industrial Engineering**
- **Manufacturing Engineering**
- **Manufacturing Engineering** – Railway Engineering specialization
- **Mechanical Engineering**
- **Mechanical Engineering** – Aerospace specialization
- **Mechanical Engineering** – Artificial Intelligence specialization
- **Mechanical Engineering** – Railway Engineering specialization
- **Mechatronics Engineering**
- **Mechatronics Engineering** – Artificial Intelligence specialization
- **Mechatronics Engineering** – Railway Engineering specialization
- **Nuclear Engineering**
- **Software Engineering**
- **Software Engineering** – Railway Engineering specialization
- **Software Engineering** – Internet of Things specialization

Coming soon: Civil Engineering

Bachelor of Engineering and Management (Honours)

Offered in combination with **all** of our Engineering programs.

Our Bachelor of Engineering and Management (Honours) program provides you with the skills to succeed in leadership and managerial roles to meet the rapidly increasing need for these roles in the industry. In these programs, you will take two semesters of business and management courses for 30-credit hours after your third year.

*Pending ministry approval

Comprehensive Engineering

Decide what program to study **after** your first year of studies.

Not sure what program to take? We offer a comprehensive option, intended for those who are undecided on which engineering program they want to take.

Prior to year two, you are required to apply to change to one of our engineering programs.

Changing programs is competitive; admission is not guaranteed to your program of choice and you may be placed in another engineering program if you do not meet the requirements.



GRADUATE PROGRAMS

ontariotechu.ca/gradprograms

▶ Master's program

Master's of Engineering (MEng)* or
Master's of Applied Science (MASc)

- **Automotive Engineering**
- **Electrical and Computer Engineering**
- **Engineering Management****
- **Mechanical Engineering**
- **Mechatronics Engineering**
- **Nuclear Engineering**
- **Software Engineering**

*MEng degree is course-based

**Only course-based MEngM offered

▶ Doctoral program

- **Electrical and Computer Engineering**
- **Mechanical Engineering**
- **Nuclear Engineering**

▶ Graduate diploma

- **Engineering Management**
- **Nuclear Design Engineering**
- **Nuclear Technology**
- **Railway Engineering**



Artificial Intelligence Engineering*

Hands-on AI engineering skills grounded in **ethics**, innovation and real-world experience.

Learn the ethical implications of the use of AI in engineering and society. Gain the skills to design, build, and apply machine learning and artificial intelligence across industries.

▶ What will I study?

- Computer vision and robotics
- Agent-based systems
- Natural language processing
- Foundation models and generative AI
- Deep learning architecture and algorithms
- Autonomous and connected systems
- AI engineering and machine learning operations

▶ What can I be with my degree?

- AI Ethics Specialist
- AI Research Scientist
- Data Scientist
- Machine Learning Engineer
- Natural Language Processing Engineer
- Software Engineer
- Intelligent Control Systems Engineer
- Robotics Engineer

*Pending ministry approval



Automotive Engineering

Canada's only accredited **Automotive Engineering** program.

Our curriculum emphasizes the design and manufacturing of automobiles and their related components, including engines and their analysis and design, vehicle dynamics and autonomous vehicle technologies.

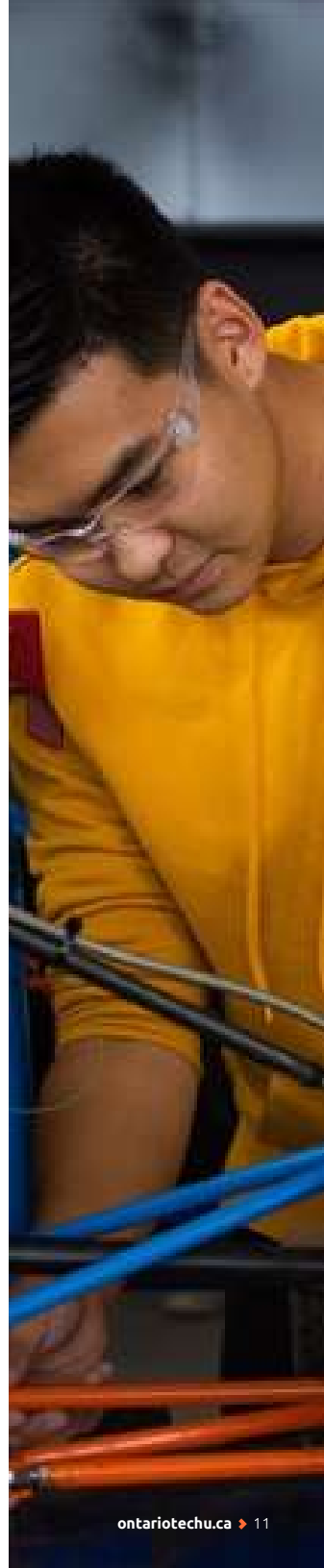
► What will I study?

- Automotive instrumentation and controls
- Automotive structural design
- Chassis system design
- Combustion and engines
- Electric and hybrid vehicles
- Machine design
- Powertrain design
- Vehicle dynamics and control

► What can I be with my degree?

- Automation Engineer
- Automotive Research and Development Specialist
- Component Design Engineer
- Control Systems Analyst
- Heavy Vehicle Specialist
- Systems Integration Engineer
- Vehicle Production Manager

Railway Engineering specialization





Electrical Engineering

Preparing grads for employment in the
Canadian electrical industry.

Electrical engineers are highly employable and can find work in many industries.

Our Electrical Engineering program teaches you to apply knowledge through analysis, design and implementation of electrical, power, control, electronic, biomedical, photonic and wireless systems.

◆ What will I study?

- Applications for electromagnetics
- Circuit analysis
- Digital signal processing theory and design
- Electric machines
- Electronic circuit design
- Microwave and radio frequency circuits
- Power systems
- Signals and systems
- Wireless communications

◆ What can I be with my degree?

- Algorithm Developer
- Communications Hardware Specialist
- Electronics Design Engineer
- Energy Distribution Analyst
- Grid Operations Specialist
- Medical Device Engineer
- Quality Assurance Engineer
- Signal Processing Engineer

Smart Grid specialization

Energy Engineering

Meeting growing energy demands with **innovative** technologies.

Energy Engineering graduates will be prepared to work across the energy sector and support the energy transition in Ontario, Canada, and globally.

This program is designed to help you design, manage, and analyze innovative energy systems and applications to meet growing demand while reducing impact on the environment.

► What will I study?

- Electro-mechanical energy conversion
- Energy and environmental impacts
- Fundamentals of smart grid
- Hydrogen and fuel cells
- Integrated energy systems
- Power systems
- Solar, wind and hydro energy
- Sustainable community energy systems

► What can I be with my degree?

- Energy Analyst
- Energy Asset Management Professional
- Energy Efficiency Consultant
- Energy Engineer
- Policy Analyst
- Renewable Energy Specialist
- Solar Panel System Designer





Industrial Engineering

Optimizing and **improving complex** engineering processes.

Industrial engineering is a discipline that integrates several branches of engineering education with the objective of optimizing and improving complex engineering processes, systems or organizations. The skill sets that Industrial Engineers acquire are versatile.

➤ What will I study?

- Artificial intelligence and machine learning
- Human-system integration
- Industrial cyber-physical systems
- Industrial data analytics
- Industrial internet of things
- Quality control
- Life cycle engineering

➤ What can I be with my degree?

- Construction Systems Engineer
- Healthcare Systems Engineer
- Industrial Systems Engineer
- Information Technology Systems Coordinator
- Operations Improvement Specialist
- Pharmaceutical Process Engineer
- Product Development Engineer
- Product Optimization Specialist
- Robotics Engineer
- Supply Chain Analyst



Manufacturing Engineering

Ontario's **only fully accredited**
Manufacturing Engineering program.

This unique program emphasizes the design, development, planning, selection, improvement and application of advanced manufacturing processes. You will learn about advances in materials and composites, robotics, automation and intelligent controls while considering the integration between tools, processes and equipment with cutting-edge manufacturing facilities and systems.

► What will I study?

- Computer-aided design
- Design for manufacturing
- Integrated manufacturing systems
- Kinematics and dynamics of machines
- Life-cycle engineering
- Manufacturing and production processes
- Robotics and automation

► What can I be with my degree?

- Advanced Manufacturing Engineer
- Facility Design Specialist
- Manufacturing Systems Engineer
- Materials Processing Engineer
- Operations Manager
- Product Development Engineer
- Systems Integration Engineer

Railway Engineering specialization





Mechanical Engineering

Gather **hands-on experience** and knowledge of systems.

This program focuses on the analysis and design of machines and how they work.

In this program, students will learn the principles of mechanical engineering—motion, energy and force—and how these principles are used to design and build the world around us.

◆ What will I study?

- Advanced solid mechanics and stress analysis
- Computer-aided design
- Design for manufacturing
- Fluid mechanics
- Kinematics and dynamics of machines
- Robotics and automation
- Thermo-mechanical processing of materials

◆ What can I be with my degree?

- Automation Integration Specialist
- Control Systems Engineer
- Energy Systems and Simulation Manager
- HVAC Engineer
- Materials and Manufacturing Systems Specialist
- Mechanical Design Engineer
- Power Generation Engineer
- Quality Assurance
- Research and Development Engineer

Aerospace, Artificial Intelligence, and Railway Engineering specializations

Mechatronics Engineering

Combining **Mechanical, Electrical and Software Engineering.**

This multidisciplinary program brings together mechanical, electrical and software engineering. You will gain an understanding of how the design of mechanical systems must work together with electronic and computer controls.

Examples of mechatronic systems include surgical robots, industrial automation systems, autonomous vehicles and drones.

► What will I study?

- Actuators and power electronics
- Electrical circuit design
- Fluid mechanics
- Industrial automation
- Real-time systems
- Machine vision for robotic systems
- Mechatronics design
- Robotics and automation
- Sensors and instrumentation

► What can I be with my degree?

- Automation Engineer
- Automation Solutions Designer
- Biomedical Device Developer
- Controls Engineer
- Electro-Mechanical Systems Engineer
- Embedded Systems Designer
- Real-Time Systems Engineer
- Robotics Engineer



Artificial Intelligence and Railway Engineering specializations



Nuclear Engineering

Canada's **first** and **only accredited** Nuclear Engineering program of its kind.

Our Nuclear Engineering program was designed to meet a worldwide need for graduates in the field of nuclear engineering for over 20 years.

Although the program's primary focus is nuclear power plant engineering, the curriculum is sufficiently broad-based so that you will be well qualified for careers in many applications of nuclear technology and energy-related fields.

◆ What will I study?

- Engineering design
- Environmental effects of radiation
- Interaction of radiation with matter
- Nuclear fuel cycles
- Nuclear power plant systems design
- Nuclear plant safety design
- Radiation protection
- Reactor control
- Thermodynamic cycles

◆ What can I be with my degree?

- Control and Instrumentation Engineer
- Energy Engineer
- Fuel Design and Manufacturing
- Nuclear Commissioning, Regulation and Standards Specialist
- Nuclear Energy Plant Design and Operations Consultant
- Nuclear Engineer or Scientist
- Nuclear Policy, Advocacy, Influencer



Software Engineering

Develop the systems, solutions and software that **shape** what comes next.

This program provides the required design and development expertise for developing robust software systems in a continually advancing sector.

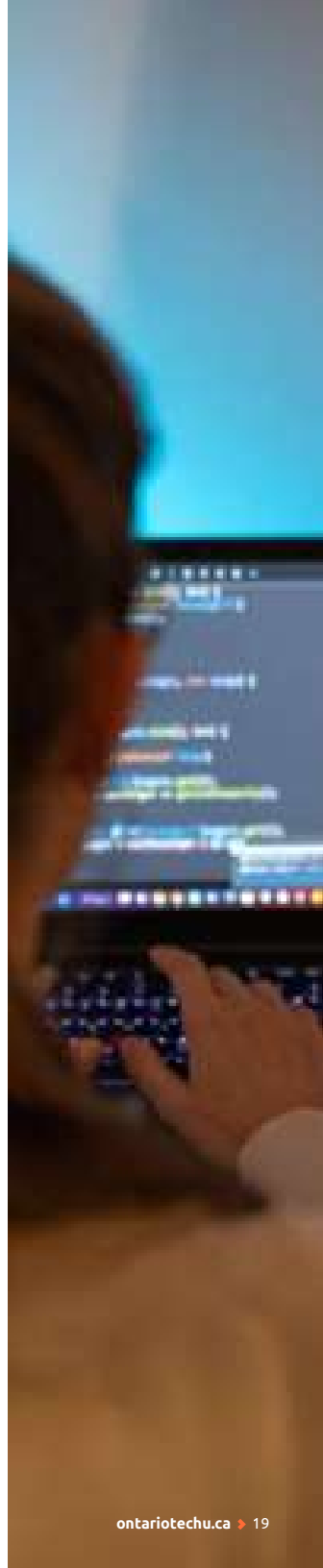
Modern software engineering encompasses the design and development of a wide range of applications and systems, from operating systems, games and mobile apps to specialized software that controls and supports vehicles, medical devices and aerospace systems.

► What will I study?

- Artificial intelligence
- AI engineering & machine learning operations
- Cloud computing
- Computer networks
- Embedded systems
- Software and computer security
- Software design and architecture
- Software quality and project management

► What can I do with my degree?

- Agile Software Developer
- Artificial Intelligence Specialist
- Cloud Systems Architect
- Enterprise Software Developer
- Graphics Software Engineer
- Mobile Applications Engineer
- Software Systems Engineer
- Software Project Manager
- Software Quality Engineer







TAILOR
YOUR PATH
TO SUCESS.

Admission requirements

ontariotechu.ca/admissions

Want course-specific information? Visit ontariotechu.ca/calendar.

PROGRAM	ONTARIO SECONDARY SCHOOL DIPLOMA (OSSD)	INTERNATIONAL BACCALAUREATE (IB)
Artificial Intelligence Engineering Automotive Engineering Comprehensive Engineering Electrical Engineering Energy Engineering Industrial Engineering Manufacturing Engineering Mechanical Engineering Mechatronics Engineering Nuclear Engineering Software Engineering	ENG4U, MHF4U, MCV4U, SCH4U and SPH4U	English, Chemistry, Physics and one of: Mathematics: Analysis and Approaches or Mathematics: Applications and Interpretation (HL)

Pre-Engineering

ontariotechu.ca/preeng

Are you interested in Engineering, but don't have all of the prerequisites for regular admission?

This one semester program offers a structured pathway with targeted courses to help you meet admission requirements. Upon successful completion of the program you will be able to transfer into an Engineering program of your choice, based on academic performance during the Pre-Engineering program.



Scholarships

ontariotechu.ca/scholarships

AWARDS OF RECOGNITION

If you are a current Canadian secondary school student, you are automatically awarded the following based on your top six final 4U/4M courses (or equivalent):

\$4,000	95 per cent or higher
\$2,000	90 to 94.5 per cent
\$1,000	85 to 89.9 per cent

IN-COURSE SCHOLARSHIPS*

We will continue to acknowledge your academic achievements during your undergraduate degree, based on your grades in the previous academic year:

\$1,500	4.0 GPA or higher
\$1,000	3.7 to 3.99 GPA

*Minimum GPA and course load required and you must be returning to full-time studies. Amounts vary based on GPA and donor contributions.

MAJOR ENTRANCE SCHOLARSHIPS

There are four Major Entrance Scholarships ranging from \$12,000 to \$36,000 that span over four years. Applications showing leadership and community involvement open in December and are due in February.

WOMEN FOR STEM SCHOLARSHIP PROGRAM

Twenty scholarships of \$5,000 each are automatically awarded to women with high averages entering STEM programs. This program includes mentorship, special events and a \$2,000 renewable opportunity for qualified students.





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