# DISCOVER ENGINEERING Viewbook 2025-2026



UNIVERSITY OF TORONTO FACULTY OF APPLIED SCIENCE & ENGINEERING

### #1

U of T ranks 1st in Canada and 12th in the world for the most employable grads\*

\* Times Higher Education, Global Employability University Ranking, 2023-24

### 100+

Engineering student clubs and teams to explore. Learn more about our vibrant student life: uofteng.ca/clubs-teams

### **150 YEARS**

In 2023, U of T Engineering celebrated 150 years of engineering innovation

### 100+

Countries our students call home

### 700+

Companies employ 1,000+ engineering co-op students each year

### 40%

For the past several years, U of T Engineering's first-year class has been near or above 40% women, among the highest proportions in Canada

### 31%

International students in first-year engineering studies

### 146

Cultures represented across 158 Toronto neighbourhoods. Learn more about Toronto: uofteng.ca/toronto

#### TRADITIONAL LAND ACKNOWLEDGEMENT

We wish to acknowledge this land on which the University of Toronto operates. For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

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# Future-proof your career at U of T Engineering

Every industry needs engineers, from health care to transportation to AI — not to mention future sectors that don't yet exist. Regardless of your chosen discipline, a U of T Engineering degree is in demand, recognized worldwide and can help future-proof your career. It's the perfect platform from which to launch into professional life upon graduation.

When you choose U of T Engineering, you are choosing an education that goes well beyond the classroom. A hallmark of the U of T Engineering experience is the ability to tailor your degree to meet your developing interests. This takes shape in many ways, including engineering minors and certificates, leadership programming, local and global research opportunities, study abroad opportunities, work-integrated learning through the PEY Co-op Program and so much more.

Being located in Toronto comes with incredible perks, too. Our neighbours include some of North America's leading startup incubators, world-class hospitals, diverse industries and Canada's financial hub. The city is also known for its vibrancy and cultural diversity, creating the ultimate place to explore and broaden your own horizons.

Whether you aspire to work in industry, start your own business or pursue further studies, a U of T Engineering degree will get you there with the right expertise, knowledge and experience. You'll also graduate with a solid network of peers and mentors, giving you everything you need to tackle any challenge the future may hold.

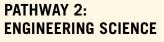
# 10 programs with 2 curricular pathways

We are proud to offer a wide range of programs to suit the diverse interests and needs of our students. There are two pathways to begin your journey at U of T Engineering.

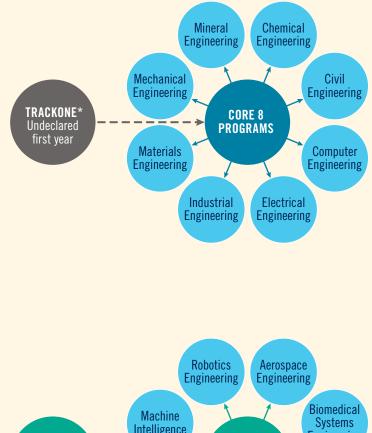
#### PATHWAY 1: CORE PROGRAMS

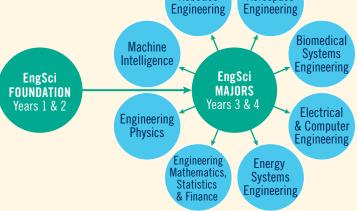
This cluster of programs includes eight traditional engineering disciplines, as well as a general first year called TrackOne. Upon graduation from a Core 8 program, students receive a Bachelor of Applied Science (BASc) degree. Read more about these programs from pages 4 to 11.

\* TrackOne is a first year program for students who wish to explore all engineering fields before joining a Core 8 program in second year.



In this unique program, students take two years of foundational courses before specializing in one of eight accelerated majors. Upon graduation, students receive a BASc in Engineering Science. Learn more on page 12.







### TrackOne, Undeclared Engineering

TrackOne is a first year program designed for students interested in exploring all fields of engineering before joining one of the Core 8 programs in second year. As a TrackOne student, you'll spend your first year taking a wide range of courses and becoming familiar with various disciplines — helping you forge relationships across engineering programs. This approach helps you discover your interests within U of T Engineering while developing a strong foundation in key engineering principles.

After successfully completing TrackOne, you will select the Core 8 program of your choice — Chemical, Civil, Computer, Electrical, Industrial, Materials, Mechanical or Mineral — for the remaining three years of your BASc degree.

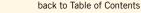
"I selected the TrackOne program to gain exposure to each engineering discipline and make an informed decision about which one would best align with my interests. The seminars and TrackOne advisor helped foster my passion for mechanical engineering."

 Samantha Butt recent mechanical engineering grad



TRACKONE

For more information scan or visit: uofteng.ca/trackone



## **Chemical Engineering**

Chemical engineers combine chemistry, biology, math and design to solve global challenges and create innovative processes and products. As one of the top chemical engineering programs in Canada, U of T Engineering is at the forefront of research to develop renewable fuels and energy sources, use biotechnology to clean up pollution, manufacture products sustainably, create artificial organs and fortify foods to address malnutrition. You'll put theory into practice in innovative courses and laboratories, including the unique Unit Operations Lab, filled with largescale industrial equipment and a two-storey distillation column.



For more information scan or visit: uofteng.ca/chemical

#### CORE 8

#### **AREAS OF FOCUS**

- Biomolecular & Biomedical Engineering
- Bioprocess Engineering
- Chemical Engineering
- Environmental Science
- Informatics
- Materials Development
  & Process Engineering
- Pulp & Paper
- Surface & Interface Engineering
- Sustainable Energy

#### SAMPLE PEY CO-OP EMPLOYERS

- Environment & Climate Change Canada
- Ontario Power Generation
- Peel Plastics Products Ltd.
- Qualcomm Canada Inc.
- Sanofi Canada

- Advanced manufacturing of biochemicals
- Bioprocessing
- Finance
- Food fortification
- Management consulting





# **Civil Engineering**

Civil engineering focuses on the design, infrastructure and sustainability of the structures and systems that support our daily lives, from the deepest tunnels to the tallest buildings. You will learn from global experts in some of the world's most advanced and unique facilities, like the beautiful Gull Lake — located three hours north of Toronto — where you will learn the art and science of land and water surveying during a two-week camp.



CORE 8

#### **AREAS OF FOCUS**

- Building Science
- Construction Management
- Environmental Engineering
- Mining & Geomechanics
- Structural Engineering
- Transportation Engineering & Planning

#### SAMPLE PEY CO-OP EMPLOYERS

- Aecon Construction
- Arcadis IBI Group
- EllisDon
- Tridel
- WSP

- City planning
- Energy use and supply
- Environmental management
- Transportation and infrastructure
- Water treatment and sustainable use

# Electrical & Computer Engineering

Electrical and computer engineers find innovative ways to harness electricity, integrate electronics and advance computing paradigms to improve people's lives. In the first two years of both programs, you'll study engineering design, math, computer programming, digital systems and electronics. The upper years are flexible, enabling you to suit your interests by focusing on at least two of six cuttingedge areas of focus. The electrical and computer engineering (ECE) programs are housed within the same department, giving you access to a breadth of engineering theory and practice to launch your career in fields such as artificial intelligence, health care, sustainability and more.



#### CORE 8

#### **AREAS OF FOCUS**

- Software & Computer Hardware
- Communications & Computer Networks
- Analog & Digital Electronics
- Communications, Signal Processing & Control
- Energy Systems & Electromagnetics
- Photonics, Quantum & Semiconductor Technologies

#### SAMPLE PEY CO-OP EMPLOYERS

- IBM
- Intel
- Scotiabank
- Tesla (U.S.)
- The Independent Electricity Operator (IESO)

- AI & machine learning
- Autonomous vehicles & robotics
- Health-care technologies
- Internet-of-things
- Smart green energy





# **Industrial Engineering**

Industrial engineers improve the way people interact with technologies and systems. They help organizations run safely, efficiently and sustainably. You will begin the program by learning the foundations of industrial engineering: operations research, programming and human-centered design. In your upper years, you'll take courses ranging from engineering psychology to data analytics to business process optimization. Industrial engineers see the big picture and apply their expertise everywhere, from streamlining health-care systems to rethinking supply chains and the online user experience in the era of artificial intelligence.



CORE 8

#### **AREAS OF FOCUS**

- Human Factors
- Information Engineering
- Operations Research
- AI & Machine Learning

#### SAMPLE PEY CO-OP EMPLOYERS • CIBC

- FedEx Express
- Kijiji
- Proctor and Gamble
- Walmart

- Big data analytics
- Financial analysis and planning
- Health-care engineering
- Management consulting
- Project management

#### CORE 8

### **Materials Engineering**

Materials engineers design and develop new materials and advance processes for producing materials sustainably. You'll learn how to manipulate the structure and properties of materials at molecular and atomic levels from professors who have expertise with a range of applications, including renewable energy, biomaterials, automotive technology and aerospace. You'll graduate with a solid foundation in how materials behave, and experience in using state-of-the-art characterization techniques and computer simulations.



For more information scan or visit: uofteng.ca/materials

#### **AREAS OF FOCUS**

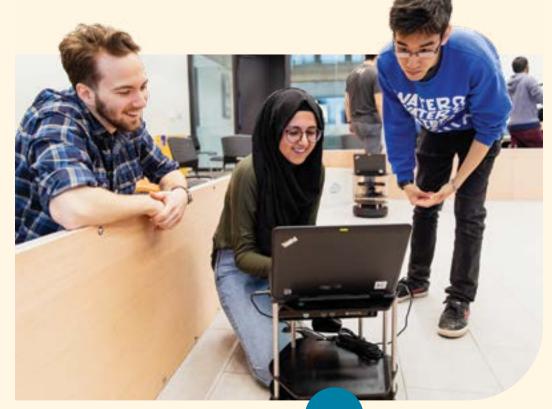
- Biomaterials
- Computational Materials & AI
- Design of Materials
- Manufacturing with Materials
- Sustainable Materials Processing

#### SAMPLE PEY CO-OP EMPLOYERS

- AMD
- Celestica
- Enbridge
- e-Zinc
- Husky Injection Molding

- Advanced electronics
- Biomaterials engineering
- Clean technologies
- Forensic engineering
- Manufacturing





## Mechanical Engineering

Mechanical engineers understand the world as parts in motion: from cars to medical devices, all design uses mechanical engineering principles. Our program is renowned for its applied approach, where you can put theory into practice through unique experiential opportunities both in the lab and in the field. You'll take courses in physics, risk assessment, thermodynamics, biomechanics and sustainable energy. You will also have the opportunity to learn about the physical principles of design: how individual components come together, and how to manufacture objects to make them safe, economical and easy to use.



### CORE 8

#### **AREAS OF FOCUS**

- Bioengineering
- Energy & Environment
- Manufacturing
- Mechatronics
- Solid Mechanics & Design

#### SAMPLE PEY CO-OP EMPLOYERS

- Bombardier
- Norsk Titanium (Norway)
- Ontario Power Generation
- Tesla (U.S.)
- Toronto Transit Commission

- Advanced manufacturing
- AI
- Communications systems
- Robotics
- Sustainable energy

#### CORE 8

### **Mineral Engineering**

Mineral engineering is the applied science of our interaction with the planet. What sets the Lassonde Mineral Engineering program apart is our broad approach to the discipline. Here, you'll learn mineral exploration, mine design and management, mineral processing and mining finance from our professors and working industry professionals. Toronto is an excellent place to study mineral engineering: the city is considered the mining capital of the world and home to more than 1,600 mining companies at U of T's doorstep.



#### **AREAS OF FOCUS**

- Environmental Impact & Risk Assessment
- Mine Design
- Mineral Processing
- Mining Economics & Finance
- Surface & Underground Mining
- Water Management

#### SAMPLE PEY CO-OP EMPLOYERS

- Agnico Eagle Mines Ltd.
- Imperial Oil
- Kinross Gold Corp.
- Teck Resources Limited
- Vale

- Consulting
- Financial institutions
- Mine & business management
- Strategic planning
- Sustainable mining practices





# **Engineering Science**

Engineering scientists bridge the gap between scientific theory and engineering applications. This program's unique curriculum structure differs from other programs at U of T Engineering. Teamwork, resiliency and determination are keys to success in this rigorous program. You'll thrive in a supportive and close-knit student community with instructors and staff who create an enriched learning experience.

#### FOUNDATION YEARS: YEARS 1 & 2

In your first two years, you'll be immersed in engineering, mathematics, science, computing and the social impact of technology. Through a course series called Praxis, you'll learn about the engineering design process by working in teams with community partners on real-world challenges.

#### MAJORS: YEARS 3 & 4

In your last two years, you'll build on your multidisciplinary foundation in one of eight majors:

- Aerospace Engineering
- Biomedical Systems Engineering
- Electrical & Computer Engineering
- Energy Systems Engineering
- Engineering Mathematics, Statistics & Finance
- Engineering Physics
- Machine Intelligence
- Robotics Engineering

#### EngSci

#### SAMPLE PEY CO-OP EMPLOYERS

- Genesys Canada Laboratories Inc.
- Intel
- Royal Bank of Canada
- Thermo Fischer Scientific
- Veoware (Belgium)

#### SAMPLE CAREER TRAJECTORIES

Roughly half of EngSci grads pursue graduate studies in engineering and science or professional degrees such as business, medicine or law. Others enter the workforce directly in diverse careers and industries or start their own companies.



For more information scan or visit: uofteng.ca/EngSci



## **Minors and certificates**

A powerful way to enhance your expertise is to pursue an engineering minor or certificate. In fact, more than 70% of our students graduate with at least one. Each is carefully designed to delve into an interdisciplinary topic that complements your program of study. Several programs are offered in partnership with other areas of U of T, such as the Faculty of Music, Rotman School of Management and the Munk School for Global Affairs & Public Policy — giving you full access to expertise across our world-class institution. Engineering students also have access to minors offered through U of T's Faculty of Arts & Science.



#### **ENGINEERING MINORS**

- Advanced Manufacturing
- Artificial Intelligence
- Bioengineering
- Engineering Business
- Environmental Engineering\*
- Music Performance
- Nanoengineering
- Robotics & Mechatronics
- Sustainable Energy\*
- U of T Global Leadership
- \* Part of U of T's Sustainability Scholar designation.

#### **ENGINEERING CERTIFICATES**

- Artificial Intelligence Engineering
- Communication
- Electric Vehicle Design
- Engineering Business
- Engineering Leadership
- Entrepreneurship, Innovation & Small Business
- Forensic Engineering
- Global Engineering\*\*
- Justice, Equity, Diversity & Inclusion in Engineering
- Mineral Resources
- Music Technology
- Nuclear Engineering
- Public Health & Engineering
- Public Policy & Engineering
- Renewable Resources
  Engineering
- \*\* Part of U of T's Global Scholars designation.



For more information scan or visit: uofteng.ca/minors

# РЕҮ Со-ор

The Professional Experience Year Co-op Program (PEY Co-op) has kickstarted the careers of thousands of U of T Engineering students since its launch in 1979. This flagship work-experience program was designed by the Engineering Career Centre in collaboration with industry partners and engineering leadership experts to help you build your professional profile and prepare for long-term career success.

Graduate with up to 20 months of meaningful work experience while earning a competitive salary, creating an extensive network and gaining professional skills you'll leverage for years to come.

## \$56,658 CAD

is the average PEY Co-op salary earned over a 12-month period last year (highest was \$120,000 CAD). All co-op positions are paid.



#### YOUR PEY CO-OP JOURNEY INCLUDES UP TO 20 MONTHS OF WORK EXPERIENCE

#### YEARS 1 & 2

Engage in programming designed to orient you to different industries in Year 1 and practice the skills you will use to secure employment through a series of preparatory modules in Year 2.

#### YEAR 3

Apply to and interview for co-op positions that align with your professional goals. You'll have access to 3,000+ jobs around the world and across every sector.

#### SUMMER WORK TERM (after Year 2)

Leveraging our connections with employers worldwide, you can pursue an opt-in four-month co-op work term in the summer before Year 3.

"Battery technology is an exciting space right now in the electric vehicle industry. My 16-month work term at Litens gave me the freedom to lead a cell dissection and battery characterization project, and see how all divisions of engineering come together as a team."

 Aryan Baweja recent chemical engineering grad

# aLitens

#### YEAR 4

You'll return to your final year of study having acquired work experience and professional skills that will complement your academic studies. Many students graduate with a job offer in hand.

**PROFESSIONAL EXPERIENCE YEAR WORK TERM** (after Year 3)

During this year, you'll pause your studies and immerse yourself as a full-time employee. Working for 12 to 16 consecutive months will give you ample opportunity to make meaningful professional contributions and build a valuable network.

### **Preparing you for success**

Your first year at U of T Engineering is about establishing fundamental knowledge in mathematics, applied sciences, engineering principles and design processes — regardless of the specific engineering program you choose. You will have 25 to 30 hours of class per week, leaving you with enough time to study, stay healthy and get involved in co-curricular or extracurricular activities.

Our tight-knit community thrives because success is a shared goal. You'll find support among your fellow classmates, from your professors and teaching assistants, and from staff members who facilitate a range of specialized services that address the unique needs of engineering students.

### **92%**

of first-year engineering students move into second year. For those who choose a different path, academic advisors are available to help them navigate program transfers.



#### SERVICES FOR ENGINEERING STUDENTS

**First Year Office:** Personalized guidance and special offerings, including preparatory programming in the summer ahead of first year.

**Registrar's Office:** Facilitates access to learning strategists, wellness counsellors and specialized advisors for accessibility, financial aid and for international student support.

**Chestnut Residence:** Offers ongoing support from an on-site Student Life Programs Coordinator.

#### Office of Diversity, Inclusion & Professionalism:

Dedicated to creating an environment and culture free of harassment, discrimination and intolerance.

**Student & Community Wellness Coordinator:** Supports you in navigating resources and leads initiatives to enhance student well-being.

**Engineering Career Centre:** Facilitates the PEY Co-op Program and supports student career development.

#### SUPPORTS & SERVICES AVAILABLE TO ALL U of T STUDENTS

- Academic Success Centre
- Accessibility Services
- Anti-Racism & Cultural Diversity Office
- Campus Safety
- Centre for International Experience
- Discovery Pharmacy
- First Nations House
- Health & Wellness Centre (with access to 24/7 counselling support)
- Multi-Faith Centre
- Sexual & Gender Diversity Office



For more information scan or visit: uofteng.ca/community

## How to apply

U of T Engineering follows a broad-based, holistic admissions review process. In addition to academic prerequisites, applicants are also requested to share more about themselves though a supplemental application form.



#### STEP 1: APPLY ONLINE

Submit your application online through the **Ontario Universities' Application Centre (OUAC)** at **ouac.on.ca** starting in early October. Shortly after you submit your application, we will send you an email acknowledgement with instructions on how to access your account on the Engineering Applicant Portal. The OUAC application deadline is January 15, 2025. All applicants to U of T Engineering should apply by November 7, 2024 on the OUAC for early consideration.

#### STEP 2: SUBMIT YOUR ONLINE STUDENT PROFILE AND DOCUMENTS

Log in to your **Engineering Applicant Portal** to complete your Online Student Profile (OSP) where you can tell us more about yourself. You can also share your academic history and extracurricular activities, rank the engineering programs of your choice and opt into PEY Co-op if interested. Your application will only be reviewed once your OSP is complete. For full deadline details, please visit **uofteng.ca/deadlines.** 



#### ACADEMIC REQUIREMENTS

For a full list of academic requirements organized by education system, visit **uofteng.ca/apply**.

#### **ENGLISH LANGUAGE REQUIREMENTS**

If your first language is not English, you must present proof of English facility prior to admission consideration, unless you have completed four years of full-time study in an English language school in a country where the predominant language is English. For details on required scores and acceptable tests, please visit uofteng.ca/eft.

#### STEP 3: APPLY FOR RESIDENCE

Residence is guaranteed for all new full-time students entering their first year of university in an undergraduate program for the first time by completing the following:

- Indicate your interest in residence by completing the **First Year StarRez application** by March 31, 2025
- Receive and accept an offer of admission by June 2, 2025
- Meet all deadlines and deposit requirements to maintain eligibility

For full details, please visit **uofteng.ca/housing.** 

#### STEP 4: TRACK THE STATUS OF YOUR APPLICATION

Log in to your **Engineering Applicant Portal** regularly to review your application status, respond to and upload any additional document requests, and LiveChat with a member of the U of T Engineering admissions team. Once a decision is made on your application, it will be posted here first. Most admissions decisions are made between February and May.

# Finance

The cost of a university education includes tuition, incidental fees, books, supplies and living expenses. To help you plan ahead, use the university's financial planning calculator (**uofteng.ca/planning-calc**) and explore scholarship opportunities and financial aid programs you may be eligible for.

#### COSTS

2024-2025 tuition, incidental fees for full-time studies and the PEY Co-op program fee are presented below in Canadian dollars; 2025-2026 fees are subject to change. For a list of housing options and costs, visit **uofteng.ca/housing**.

	DOMESTIC	INTERNATIONAL	
Tuition	\$14,180 (Ontario residents) \$16,090 (non-Ontario residents)	\$67,370	
Incidental Fees	\$2,080.72	\$2,080.72*	
Residence & Meal Plan	\$12,995 — \$37,495	\$12,995 - \$37,495	
Books & Supplies	\$1,500 - \$2,000+	\$1,500 - \$2,000+	
РЕҮ Со-ор	You can opt into PEY Co-op during the U of T Engineering application process as outlined on page 18. The current total PEY Co-op program fee is \$3,740, payable in six installments over three years starting in your second year. There is no cost to participate in PEY Co-op programming in your first year.		

\* International students are required to purchase mandatory health insurance (called UHIP) — \$756 for 2024-2025.



#### SCHOLARSHIPS & AWARDS

All high school applicants to U of T Engineering are automatically considered for most admission scholarships on the basis of all information submitted in their Online Student Profile. Some scholarships and awards require a separate application. Engineering applicants are also eligible for several university-wide scholarships. Major U of T scholarships requiring nomination include the National Scholarship for Canadian high school students and the Lester B. Pearson International Scholarship for international students.

See a full list of scholarships and awards available to U of T students using the award explorer: **uofteng.ca/awardexplorer**.

Some applicants may also be eligible to submit an Awards Profile at: uofteng.ca/awardsprofile.

#### FINANCIAL AID

We are committed to ensuring that all admitted domestic students\* are able to enrol in and/or complete their studies regardless of financial means. This commitment led to the creation of a unique financial aid program called the University of Toronto Advance Planning for Students (UTAPS). Through a nonrepayable grant, UTAPS covers unmet financial need after a student has received the maximum amount of support through government assistance (e.g., OSAP for Ontario students).

Students who would like to be considered for UTAPS must complete and submit an application through the Need Navigator. For more information, visit: uofteng.ca/UTAPS.

\* While international students are not eligible for needs-based funding, other financial supports may be available: uofteng.ca/finances.

> Visit uofteng.ca/tours to register for a student-led tour





### Get a taste of life at U of T Engineering through one of our year-round programs for high school students

Our immersive programs for Grades 9 to 12 seamlessly integrate real-world labs, hands-on projects and collaborative problem solving. Join us on campus to ignite your passion with one of our programs:

- DEEP Summer Academy
- Blueprint
- IDEA: Leaders in Training
- CREATE: Engineering Design Challenges

Learn more: uofteng.ca/highschool

# It's easy to stay on top of what's happening at U of T Engineering

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