

Undergraduate Viewbook 2020–2021

ontariotechu.ca

# Say hello to Ontario Tech University



No two students take the same	06	<b>Ridgebacks reflect</b> Defining success.
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Where will	44	<b>Explore the world</b> A limitless classroom.
yours begin?	<b>46</b>	<b>Ridgeback life</b> You're more than just a student.
	50	<b>Residence living</b> Your home away from home.
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	60	<b>Admissions</b> The first steps to your future.
	66	<b>Visit us</b> See what makes us great.



Ontario Tech University proudly acknowledges the lands and people of the Mississaugas of Scugog Island First Nation, which is covered by the Williams Treaties.

We are situated on the Traditional Territory of the Mississaugas-a branch of the greater Anishinaabeg Nation—which includes Algonquin, Ojibway, Odawa and Pottawatomi.

# Some questions are best answered outside the classroom.

We embed multidisciplinary teams of students in businesses, research settings and community organizations, to solve the complex challenges facing our modern society.

# **Ridgebacks reflect**

How do you define success? We define it by our graduates.

#### Within six months of graduation:



of graduates are employed

Of the 85%.

**77% ARE EMPLOYED WITHIN** THEIR FIELD OF STUDY

of our undergraduates pursue further education and qualifications



earn more than \$50,000 annuallywhich is above the Ontario average

#### **Employers:**

- Amazon
- Bruce Power
- Canada Revenue Agency
- Canadian Nuclear Laboratories
- Dalton Pharma Services
- · Deloitte

- Durham District School Board
- Durham Regional Police Service
- Facebook
- · Google
- Hydro One
- IBM

- · Lakeridge Health
- Ontario Power Generation
- SickKids
- Tesla
- Ubisoft





"

Ontario Tech provides the critical support students need to transition from a learning environment into the industry. The university connected me with industry leaders and ensured I was ready to present myself to future employers. I felt prepared to enter the workforce and my solid foundation allowed me to seamlessly transition into my career, and quickly make an impact.

#### JILLIAN RUTTAN-MORILLO

Nuclear Engineering and Management, Class of 2014 Technical Engineer/Officer, Ontario Power Generation Bowmanville, Ontario Faculty of Business & Information Technology

Are you ready to make an impact with technical skills and knowledge you'll gain from our Faculty of Business and Information Technology? Our faculty members are experts in their respective fields. They will help you develop your problem-solving skills, and give you the guidance you need to excel in our capstone programs and internships.

ontariotechu.ca/fbit

Post Sinc



#### Seven ways we stand out

- 1 Create high-quality interactive media including games and virtual simulations, using futuristic animation, 3D models, sound recording and production.
- 2 You'll gain hands-on experience investing in the financial market, using simulated trading and portfoliomanagement software.
- **3** Evaluate and exploit enterprise networks in the Hacker Research Lab.
- 4 In your third and fourth year, you can participate in work internships with industry partners to gain relevant work experience in your field.
- Frepare for industrystandard certifications such as (ISC)<sup>2</sup>, CompTIA, three levels of Cisco and many more.
- 6 Unique to our programs, we offer built-in courses that contribute to your designation as a CPA, CHRL and CFA.
- 7 Our Accounting program is accredited by CPA Ontario. Complete all the required courses and you'll be eligible to enter the CPA Professional Education Program (CPA PEP).

# Programs

**Business & Information Technology** 

#### Commerce

#### Bachelor of Commerce (Honours)

#### Majors

- Accounting
- Finance
- Marketing
- Organizational Behaviour and Human Resources Management
- Technology Management

#### Information Technology

Bachelor of Information Technology (Honours) Majors

- Game Development and Entrepreneurship
- Networking and Information Technology Security
- Technology Management

For a list of minors, visit ontariotechu.ca/minors.

#### **Experiential learning**

Internships, capstone programs, and hands-on business and information technology (IT) training in our labs.

"

Our professors were always there for guidance, advice and support, and their course material was relevant. It prepared me for a smooth transition into the workforce while ensuring I passed my professional exams the first time.

#### - GREGORY DIONNE -

Commerce (Honours) in Accounting, Class of 2008 Associate Director, Canadian Public Accountability Board, Toronto, Ontario



#### Do you see yourself as a(n)...

3D Animator Accountant Advertising Executive Business Analyst Business Analytics Consultant Corporate Lender Digital Forensic Specialist Financial Auditor Game Designer Game Engine Programmer Game Producer Games User Researcher Human Resources Consultant

Information and Communications Technology Manager

Information Security Analyst

IT and Network Supporter

IT Security Auditor

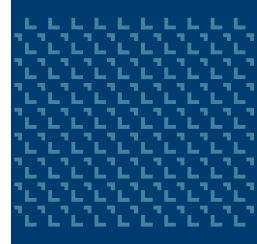
Learning and Development Specialist

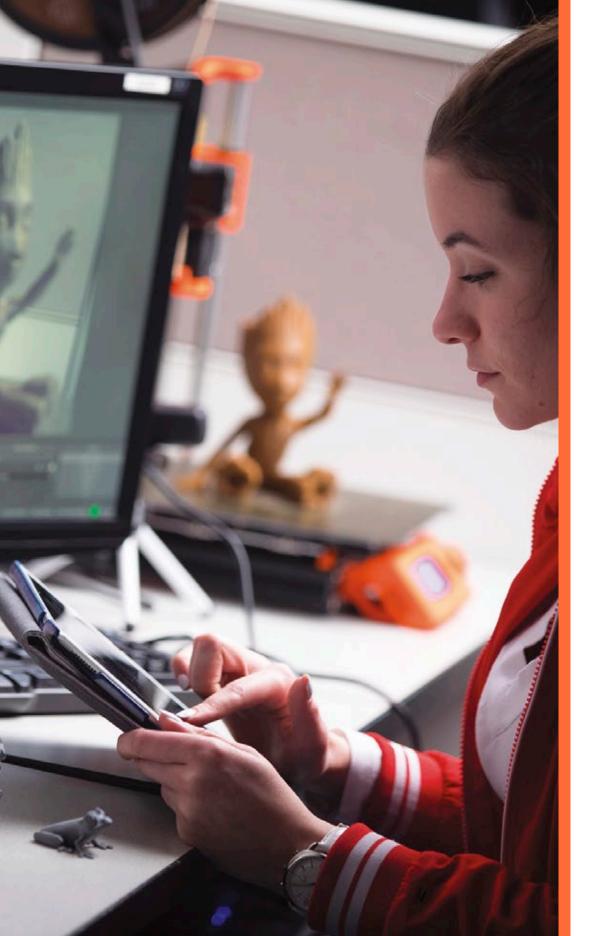
Marketing Researcher

Securities Trader

#### College-to-University Transfer Programs

You can turn your Ontario college diploma (or equivalent) into a university degree in as little as two years. For more information, visit ontariotechu.ca/pathways.





**15 to 20** extra-curricular events organized every year by our students

**44** median upper-year class size

82% of students are employed within six months of graduation

**99%** of students participate in experiential learning opportunities

**37** Capstone project partner organizations

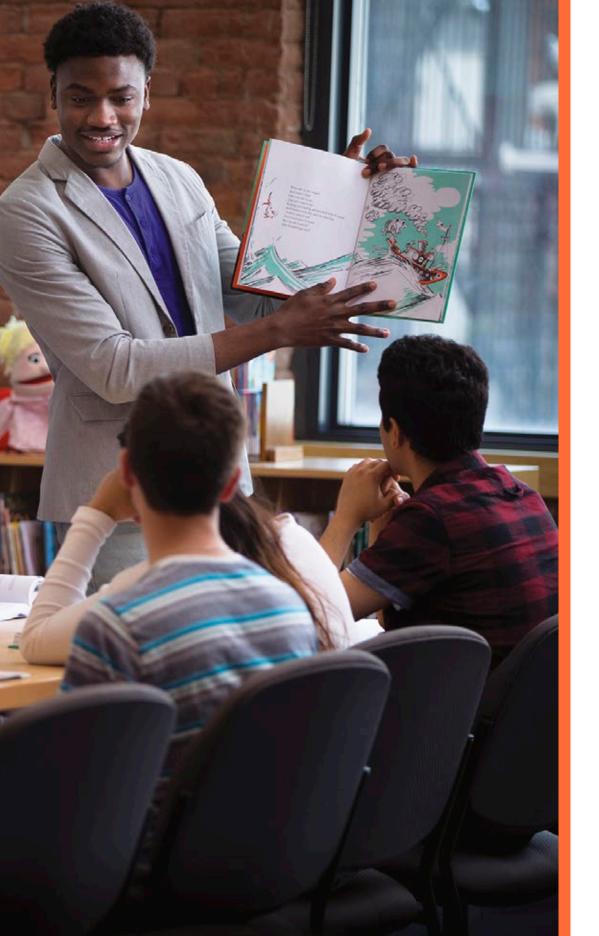
**49** internship employers

**\$5,000** Women for STEM scholarships available for 20 female students, based on incoming GPA

# Faculty of **Education**

Our unique 16-month program structure—and emphasis on technology in learning and teaching—defines our Bachelor of Education program. From our forward-thinking curriculum, respected and award-winning instructors, immersive field experiences (practicum) and evidence-based practices, you'll build a strong and well-rounded foundation to start a meaningful career on the front lines of modern education.

ontariotechu.ca/fed



#### Six ways we stand out

- Our 16-month program enables you to graduate early and prepared, and gives you an upperhand when entering the workforce.
- 2 A mandatory math course prepares you for the pending provincial legislation that requires you to pass a math exam.
- 3 You'll imagine and design in innovative learning environments like the Makerspace.
- 4 Foundation Fridays: Participate in fieldexperience observation, professional development or curriculum enrichment days, which include conferences on special topics, Makerspace days and career expos.
- 5 Use, critique and produce digital tools and technologies, including online learning platforms.
- 6 Your third semester is fully online, using virtual classrooms.

# Programs

Education

#### **Concurrent Education**

Apply directly to the undergraduate program you're interested in and select the Concurrent option on your application.

#### **Connected Program**

Apply in your second year of undergraduate study. Participate in education seminars, visit classes, and meet faculty and students to see if an education career is the right fit for you.

#### **Consecutive Education**

Primary/Junior Bachelor of Education

#### **Consecutive Education**

Intermediate/Senior Bachelor of Education

#### Experiential learning

**Primary/Junior:** Placements in both a Primary (Kindergarten to Grade 3) and a Junior (grades 4 to 6) classroom.

**Intermediate/Senior:** Placements in both an Intermediate (grades 7 to 10) and Senior (grades 11 and 12) classroom.

"

Choosing Ontario Tech to obtain my Bachelor of Education was an easy decision. Its focus on technology is what employers look for.

The small class sizes offered a personalized experience, not only with knowledgeable instructors, but with my peers as well. Lifelong bonds that continue today have advanced my career and enriched my life.

#### ELIZABETH BURKE

Education, Class of 2012 Teacher, Durham District School Board, Durham Region, Ontario



#### Do you see yourself as a(n)...

Elementary School Teacher Secondary School Teacher Educational Consultant Child and Youth Counsellor Educational Publisher

Graduate Student in Education

Guidance Counsellor International Teacher

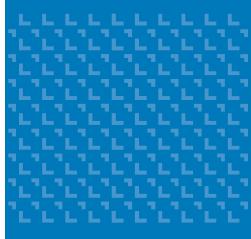
Private Tutor

Special Education Resource Teacher

Trainer in Private and Public Sector Organizations

> University or College Academic Advisor

> > Youth Worker





#### 21<sup>st</sup> century institution producing innovative educators

80% of students graduate with highest distinction

87% of students are employed within six months of graduation

**1:1** mentoring by practicum liaison instructors

**20** median upper-year class size

8 school boards for field placements

## Faculty of Energy Systems & Nuclear Science

Breaking new ground in the energy sector starts with our Faculty of Energy Systems and Nuclear Science. Modern energy systems and nuclear science continually drive us toward smarter solutions and emerging technologies. We're ideally positioned near major generating sites as well as technology-based industries that support energy production. We're all about people, machines and outcomes that give you an advantage over the competition.

ontario<mark>tech</mark>u.ca/fesns





#### Six ways we stand out

- 1 You'll use top-of-the-line engineering tools, starting with 3D CAD and advancing to analytical software.
- 2 Practice hands-on radiation detection, measurements and integrating skills within the environmental context.
- 3 Integrate and innovate in our Sigma Lab—a world-class innovation space. Try digital tools like virtual reality for energy applications.
- 4 Participate in hands-on learning in our Wind Chamber Lab, Nuclear Simulation Lab and Environmental Radiation Lab.
- 5 Use various instruments for radiation counting and isotope identification.
- 6 Learn different energy sources, scenarios, risks and uncertainties for building a more sustainable future.

## **Programs** Energy Systems & Nuclear Science

Health Physics and Radiation Science Bachelor of Science (Honours)

#### **Nuclear Engineering**

Bachelor of Engineering (Honours) Bachelor of Engineering and Management (Honours) Sustainable Energy Systems Bachelor of Technology (Honours)

For a list of minors, visit ontariotechu.ca/minors.

**Experiential learning** Co-op and internship placements available.

"

My experience has shown me that the university is well represented in the nuclear industry. This speaks highly to the quality of professors, the course structure and the university's overall commitment to deliver an education useful to employers.

The professors and support staff have a sincere dedication to your success.

#### **BRIAN CROOK**

Engineering (Honours) in Nuclear Engineering, Class of 2012 Control Room Shift Supervisor – training program, Bruce Power, Tiverton, Ontario



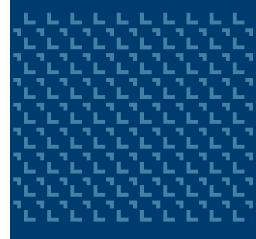
#### Do you see yourself as a(n)...

Building Manager Energy Auditor Engineering Consultant Engineering Project Manager Health Physicist Nuclear Engineer Radiation Scientist Regulatory Engineer Research and Development Scientist Safety Assessment Engineer Smart City Planner Sustainability Specialist

Waste Management and Decommissioning Engineer

#### College-to-University Transfer Programs

You can turn your Ontario college diploma (or equivalent) into a university degree in as little as two years. For more information, visit ontariotechu.ca/pathways.





**70%** of students are employed within six months of graduation

**\$5,000** Women for STEM scholarships available for 20 female students, based on incoming GPA

**47** median upper-year class size

97% of students participate in experiential learning opportunities during their degree

#### Nuclear Engineering

Canada's only undergraduate program of its kind

## Management option

Nuclear Engineering students can take five years and gain a solid foundation in business—accounting, finance, operations, marketing and human resources

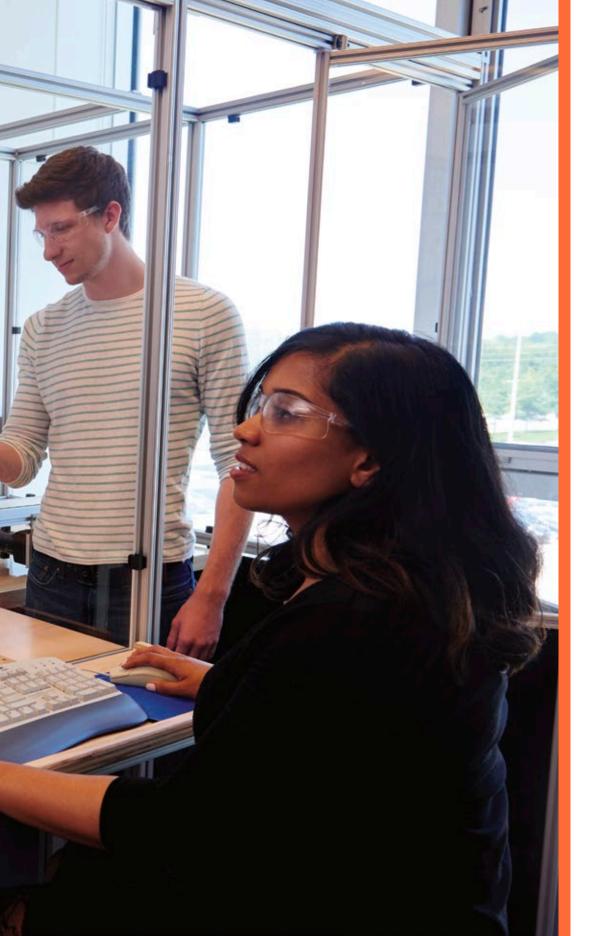


# Faculty of **Engineering & Applied Science**

Design your future with our world-class Faculty of Engineering and Applied Science. From developing innovative solutions that address global problems, to turning ideas into brilliant products, our high-tech programs give you the tools to succeed. Our programs are fully accredited by the Canadian Engineering Accreditation Board (CEAB). As an Ontario Tech engineering grad, you'll help make the world a better place.

Mechatronics Engineering is our newest program and the first cohort will graduate in the winter of 2020.

ontariotechu.ca/feas



#### Five ways we stand out

- Practice hands-on learning, and use the latest engineering technologies in our brand new and modern lab spaces.
- 2 Use industry-standard CAD software to design and produce 3D drawings of parts, then make them come to life in the Rapid Prototyping and Manufacturing Lab.
- 3 Design and test the functionality of engineering products—with the hands-on opportunity to design, test and modify an engine—using various tools and software in our internationally renowned ACE Climatic Wind Tunnel.
- 4 Turn your engineering ideas into reality in our Jeffrey Boyce Innovation Studio. Use our stateof-the-art, fully equipped design studio to create models, test prototypes and collaborate with your classmates.
- 5 Join Women in Engineering and build lifelong friendships through the peer-mentorship program, and be encouraged to reach your potential by our uplifting and supportive female engineering community.

### **Programs** Engineering & Applied Science

\_\_\_\_\_

#### Automotive Engineering

Bachelor of Engineering (Honours) Bachelor of Engineering and Management (Honours)

#### **Electrical Engineering**

Bachelor of Engineering (Honours) Bachelor of Engineering and Management (Honours) Specialization: Smart Grid

#### Manufacturing Engineering

Bachelor of Engineering (Honours) Bachelor of Engineering and Management (Honours)

#### Mechanical Engineering

Bachelor of Engineering (Honours) Bachelor of Engineering and Management (Honours)

Specialization: Energy Engineering

#### Mechatronics Engineering

Bachelor of Engineering (Honours) Bachelor of Engineering and Management (Honours)

#### Software Engineering

Bachelor of Engineering (Honours) Bachelor of Engineering and Management (Honours) Specialization: Internet of Things

#### **Experiential learning**

Co-op and internship placements available.

# The university provides the latest in technology and engineering courses, while also offering endless support with resumé and interview preparation.

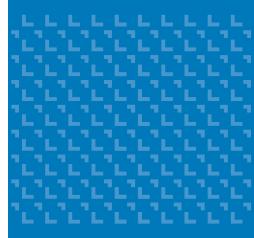
#### - KYLE FRANCIS -

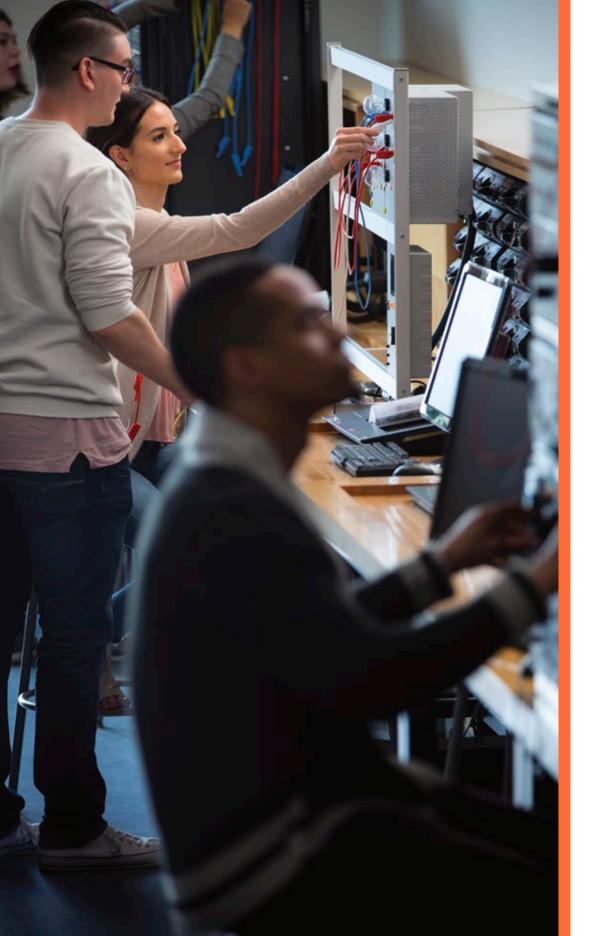
Engineering and Management (Honours) in Mechanical Engineering, Class of 2015 Engine Assembly, Honda of Canada Manufacturing, New Tecumseth, Ontario



#### Do you see yourself as a(n)...

Automation Engineer Automotive Engineer **Battery Test Engineer Chassis Mount Engineer Controls Engineering Specialist Electro-Mechanical Engineer** Lead Quality Engineer Mechanical Design Engineer **Mobility Solutions Engineer Network Design Engineer Product Design Engineer** Senior Software Engineer Software Developer Software Development Engineer **Telecommunications Engineer** Vehicle Systems Engineer





**89%** of students are employed within six months of graduation

**\$5,000** Women for STEM scholarships available for 20 female students, based on incoming GPA

**100**<sup>+</sup> companies provide internship and co-op opportunities

#### Automotive and Manufacturing

The only accredited engineering programs of their kind in Canada

## Management option

Take five years and gain a solid foundation in business—accounting, finance, operations, marketing and human resources

# We research

#### Innovation in research

We advance the ideas generated by our outstanding faculty and students, who conduct research that leads to transformative cultural, economic and scientific progress worldwide. By seeking answers to big questions, we solidify our reputation for research excellence.



# Faculty of Health Sciences

Is your purpose to help others? Are you interested in developing an interdisciplinary approach to healthcare, clinical practice and scientific research? If so, begin your health-care education with our Faculty of Health Sciences. In our innovative, technology-enriched environment, you can work towards opportunities in medical laboratory science, nursing, public health or kinesiology.

ontario<mark>tech</mark>u.ca/fhsc



#### Six ways we stand out

- 1 Engage in experiential learning by performing assessments and interventions on simulation mannequins in our unique Interprofessional Centre of Excellence in Simulation.
- 2 Examine real patient tissues and cultures to learn about the progression of diseases, and disorders.
- 3 Work with people of all ages and all abilities including children with disabilities, older adults and athletes to gain valuable and diverse hands-on experience.
- Conduct blood typing and blood compatibility tests using high-quality clinical instruments.
- 5 Perform diagnostic tests on blood, body fluids and tissue samples to detect diseases, disorders, and infections.
- 6 Participate in a fourth-year research practicum, and work closely with faculty members on a research project and/ or something you would like to pursue in the future.

### **Programs** Health Sciences

#### **Health Sciences**

Bachelor of Health Sciences (Honours) Specializations: Human Health Science, Public Health

Kinesiology Bachelor of Health Sciences (Honours)

#### **Medical Laboratory**

Science Bachelor of Health Sciences (Honours)

Nursing Bachelor of Science in Nursing (Honours)

For a list of minors, visit ontariotechu.ca/minors.

#### **Experiential learning**

Health Sciences: Fourth-year research practicum available. Kinesiology: Fourth-year athletic therapy or applied internship, and research practicum available.

Medical Laboratory Science: Fourth-year, two-semester practicum placement. Nursing: Clinical placements begin in first-year.

"

The university provides plenty of opportunities to get involved in research, such as practicum courses, internships and volunteer opportunities. This experience is invaluable for students looking to engage in scientific research early in their careers or for students looking to continue their education in research-based studies. The small class sizes make communication with your professors and classmates easy, and accessible.

#### ERICA DOVE

Health Sciences (Honours) in Kinesiology, Class of 2015 Research Assistant, Ontario Shores Centre for Mental Health Sciences, Whitby, Ontario



#### Do you see yourself as a(n)...

#### **Health Sciences**

Epidemiologist

Occupational Health and Safety Co-ordinator

Public and Non-Profit Sector Administrator

#### Kinesiology

Certified Exercise Physiologist

Physical/Occupational Therapist

Sport, Exercise or Health Psychologist

#### **Medical Laboratory Science**

Registered Medical Laboratory Technologist

Biotechnology and Pharmaceutical Researcher

Reagent, Instrument and Pharmaceutical Sales Representative

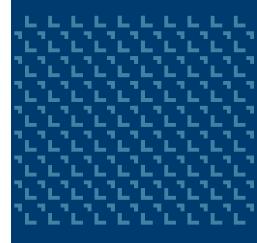
#### Nursing

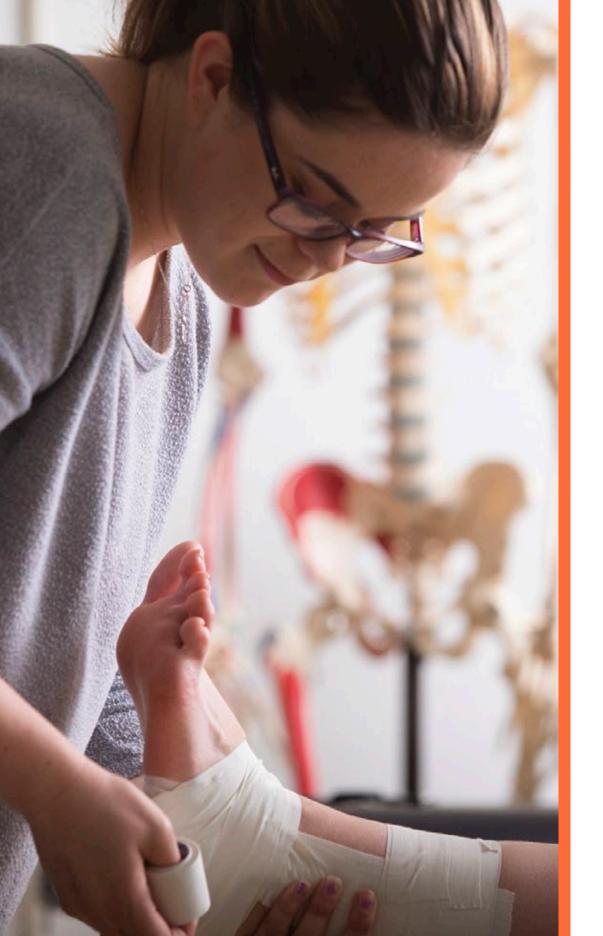
**Registered Nurse** 

Health Administration and Management Leader Health Policy Advocate

#### College-to-University Transfer Programs

You can turn your Ontario college diploma (or equivalent) into a university degree in as little as two years. For more information, visit ontariotechu.ca/pathways.





#### **50** median upper-year class size

## 24

students per Kinesiology laboratory section, ensuring more hands-on lab experience

## 100+

local, regional, and national organizations provide clinical and internship placements

#### 91% of students are employed within six months of graduation

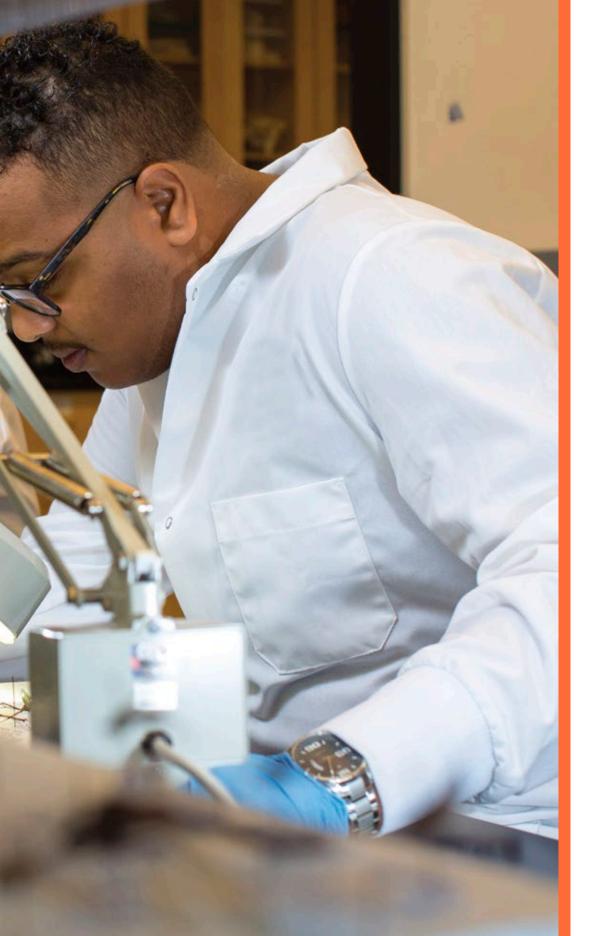
**1,000**<sup>+</sup> clinical hours for Nursing students

**1 of 2** degree-granting Medical Laboratory Science programs in Canada

# Faculty of **Science**

Our Faculty of Science sets the standard for advanced technological learning, putting the focus on our students having real-world experiences. Discover some of the most intensive and comprehensive undergraduate programs available anywhere, with cutting-edge specializations, opportunities for exciting research and the brightest faculty from around the world. We're here to help you learn the technical skills you need—and that employers want—for a productive career in science.

ontario<mark>tech</mark>u.ca/fsc



#### Seven ways we stand out

- Determine the chemical makeup of samples using research-grade instruments, such as gas chromatography, mass spectrometry and nuclear magnetic resonance spectroscopy.
- 2 Study the response of organisms like fruit flies and nematodes, and learn what they can tell us about the human body.
- 3 Use devices like Raspberry Pi, and software like Matlab and Python, to collect and analyze environmental data.
- 4 Take on diverse math problems like determining fuel strategies for hybrid vehicles, or optimizing financial portfolios.
- 5 Collect and analyze evidence, and apply it to forensic investigations in our Crime Scene House.
- 6 Develop your own interactive web applications for both desktop and mobile web, with tools widely used in the computer industry.
- 7 Apply your classroom and lab concepts to realworld situations, and gain valuable work experience in our five-year co-op option.

# Programs

Science

#### Applied and Industrial Mathematics

Bachelor of Science (Honours) Bachelor of Science and Management (Honours)

#### **Biological Science**

Bachelor of Science (Honours) Bachelor of Science and Management (Honours)

**Specializations:** Environmental Biology, Environmental Toxicology, Life Sciences, Pharmaceutical Biotechnology

#### Chemistry

Bachelor of Science (Honours) Bachelor of Science and Management (Honours) Specializations: Chemical Biology, Pharmaceutical Chemistry

#### **Computer Science**

Bachelor of Science (Honours) Bachelor of Science and Management (Honours) Specializations: Data Science, Digital Media

For a list of minors, visit ontariotechu.ca/minors.

#### **Experiential learning**

Co-op placements are available for all programs, with the exception of Forensic Science which has an embedded Capstone component instead.

"

When I first visited the university, my attention was immediately drawn to the undergraduate laboratories. I aspired to pursue a career in research as a first step towards applying to medical school. The professors made me feel like I was more than a number on a test sheet. They pushed me to break new ground and they supported me throughout the application process to medical school. My current successes are due to my years at Ontario Tech and to the dedicated staff who continue to inspire students.

#### - SÉBASTIEN ROBERT -

Science (Honours) in Biological Science, Class of 2015 Medical student, University of Ottawa, Ottawa, Ontario

#### **Forensic Science**

Bachelor of Science (Honours) Bachelor of Science and Management (Honours) Specializations: Forensic Biology, Forensic Chemistry, Forensic Physics

#### Integrative Neuroscience

Bachelor of Science (Honours) Bachelor of Science and Management (Honours)

#### **Physics**

Bachelor of Science (Honours) Bachelor of Science and Management (Honours)

**Specializations:** Astrophysics, Nanotechnology and Clean Energy

#### Do you see yourself as a(n)\*...

Biotechnologist

**Conservation Biologist** 

Crime Scene Officer

Drug Discovery and Pharmaceutical Researcher

Energy Supply Specialist

Environmental Protection Officer or Technician

Forensic Technologist

Investment Analyst

Laboratory Technician

Machine Learner and Data Scientist

Medical Professional

Medical Research Scientist

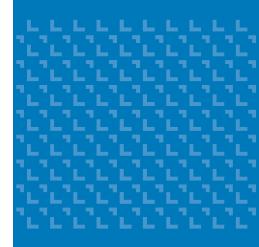
Pharmacist

Science Communications Officer

\*Some of these careers may require further study.

#### College-to-University Transfer Programs

You can turn your Ontario college diploma (or equivalent) into a university degree in as little as two years. For more information, visit ontariotechu.ca/pathways.





#### 82% of students are employed within six months of graduation

**\$5,000** Women for STEM scholarships available for 20 female students, based on incoming GPA

**22** median upper-year class size

**1 of 2** accredited Forensic Science programs in Canada

#### Co-op education

Flexible work placements of four, eight, 12 or 16 months allows you to experience long-term project work, and skill development

## Management option

Take five years and gain a solid foundation in business—accounting, finance, operations, marketing and human resources

## Faculty of Social Science & Humanities

Engaging themes—like social and environmental justice, and human rights issues—form a prominent part of our Faculty of Social Science and Humanities. We'll drive you to consider progressive social policy under guidance of diverse scholars, globally renowned for their policy-relevant, cutting-edge research. Learn skills pertaining to the roles, practices, and impacts of communications and digital media in society. Enhance your education with experiential learning opportunities like our practicum and internship options, and you'll be prepared for careers where you can make a difference.

ontariotechu.ca/fssh



#### Six ways we stand out

- Gain insight into the ways psychological theory helps provide solutions to important problems pertaining to the justice system, including police procedures, inaccurate eyewitnesses, wrongful convictions and the interrogation of children.
- 2 Participate in debates on the ways social media is changing society.
- 3 Critically analyze the impact of laws and policies on various groups in society—and around the world—and engage in discussions regarding legal and policy changes.
- 4 Engage with community partners to identify and provide potential solutions to problems of social inequality, oppression, and social exclusion.
- 5 Conduct analyses of policies and programs, and look at their impact through a political science lens.
- 6 Learn how to create and implement a professional communications campaign that informs the public about the social justice issues you care about.

### Programs Social Science & Humanities

**Communication and Digital Media Studies** Bachelor of Arts (Honours)

#### **Criminology and Justice**

Bachelor of Arts (Honours) Specializations: Criminal Justice; Youth. Crime and Justice.

### Forensic Psychology Bachelor of Arts (Honours)

#### **Liberal Studies**

Bachelor of Arts (Honours)

#### **Legal Studies**

Bachelor of Arts (Honours) Specializations: Alternative Dispute Resolution, Human Rights Law, Information Law

#### Political Science Bachelor of Arts (Honours)

Specializations: Political Communication; Social Justice, Globalization and Development

#### Psychology

Bachelor of Arts (Honours) Bachelor of Science (Honours)

For a list of minors, visit ontariotechu.ca/minors.

**Experiential learning** Fourth-year practicum or internship available.

This university is amazing! Being a part of the Ontario Tech community taught me so much, and helped me grow as a critical and analytical thinker. These skills help guide me every day as an officer with the Peterborough Police Service.

#### - ISAIAH GRAHAM -

Arts (Honours) in Criminology and Justice, Class of 2016 Police Officer, Peterborough Police Service, Peterborough, Ontario



#### Do you see yourself as a(n)\*...

Corrections or Police Officer Counsellor Educator Freelance Content Creator Government Administrator Human and Social Services Worker Human Resources Manager Human Rights Advocate

**Investigative Consultant** 

Lawyer

Marketing or Communications Specialist

Media Relations Officer

Mediator

Mental Health Worker

**Policy Analyst** 

Psychologist

**Public Relations Officer** 

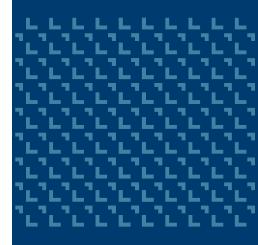
Researcher

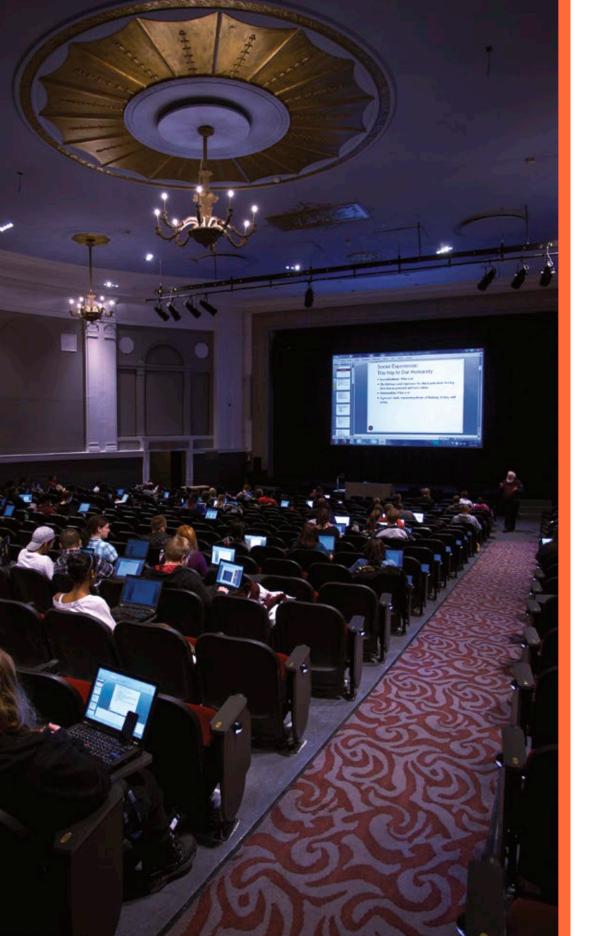
Victims' Services Co-ordinator

\*some of these careers may require further study.

#### **College-to-University Transfer Programs**

You can turn your Ontario college diploma (or equivalent) into a university degree in as little as two vears. For more information, visit ontariotechu.ca/pathways.





### 50<sup>+</sup> organizations provide placement opportunities

81% of students are employed within six months of graduation

**27** faculty members nominated for Celebrate Teaching awards in 2018

b academic advisors dedicated to your success

**46** median upper-year class size

**Double** major option School of Graduate & Postdoctoral Studies

With more than 35 master's, PhD and graduate diploma programs, your possibilities are endless. Our unique research environment and advanced education ecosystem is designed to help you grow and excel within your field. With more programs and more opportunities, you can set yourself up for a rewarding career and personal growth.

#### ontariotechu.ca/gradstudies

## **Programs** Graduate & Postdoctoral Studies

### **Business and Information Technology**

Accounting (graduate diploma) Information Technology Security (MITS)

#### Education

Education (MA and MEd) Education and Digital Technologies (graduate diploma)

#### Engineering

Automotive Engineering (MASc and MEng) Electrical and Computer Engineering (MASc, MEng and PhD) Engineering Management (MEngM and graduate diploma) Mechanical Engineering (MASc, MEng and PhD)

#### **Health Sciences**

Health Sciences (MHSc and PhD)

#### Nuclear

Nuclear Design Engineering (graduate diploma) Nuclear Engineering (MASc, MEng and PhD) Nuclear Technology (graduate diploma)

#### Science

"

Applied Bioscience (MSc and PhD) Computer Science (MSc and PhD)\* Materials Science (MSc and PhD) Modelling and Computational Science (MSc and PhD) \*Cross-faculty program.

### Social Science and Humanities

Criminology (MA) Criminology and Social Justice (PhD) Forensic Psychology (MSc and PhD)

#### Legend:

MA: Master of Arts
MASc: Master of Applied Science
MEd: Master of Education
MEng: Master of Engineering
MEngM: Master of Engineering Management
MHSc: Master of Health Sciences
MITS: Master of Information Technology Security
MSc: Master of Science
PhD: Doctor of Philosophy



I chose Ontario Tech University for graduate studies because I fell in love with research during the completion of my undergraduate thesis project. I enjoy the relationships I've built with my supervisor and my classmates, as well as the supportive research environment.

#### SARAH HABIBI

Science (Honours) in Biological Science, class of 2015 Education, class of 2016 Current PhD student in Applied Bioscience



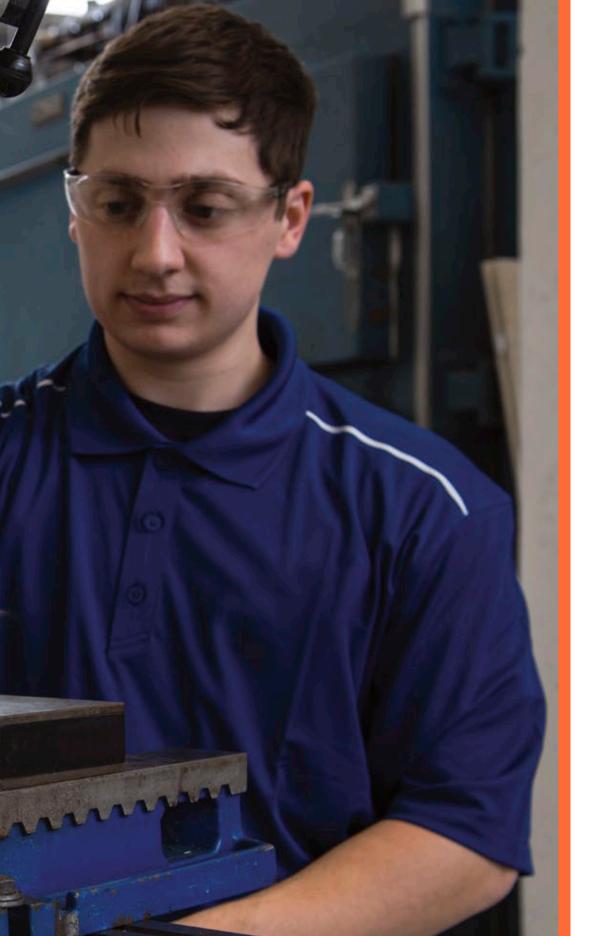
# We develop

### **Game Development Laboratory**

Our unique lab involves studying and developing games, and engaging with game technologies as a whole. You'll have all the tools necessary to create cutting-edge gaming experiences: A full-body motion-capture studio, an audiometric room for recording and mixing, and state-of-the-art game development workstations.

# F Experiential Learning

We have a long history of delivering successful work-integrated learning to our students to ensure you're well prepared for the workforce. These activities enrich your learning, and promote intellectual development, teamwork, communication abilities, technical experience and other professional skills.



# What are the **benefits?**

- More than 300 industry and community partners to help you build your resumé.
- Earn money while you earn credits.
- Enhance your skills and gain valuable networking opportunities.
- Access real-time coaching and feedback.

# Time to get in **the field**

Gain experience through:

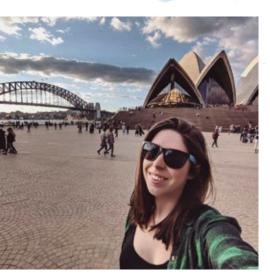


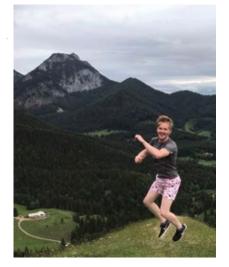
# **Explore the world**

ontariotechu.ca/international

### Your learning is limitless—so is your classroom.







#### Experience the world so you can change it

- Competitive advantage
- Experience new cultures
- Learn a new language
- · Paid work and volunteer opportunities
- Scholarship options
- · Short- and long-term opportunities

# A place to learn and a home for life.

We welcome students, alumni, staff and faculty, as well as visitors from all around the world. Everyone has a place within our campus community, where learning, sharing and growth are continuous endeavours.

# Ridgeback life



## What is a **Ridgeback**? ridge • back /'rijbak/

#### noun

South African hunting dog. Versatile hunter and home guardian. Smart, sometimes stubborn.

A Ridgeback embodies our university's identity. It's also our faithful mascot that represents our 250<sup>+</sup> varsity student-athletes, and intramural and extramural teams.



#### Athletics and Recreation

What makes **YOU** a Ridgeback?

#### Varsity teams

- badminton
- basketball
- curling
- dance
- golf
- · ice hockey
- lacrosse\*
- rowing
- soccer

#### Extramurals

- flag football\*
- ice hockey
- volleyball

#### Intramurals

- badminton
- basketbal
- dodgeball
- flag football
- floorball
- · ice hockey
- soccer
- table tennis
- volleyball

\*Currently only offered as a women's team.

### Ontario Tech Student Union

#### otsu.ca

The Ontario Tech Student Union provides you and your peers with leadership and representation to improve your overall student experience, and they oversee a range of programs and services. You can join a campus club, participate in large campus events and cultural celebrations, or take advantage of a variety of wellness and support services.

#### **Clubs and Societies**

- Anime on Campus
- Aspiring Educators
- Blood Services
- Board Games
- Campus ChurchCampus Community Gardens
- Community Connect
- Digital Art
- · Film Club
- Free the Children
- Global Brigades
- $\cdot\,$  Health and Wellness
- K-Pop Club

- · LANWAR X
- Military Interest Group
- Political Science
- Pool Club
  - Pre-Medical Association
  - · The Youth Project
  - Women in Business

We offer many more clubs and societies to suit your interests.





-----

# We perform

### Athletics and Recreation

Our 8,400-square-metre, fully-equipped Campus Recreation and Wellness Centre offers a gym membership, fitness programs, recreational leagues and more. If you're looking for a little competition, our Ridgebacks' teams contend at all levels. Other on-campus activities range from yoga, pilates, boot camps and spin classes, to personal training, intramurals and extramurals. We've got something healthy for everybody.



# Your home away from home

Guaranteed residence for all first-year students who apply by the Monday, June 1 deadline.

#### Residence Living ontariotechu.ca/residence

- · Controlled building access.
- · Double-sized beds in all rooms.
- Game rooms, dance studios and lounges.
- Housekeeping and maintenance services.
- Kitchen facilities, including access to BBQs.
- · Living-learning communities.
- Nightly events to support social and academic needs.
- On-site laundry.
- $\cdot\,$  Residence advisors on each floor.
- Residence Outreach Worker.
- Roommate self-selection.
- Steps from the bus stop.
- TV, cable, phone and high-speed Internet.
- Two residence buildings.

#### Meal Plans ontariotechu.ca/dining

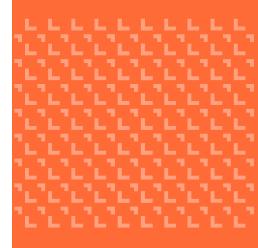
- · All-you-can-eat dining hall.
- Mandatory or optional meal plans.
- Plenty of food options: halal, vegan, vegetarian, gluten-free, dairy-free, etc.
- Popular brand name franchises: Starbucks, Tim Hortons, Pizza Pizza, Smoke's, etc.





#### You'll find a home in Oshawa Oshawa A to Z

- Art galleries
- Barrier-free community
- Concerts
- Diverse dining options
- Entertainment at the Regent Theatre and the Tribute Communities Centre
- Fiesta Week
- Growth and development
   of downtown
- Home of the Oshawa Generals hockey team
- Indigenous lands
- Job fairs
- Key city in Durham Region
- Located close to Toronto
- Multicultural
- Nine public swimming pools
- One of Canada's fastest-growing economies
- Parkwood Estate, national historic site of Canada
- Quiet study spots
- Ranked one of the best places to work in Canada
- Shopping at the Oshawa Centre
- Transportation hub
- Urban growth centre
- $\cdot$  Volunteer opportunities
- Waterfront
- X-Men was filmed at the Parkwood Estate
- Yoga in the park
- Zoo and fun farm



# **Residence floor plans**



Simcoe Village North



South Village (Meal plan required)



Simcoe Village South



Simcoe Village Central



Simcoe Village Quad

# Supports on campus

ontariotechu.ca/studentlife



Your experience with us is about more than attending classes. We provide the supports and connections you need to make your student journey right for you.

Here's a sample of some of the supports available to you on campus:

#### **Academic Support**

- Academic advisors
- · Learning and study skills
- Peer tutoring
- Subject specialists

#### Accessibility

- Academic accommodations
- Technology advising accommodations

#### **Career Readiness**

- Career supports
- · Co-ops and internships
- · Work experience on campus

#### **Peer Support/Community**

- · Community events
- · Digital Community student blog
- · International student supports
- · Indigenous Education and Cultural Services
- Mentoring

#### **Inclusion and Equity**

- Equity education
- · Events and workshops
- · Leadership development
- · Orientation and first-year transition





#### Health and Wellness Services

- Athletic facilities
- Chiropractors
- Counsellors
- Fitness classes
- Gym membership
- · Health insurance plar
- Ice skating
- Indoor running track
- Massage therapists
- Medical doctors
- Mental health counsellors
- Mood walks
- · Pharmacy
- Self-defense classes
- Support groups



# Fees and finances

ontariotechu.ca/fees ontariotechu.ca/safa

Bachelor of Allied Health

Bachelor of Education Bachelor of Health Sciences Bachelor of Science Bachelor of Science in

Bachelor of Science in

**Bachelor of Commerce** 

**Bachelor of Information** 

**Bachelor of Engineering** 

**Computer Science** 

### Tuition

Sciences Bachelor of Arts

Nursing

Education is an investment and we'll help you achieve your dreams. Let's take a look at how much your first year may cost.

#### **Tuition by program**

\$5.983

\$6.101

\$6,340

\$8.088

\$9.031

\$9,390

>>>
then add

#### **Additional fees**

Technology-enriched learning fee	\$130 to \$478*
Ancillary fees/other expenses	\$1,758
On-campus residences	\$3,450 to \$7,950**
Meal plan	\$5,050 to \$5,615***

#### Total average cost

Local students: \$7,871 to \$11,379 Students living in residence: \$16,371 to \$24,944

\*Dependent on program of study.

\*\*Dependent upon room style.

\*\*\*Dependent upon plan.

All fees are based on the 2019-2020 academic year and are subject to change for 2020-2021. For a complete list of tuition and fees, visit **ontariotechu.ca/fees**.



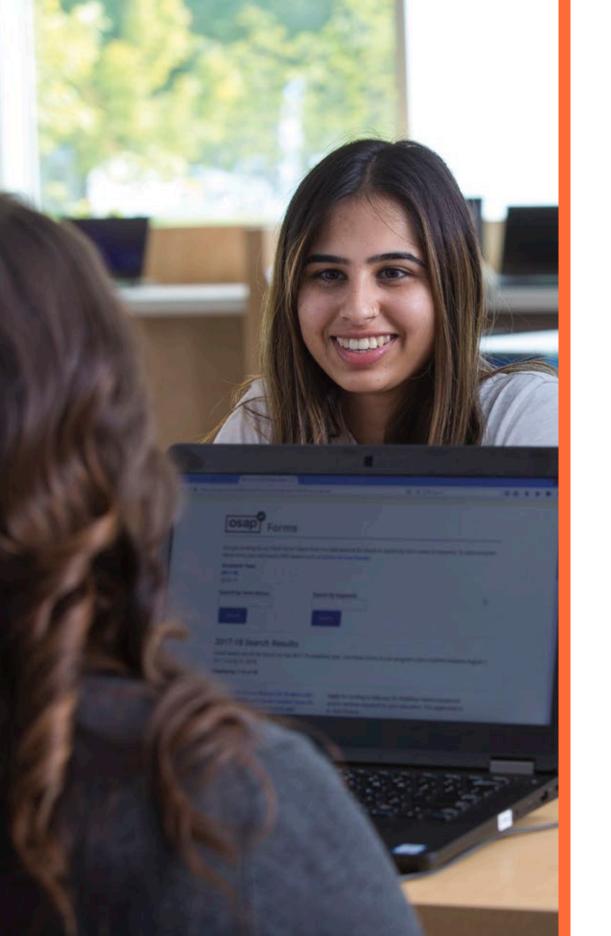
Bachelor of Technology

Technology

During my first year of university, I struggled financially and reached my lowest point of financial stability. I was living on my own, had no savings and student loans were still not enough. I decided to reach out to the Student Awards and Financial Aid office for help. They researched all possible options in order to get me the help I needed, and they provided me with bursaries and gift cards to help me while I got back on track. I am beyond grateful to this team for their constant help and support. I would not have made it through my first year without them!

- LORENA DIAZ GONZALEZ -

Health Sciences (Honours), Class of 2020 Third-year student in the Medical Laboratory Science program



\$1M in donor awards given out in 2018-2019

**60** one-on-one financial advising appointments available per week

**150**<sup>+</sup> on-campus work-study employment opportunities offered each year

**300**+ incoming students receive awards of recognition

**\$9M** from the university to students in the form of nonrepayable assistance

# We create

### Real-world solutions to real-world challenges

Mechatronics Engineering student Hamayal Choudhry created a 3D-printed robotic prosthetic hand for amputees. With a camera built into the palm, the hand uses Microsoft Azure computer vision and machine learning technology to identify objects, and calculate the most appropriate grip for them. The more the hand is used, the more accurate it becomes.

Photo: Michael Wittig and Wear It Berlin, wearit-berlin.com



# **Scholarships**

ontariotechu.ca/scholarships

#### Awards of Recognition

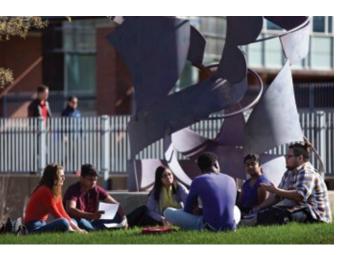
### You've worked hard for your grades. We want to recognize that hard work!

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

\$4,000	95 per cent or higher
\$2,000	90 to 94.9 per cent
\$1,000	85 to 89.9 per cent

We continue recognizing your hard work throughout your university journey with in-course scholarships that range from 1,000 to 3,500.\*

\*Minimum GPA and course load required, and must be returning to fulltime studies. Amounts vary based on GPA and donor contributions.



### **Application-based Scholarships**

- ☑ Applied to Ontario Tech University.
- □ 85 per cent average?
- Exceptional leader?
- □ Active in your community?
- If you checked all the boxes above, we want to hear from you!

#### Chancellor's Scholarship\*\*

One valued at \$36,000 (\$9,000 x four years)

#### President's Scholarship\*\*

Two valued at \$30,000 (\$7,500 x four years)

#### Founder's Scholarship\*\*

Two valued at \$24,000 (\$6,000 x four years)

\*\*One application to be considered for all three scholarships.

#### **FIRST Robotics Canada Scholarship**

One valued at \$12,000 (\$3,000 x four years)

#### Deadline to apply: Friday, February 28, 2020

We determine acceptable academic credentials, grades and prerequisite courses to be used for eligibility. For more information on applications, terms and equal access, visit **ontariotechu.ca/scholarships**.

"

Receiving the President's Scholarship has helped me immensely. I don't have to stress over my tuition fees as most of it is now covered. This allows me to allocate more of my time towards things I love such as my academics, extracurricular activities and getting involved in my community. I'm very thankful for this scholarship and to the university for recognizing me!

#### **AMIR SIDDIQUE**

Science (Honours), Class of 2021 Third-year student in the Biological Science program



# Elevate your ideas to new heights.

We support and encourage students, faculty and staff to get involved in entrepreneurship by following their own interests, participating in a startup team, or taking an entrepreneurial approach to the workplace. We connect entrepreneurs with mentors, practitioners and student startup teams to build and innovate successful ideas.

# Admissions

ontariotechu.ca/admissions

Our programs are unique and so are you! That's why we help you identify which type of applicant you are when applying to our university. Below are just a few types you may fall under, but there are many more. For a full list, visit us at **ontariotechu.ca/applicanttype**.

### **Applicant Type**

#### An Ontario secondary school student (101)

• Received a PIN from your guidance office for the Ontario Universities' Application Centre.

#### Not an Ontario secondary school student (105)

- Already completed your Ontario Secondary School Diploma
- Attending a Canadian out-of-province high school
- International
- Mature

#### Transfer

#### Transfer credit

Transfer credit may be awarded if you have completed Advanced Placement (AP) or International Baccalaureate (IB) courses.

#### AP\*

- Minimum score of four on AP exams.
- · Maximum of 18 credit hours can be granted.

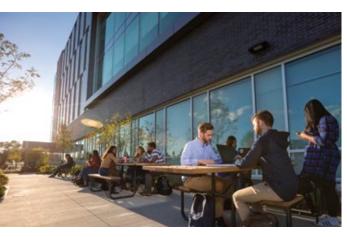
#### IB\*

- · Minimum score of five on higher-level IB examination.
- Maximum of 18 credit hours can be granted.

\*AP and IB transfer credit are not awarded for Engineering programs.

#### **Transfer student**

Credits from post-secondary institutions within and outside of Canada will be evaluated on an individual basis.



### **Special Considerations**

#### **Indigenous admissions policy**

If you've self-identified as Indigenous (Status or Non-status First Nation, Métis and/or Inuit) you may apply to have a separate assessment conducted by our Indigenous Admissions Committee.

To complete the Indigenous admissions consideration form, visit **ontariotechu.ca/indigenousadmissions**.

#### **Equity admissions policy**

If you consider yourself personally or academically disadvantaged for reasons that are beyond your control (e.g. disability, minority status or gender identity), you may apply to have a separate assessment conducted by our Equity Admissions Committee.

To complete the equity admissions consideration form, visit **ontariotechu.ca/equityadmissions**.

# English Language Proficiency (ELP) Requirements

You can satisfy the ELP requirement through **one** of the following:

- Your first language is English.
- You completed the university's English for Academic Purposes program.
- You completed at least three years of full-time study at a secondary or post-secondary institution where the language of instruction is English.\*\*
- You achieved the required proficiency score on one of the English proficiency tests acceptable to the university. See page 61 for test scores.
- \*\* The minimum three-year requirement does not include full-time enrolment in an English as a Second Language program.

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## Apply Now You're one step closer.

#### Wednesday, January 15

Application deadline for current Ontario secondary school students for fall 2020 admission.

#### Friday, February 28

Application deadline for the following

Chancellor's, President's and Founder's, and FIRST Robotics Canada.

#### Wednesday, May 27

Current Ontario secondary school students—who applied by the January 15 deadline-will receive a decision on their

#### Monday, June 1

Response deadline to your offer of admission.

**Residence** applications must be received to guarantee your spot.

#### Friday, June 12

Deadline to pay your \$500 non-refundable tuition deposit.

### **English Proficiency Tests and Scores**

#### CAEL

Minimum score of 70 with no sub-score below 60.

#### **IELTS**

Overall score of 6.5 with no sub-score less than 6.0 (Education and Nursing programs require an overall score of 7.0).

Ontario Tech University is an official IELTS test venue. Registration information—including test dates-can be found on ieltscanada.ca.

#### **MELAB**

Minimum score of 85.

#### **PTE Academic**

Minimum score of 58.

#### TOEFL

Internet-based test (iBT) with a total score of 83 (Education and Nursing programs require a total score of 87) and minimum scaled scores of listening: 20; reading: 20; speaking: 19; and writing: 20. Ontario Tech's TOEFL code is 7178. Paper-delivered results will be reviewed on an individual basis.



# We lead

#### A student community

Our diverse student body continues to lead the way by inspiring our community through equity initiatives, representation at campus events, varsity athletics, peer mentoring and student leadership.

ENER



# **Admissions requirements**

#### ontariotechu.ca/admissions

Program	Ontario Secondary School Diploma (OSSD) graduates	International Baccalaureate (IB) graduates
Faculty of Business & Information Technology		
<b>Commerce</b> (Accounting, Finance, Marketing, Organizational Behaviour and Human Resources Management, Technology Management)	ENG4U and one of: • MHF4U • MDM4U • MCV4U	English and one of: • Mathematical Studies • Mathematics
Information Technology (IT) (Game Development and Entrepreneurship, Networking and IT Security, Technology Management)	ENG4U and one of: • ICS4U • MCV4U • MHF4U • MDM4U	English and one of: • Computer Science • Mathematics
Faculty of Education		
<b>Concurrent Education</b> (apply through your program of choice)	Refer to regular program requirements.	Refer to regular program requirements.
Faculty of Energy Systems & Nuclear Science		
Health Physics and Radiation Science	ENG4U, MHF4U, MCV4U,	English, Chemistry, Physics
Nuclear Engineering	SCH4U and SPH4U	and Mathematics
Sustainable Energy Systems	ENG4U, MHF4U and one of: • MCV4U • SCH4U • SBI4U • SPH4U	English and Mathematics One of Biology, Chemistry or Physics recommended.
Faculty of Science		
Applied and Industrial Mathematics Biological Science (Environmental Biology, Environmental Toxicology, Life Sciences, Pharmaceutical Biotechnology)	ENG4U, MHF4U and two of: • MCV4U • SCH4U • SBI4U • SPH4U • Physics • English, Mathematics a • Biology • Chemistry • Physics	65
<b>Chemistry</b> (Chemical Biology, Pharmaceutical Chemistry)		
<b>Forensic Science</b> (Forensic Biology, Forensic Chemistry, Forensic Physics)		
Integrative Neuroscience		
<b>Physics</b> (Astrophysics, Nanotechnology and Clean Energy)		
<b>Computer Science</b> (Data Science, Digital Media)	ENG4U, MHF4U and one of: • ICS4U • SPH4U • MCV4U	English, Mathematics and one of: • Computer Science • Physics

IB notes

 Mathematics: For Engineering and Science degrees, Higher Level Mathematics is recommended. New IB mathematics courses will also be considered—Mathematics: Applications and Interpretation, and Mathematics: Analysis and Approaches.

· Computer Science: Higher Level is preferred.

• All other prerequisite courses can be presented at the Standard or Higher Level.

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#### Ontario Secondary School Diploma (OSSD) graduates

#### International Baccalaureate (IB) graduates

Faculty of Health Sciences		
Health Sciences (Human Health Science, Public Health)	ENG4U, SBI4U and one of: • MHF4U • MDM4U • MCV4U	English, Biology and one of: • Mathematical Studies • Mathematics
Kinesiology	SCH4U is recommended	Chemistry is recommended
Medical Laboratory Science	ENG4U, SBI4U, SCH4U and one of: • MHF4U • MCV4U	English, Biology, Chemistry and Mathematics
Nursing	ENG4U, SBI4U, SCH4U and one of: • MHF4U • MDM4U • MCV4U	English, Biology, Chemistry and one of: • Mathematical Studies • Mathematics

Faculty of Engineering & Applied Science		
Automotive Engineering		
Electrical Engineering (Smart Grid)	ENG4U, MHF4U, MCV4U, English, Chemistry, Physics and SCH4U and SPH4U Mathematics	
Manufacturing Engineering		
Mechanical Engineering (Energy Engineering)		
Mechatronics Engineering		
Software Engineering (Internet of Things)		

Faculty of Social Science & Humanities		
Communication and Digital Media Studies		English
<b>Criminology and Justice</b> (Criminal Justice; Youth, Crime and Justice)	ENG4U	
Forensic Psychology	ENG4U One of MHF4U, MCV4U or MDM4U is recommended. SBI4U is recommended.	English One of Mathematical Studies or Mathematics is recommended. Biology is recommended.
<b>Legal Studies</b> (Alternative Dispute Resolution, Human Rights Law, Information Law)	ENG4U	English
Liberal Studies		
<b>Political Science</b> (Political Communication; Social Justice, Globalization and Development)		
Psychology (Bachelor of Arts)	ENG4U One of MHF4U, MCV4U or MDM4U is recommended. SBI4U is recommended.	English One of Mathematical Studies or Mathematics is recommended. Biology is recommended.
Psychology (Bachelor of Science)	ENG4U, MHF4U and two of: • MCV4U • SCH4U • SBI4U • SPH4U	English, Mathematics and one of: • Biology • Chemistry • Physics

# Explore your university

#### ontario<mark>tech</mark>u.ca/events

### **Come Meet Us!**

**Open houses** Saturday, October 26, 2019 Saturday, March 28, 2020

### Winter break tours

Saturday, January 11, 2020

#### Transfer Information Night Wednesday, February 19, 2020

March break tours March 16 to 21, 2020

### Tour in person

Tours include academic buildings, student services and many other areas on campus. Residence and athletic facilities are included in the North Oshawa location tours. Find out more at **ontariotechu.ca/tours**.

## **Tour online**

We offer a unique virtual tour for those who can't make it in person. To take yours, visit **ontariotechu.ca/virtualtour**.

#### Check out our mobile app

Interested in our news, events, athletics info, important dates and more? Download Ontario Tech Mobile by visiting ontariotechu.ca/mobile.



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# Campus maps

#### North Oshawa Campus Location





- 1. Campus Ice Centre
- 2. Campus Field House
- 3. Software and Informatics Research Centre
- 4. Clean Energy Research Laboratory
- 5. Campus Corners
- 6. ACE Climatic Wind Tunnel
- 7. Ontario Power Generation Engineering Building
- North Oshawa Library
   Energy Systems and Nuclear
  - Science Research Centre
- 10. Business and Information Technology Building
- **11.** Campus Recreation and Wellness Centre
- 12. Science Building
- 13. Pavilion
- 14. Student Centre
- 15. South Village Residence
- 16. Simcoe Village Residence

#### **Downtown Oshawa Campus Location**



- 2 Simcoe Street South
   Faculty of Education Building
- 2. Faculty of Education
- 3. Regent Theatre

Bordessa Hall
 61 Charles Street Building

6. UOIT-Baagwating Indigenous Student Centre

# **Programs index**

8

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20

#### Business & Information Technology

ommerce Accounting
Finance
Marketing
Organizational Behaviour and Huma Resources Management
Technology Management
nformation Technology Game Development and Entrepreneurship
Networking and Information Technology Security
Technology Management

#### Education

С

In

Concurrent Education Connected Program Consecutive Education -Primary/Junior Consecutive Education -Intermediate/Senior

#### Energy Systems & Nuclear Science

Health Physics and Radiation Science Nuclear Engineering Sustainable Energy Systems

#### Engineering & Applied Science

Automotive Engineering Electrical Engineering Smart Grid Manufacturing Engineering Mechanical Engineering Energy Engineering Mechatronics Engineering

Software Engineering Internet of Things

#### Health Sciences

Health Sciences Human Health Science Public Health Kinesiology Medical Laboratory Science Nursing

#### Science

Applied and Industrial Mathematics Biological Science Environmental Biology Environmental Toxicology Life Sciences Pharmaceutical Biotechnology Chemistry Chemical Biology Pharmaceutical Chemistry

Computer Science Data Science Digital Media

Integrative Neuroscience

Forensic Science Forensic Biology

Forensic Chemistry

Forensic Physics

#### Physics

Astrophysics Nanotechnology and Clean Energy

#### Social Science & Humanities

Communication and Digital Media Studies

Criminology and Justice Criminal Justice

Youth, Crime and Justice

#### **Forensic Psychology**

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Legal Studies Alternative Dispute Resolution Human Rights Law Information Law

**Liberal Studies** 

#### Political Science Political Communication Social Justice, Globalization and Development

#### Psychology

# School of Graduate & Postdoctoral Studies 38

# **5** OntarioTech

2000 Simcoe Street North Oshawa, Ontario L1G 0C5 Canada 905.721.3190 connect@uoit.ca Join the Ridgeback Pack
 /jointheridgebackpack
 /ridgebackpack02

#### ontariotechu.ca

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