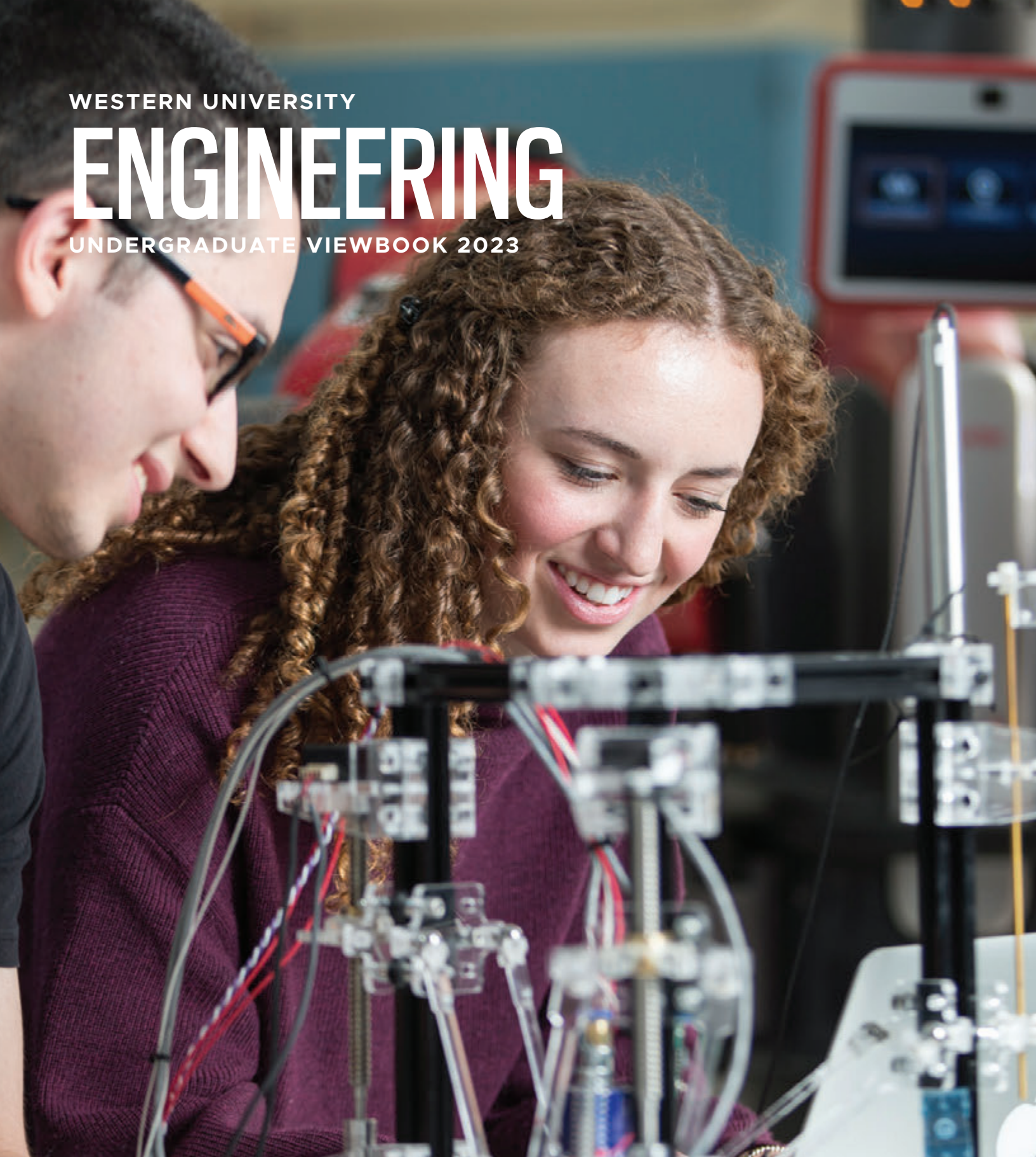


WESTERN UNIVERSITY

ENGINEERING

UNDERGRADUATE VIEWBOOK 2023



Western
Engineering

eng.uwo.ca

Your Degree, Your Way



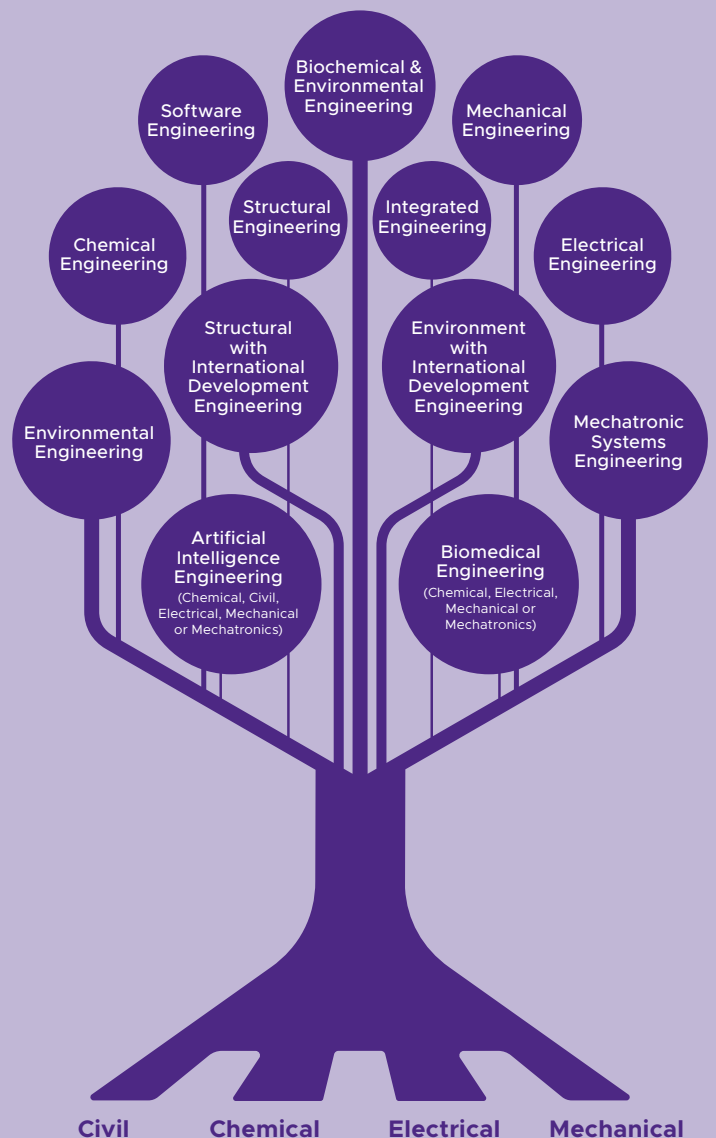
Western Engineering gives students the flexibility to be co-creators in their education through a variety of combined degree programs, the experiential learning opportunities our faculty offers, and our common First Year program.

From our new **Artificial Intelligence Systems Engineering Combined Degree** program to adding **Ivey, Law, Biomedical Engineering**, or countless other options – this next chapter of your life is wide open with possibilities.

It doesn't stop there. With options for short-term and long-term Co-op, as well as participating in a wide variety of student clubs and teams, you will gain both technical and professional skills while you are here with us.

Lastly, we understand that university is a big decision and we want to give you additional time to decide what discipline you would like to study. **Our common First Year program gives you the space to decide what you are most passionate about** so you can direct your future in the coming years, and many of our students do change choices between entering from high school and picking a specific discipline to study at the end of First Year.

We are so excited to have you here next year and welcome you to the Western Engineering family.



Artificial Intelligence Systems Engineering



Gain the skills to use and apply AI algorithms to solve engineering problems.

This is a combined degree program that will be done in conjunction with one of five fundamental engineering programs: Civil, Chemical, Electrical, Mechanical or Mechatronic Systems.

Mathematical and computing fundamentals

Graduates of Western Engineering's Artificial Intelligence Systems Engineering (AISE) program will understand the characteristic behaviour of AI models and be capable of providing accountability in

Professional Engineering environments.

They will develop advanced skill sets to ensure that their models are understood and deployed safely and responsibly, while also being able to evaluate the applicability of their model's predictions.

How is AISE unique?

Western Engineering's AISE program has the advantage of not being a stand-alone program with each student also enrolled in a core engineering discipline. AISE students develop the Artificial Intelligence/Machine Learning (AI/ML) skills/fundamentals through 7+ specialized AI/ML courses that prepare students for emerging careers.

Students enrolled in Western Engineering's AISE program will develop the following skills/foundations:

- + Computing and Software Development
- + Machine Learning and Data Engineering
- + IoT Networks and Systems
- + Signal Processing and System Design

Career Possibilities:

- + Machine Learning Engineer
- + Data Scientist
- + Business Intelligence Developer
- + Software Engineer
- + Robotics Engineer

Scan here for more information:



“I chose the Biomedical Engineering combined degree because I have always been interested in engineering and human biology.

When I found out that Western had this combined degree option where I could combine both subjects I was really interested in, I knew that it was the right program for me. Working in the WearMe Lab with Dr. Trejos and Dr. Sirek has been an amazing experience that I never expected. I have learned so much about biomedical engineering applications in the industries of rural health care. I have been able to apply my knowledge that I learned during the year in my combined degree to help develop new technology in the biomedical engineering industry.”

Jocelyn Whittal

MECHATRONICS SYSTEMS ENGINEERING
AND BIOMEDICAL ENGINEERING STUDENT



BIOMEDICAL ENGINEERING

Design solutions to healthcare challenges

Western's new Biomedical Engineering undergraduate program allows students to earn two degrees in five years – one in Biomedical Engineering and one in a core engineering discipline (Chemical, Electrical, Mechanical, or Mechatronic Systems Engineering). Graduates of the program will be well qualified for engineering positions in the medical device sector and a variety of other sectors, admission to leading biomedical engineering graduate programs, and admission to medical school.

Students will enter the program from the Engineering common first year, develop a solid foundation in their core engineering discipline in Years 2 and 3, complete a Biomedical

Engineering cohort year in Year 4 consisting of interdisciplinary biomedical engineering courses, fundamental biomedical science courses, and nontechnical electives related to healthcare issues, and then complete their core engineering degree and their Biomedical Engineering degree concurrently during Year 5.

Intensive research experience

Students will spend the summer between Years 4 and 5 in either a summer co-op with an employer in the biomedical sector or at a summer research placement, most commonly at Western or one of its affiliated hospitals

or biomedical research institutes. Most students will continue their summer project as their final-year research thesis.

BME Preadmission

Interested students are eligible to apply for possible preadmission to Biomedical Engineering by submitting a supplementary application using the Engineering CONNECT profile.

Scan here for more information:



The Evidence is in: Combined will give you an edge



Countless Opportunities

Great engineering careers are built on leadership and innovation. The most respected companies in the world rely on critical thinking and analytical skills to achieve breakthrough engineering technologies. Leaders in these organizations seamlessly blend engineering and other professional perspectives.

Engineering and Ivey HBA

Addressing today's global, economic, and environmental challenges requires people who are able to find creative yet practical solutions. In just five years, you are prepared to be a technology-proficient leader by combining an Honours Business Administration (HBA) degree at the Ivey Business School with your Bachelor of Engineering Science (BESc) degree.

Honours Business Administration (HBA) at the Ivey Business School is Canada's foremost undergraduate business

program and recognized internationally for the leadership opportunities created for its graduates. Combined with a Bachelor of Engineering Science (BESc) degree, graduates go on to work in nearly every industry, from engineering companies and strategy consulting to finance.

Engineering and Law

Unique in Canada, the combined degree with Western Law allows you to complete a Juris Doctor (JD) with a Bachelor of Engineering Science (BESc) in six years. This program gives you the legal and engineering knowledge and skills to meet industry demands and solve societal problems.

The John M. Thompson Centre for Engineering Leadership and Innovation

The Thompson Centre is Western's hub for engineering leadership and innovation. In partnership with the Ivey Business School,

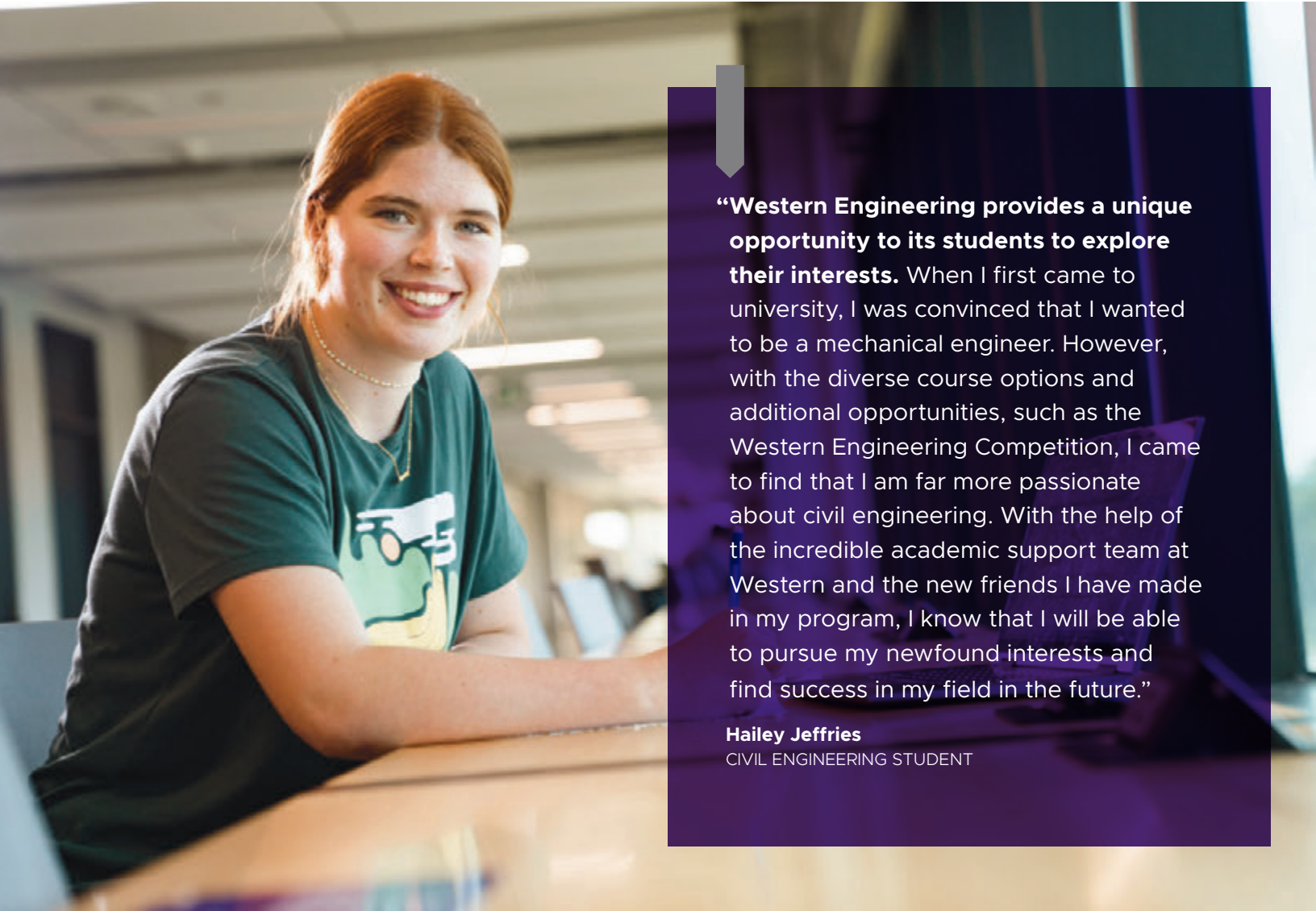
Western Engineering's Thompson Centre immerses students in the development of professional skills to build their leadership voice for communicating the engineering perspective in business decisions.

With certificate programs, in-class experiential learning, design thinking programming, and industry guest speakers, the Thompson Centre helps engineering students lead the ethical pursuit of big ideas, addressing real-world challenges and opportunities.

Engineering and Your Passion

We offer more than 50 other Concurrent degrees involving a major module in faculties such as Science, Music, Social Science or Arts & Humanities so you can pursue all of your passions in life.

Your Future Begins Here



“Western Engineering provides a unique opportunity to its students to explore their interests. When I first came to university, I was convinced that I wanted to be a mechanical engineer. However, with the diverse course options and additional opportunities, such as the Western Engineering Competition, I came to find that I am far more passionate about civil engineering. With the help of the incredible academic support team at Western and the new friends I have made in my program, I know that I will be able to pursue my newfound interests and find success in my field in the future.”

Hailey Jeffries

CIVIL ENGINEERING STUDENT

Build your future

Western Engineering offers you unique possibilities and unparalleled support. You can build your future at Western with co-curricular and experiential learning opportunities, including:

- + Long Term and Summer Co-ops
- + Combined and Concurrent Degrees
- + Certificates
- + International Experiences
- + Leadership Opportunities
- + Exceptional Student Support

Join a club. Complete a Co-op. Go international. The choice is yours.

When you join Western Engineering, you will be provided with the skills and knowledge to become a successful problem solver – prepared to address and find solutions to meet the challenges of a global society. As you start your academic journey towards becoming a Professional Engineer, we will provide you with the foundation you need to excel in your chosen career. You will be given the opportunity to shape your academic experience in flexible and exciting ways, creating paths of study designed to your individual interests and aspirations.

ADMISSION REQUIREMENTS

Ontario high-school students:

- + English (ENG4U)
- + Advanced Functions (MHF4U)
- + Calculus and Vectors (MCV4U)
- + Chemistry (SCH4U)
- + Physics (SPH4U)
- + Plus one other 4U or 4M level course (highest grade is chosen)

Non-Ontario students: please visit welcome.uwo.ca/next-steps



Home Away From Home

Western Engineering provides a strong community environment. When you start your academic journey with us, you will join a cohort of approximately 800 first-year students, with academic counsellors available to help you navigate and succeed through your university experience.

Common First Year

When you start in September, your first-year academic counsellor will have your timetable ready for you. With our common first year, you and all of your first-year classmates will take the same courses. The Business for Engineers course recognizes the importance of a business perspective for engineering practice and creates multiple opportunities for further educational experiences. The Foundations of Engineering Practice course provides an introduction to the overall philosophy and process of design. The remaining courses in first year provide the necessary foundations for the technical courses that you will take in your upper years. Throughout first year, you will have the opportunity to participate in activities to help with your transition into university life. You can join clubs and teams, get to know your first-year classmates and explore our engineering programs in more detail.

Engineering Excellence Admission Program

Choosing an upper-year stream can be stressful and we want you to have options. Which is why **Western Engineering will guarantee your acceptance into the program of your choice** (except Mechatronic Systems Engineering and Software Engineering) after first year if you:

- + have a minimum entrance average of 85%
- + maintain an average of 80% in first year
- + no failures, on a full course load

Living-Learning Community

Living-Learning communities are themed floors where residents who share the same academic faculty, program, or interest live together on the same floor. Engineering has a Living-Learning community in Essex Hall providing students an easy way to meet their first-year engineering peers, access to study groups, community and social events and upper-year mentors.

FIRST YEAR COURSES

- + Calculus for Engineers
- + Linear Algebra for Numerical Analysis for Engineering
- + Business for Engineers
- + Discovering Chemical Energetics
- + Programming Fundamentals for Engineers
- + Foundations of Engineering Practice
- + Physics for Engineers
- + Properties of Materials
- + Engineering Statics

Get Involved

“Western Engineering caters to well-rounded students by offering a wide variety of extracurricular opportunities.”

Becoming involved in clubs, such as the Women in Engineering Club and Engineers Without Borders, was one of the best decisions I made in first year. It allowed me to expand my social circle with like-minded peers and develop both technical and non-technical skills.”

Abby Di Laudo
CIVIL ENGINEERING STUDENT



Western Engineering has an active Students' Council — the Undergraduate Engineering Society (UES). The UES provides a student voice at various faculty meetings, organizes social events, and offers resources to support students.

**Try something new.
Expand your skill set.
Make a difference.**

Every year, more than 500 Western Engineering students participate in faculty-based groups, clubs and teams, as well as University-wide programs, and volunteer opportunities across the City of London. By participating in extracurricular activities, you will develop leadership skills, gain hands-on engineering experience, and build a new network of friends.

Western Engineering is a Team Sport

An engineering degree can sometimes feel like an individual and competitive degree, but Western Engineering creates a different culture.





Team Profile

WE MARS

By designing and building their own rover, WE MARS competes in the European Rover Challenge where their rover completes similar tasks to the rovers on Mars. Additionally, WE MARS prides itself in engaging youth in robotics through FIRST Robotics Competitions and community events by providing mentorship and organizational support.



Club Profile

Women in Engineering

The Women in Engineering Club at Western University is a student group working to provide social and academic support for future and current women students. Created in 1989 to increase the representation of women in Western's engineering program they continue to do so today by organizing speakers, events, and initiatives to help orient women new to engineering and university life.



Co-op Programs

“My Co-op experience at Trudell Medical International has been nothing short of amazing.

I was able to meaningfully contribute to different engineering projects that have helped improve my engineering skills. Throughout my Co-op I have learnt a lot about what my interests are and what areas of engineering I excel in. My favourite part of doing a Co-op was being able to apply what we learn in the classroom onto real life problems. This experience has shaped me to be a better engineering student and I feel more confident in my career path for the future.”

Myeesha Siddique

MECHATRONIC SYSTEMS ENGINEERING STUDENT,
TRUDELL MEDICAL INTERNATIONAL



Put Skills Into Practice

Earn a degree with a ‘With Co-op’ designation by completing a minimum of three co-op terms before the final academic term of your degree. This can be done as a Long Term Co-op of 12-16 months duration between Third and Fourth Year, or over three Summer Co-op work terms between the start and end of your program. You will both earn money, and gain extremely beneficial industry and networking experience.

Long Term Co-op

Gain a competitive advantage over other engineering graduates by working on advanced engineering projects from start to finish during a Long Term Co-op.

- + Co-ops are 12 to 16 months
- + Available prior to your final year of studies
- + Average co-op salary is \$50,000/year

Summer Co-op

Gain valuable engineering and career-related industry experience during the summer months to enhance and build on the skills acquired during your engineering degree.

- + Work terms 4 months in length (May to August)
- + Multiple work terms can be completed
- + Students can start right after their first year!

Career Services Office

Built to support Western Engineering's rapidly growing Co-op program, the Career Services office is designed to make the transition from university to the workforce as stress-free as possible with resources like:

- + Résumé/cover letter review and interview preparation
- + Job search and career planning
- + Professional development workshops
- + Industry and alumni panel discussions
- + Networking events and employer information sessions

WHERE DO OUR STUDENTS WORK?

Aecom
ArcelorMittal
BOS Innovations
Deloitte
Enbridge Gas Inc.
General Dynamics
Land Systems
General Motors

Google
Honda
Husky Energy Inc.
Hydro One
IBM Canada Ltd.
Imperial Oil Limited/
ExxonMobil Companies
Labatt Brewing Company

Linamar Corporation
Magna International
Microsoft
NOVA Chemical Corporation
Ontario Power Generation
RBC
Siemens Canada Ltd.
Stantec Consulting

Suncor Energy Inc.
3M Canada
Toronto Hydro
WSP Canada Inc.
Local, Provincial, and
Federal Government
Agencies
... and many more!

FAST FACTS

2022

AVERAGE
SALARY
\$50K/YR

95%

EMPLOYMENT
RATE WITHIN
2 YEARS OF
GRADUATING

- + Co-op job board exclusive for students participating in our programs
- + Co-ops can be completed with local, national, and international employers
- + Multiple Summer Co-ops or a Long Term Co-op can be done during a student's undergraduate engineering degree
- + Flexible, optional, experiential learning opportunities!

A photograph of two students, a woman and a man, wearing white lab coats and safety glasses. They are in a laboratory setting with various glassware and equipment. The woman is on the left, looking down at something, and the man is on the right, looking towards her.

Programs

CHEMICAL ENGINEERING

Improve everyday living while protecting the environment

Chemical engineers work to innovate, improve lives and address society's growing sustainability concerns. As a Western Chemical engineering student, you will use a multiscale engineering approach to design commercial processes that sustainably transform raw materials, living cells and microorganisms into useful consumer products such as polymers and bio-polymers, medicines, food, and fuels; while at the same time protecting the environment. You will use theory and practice to develop the skills necessary to address global sustainability challenges including Greenhouse Gas mitigation, carbon capture and the production of clean water.

Options

- + Chemical Engineering
- + Biochemical and Environmental Engineering

Career Possibilities

- + Biochemical and Pharmaceutical Development
- + Sustainable Petrochemical and Commodity Manufacturing
- + Food Processing and Production
- + Carbon Capture
- + Energy Conversion, Renewable Fuel Development and Manufacturing
- + Environmental Pollution Control and Remediation

A photograph of two female students wearing safety vests. One student is holding a yellow surveying instrument (a theodolite or similar) and both are looking at it with interest.

CIVIL ENGINEERING

Improve quality of life for people around the world

Civil engineers build and improve communities by providing essential infrastructure, solving environmental problems caused by industrialization and resource consumption, and by mitigating natural disasters. Learning in state-of-the-art Civil engineering facilities, you will take classes such as structural analysis, wind engineering, geotechnical design, international development and environmental engineering. This program prepares you to design and construct challenging structures, improve the environment and quality of life for the future and have a global perspective on development and sustainability.

Options

- + Structural Engineering
- + Environmental Engineering
- + Structural Engineering with International Development
- + Environmental Engineering with International Development
- + Structural Engineering and Smart Cities (AISE combined degree)
- + Environmental Engineering and Smart Cities (AISE combined degree)

Career Possibilities

- + Structural and Infrastructure Engineering
- + Environmental Consulting
- + Water Resources
- + Municipal Engineering
- + Wind Engineering
- + Construction

ELECTRICAL ENGINEERING

Power the future

From the smallest microchip to the largest power station, Electrical engineers harness electrical energy for human benefit. As a Western Electrical engineering student, you will embrace the study and application of electricity, electronics, and electromagnetism. Your knowledge will be applied to fields such as: electronics, digital computers, robotics, power engineering, telecommunications, control systems, and signal processing. Electrical engineering will prepare you to take on the world's power and energy challenges.

Career Possibilities

- + Power Systems
- + Telecommunications
- + Consumer Electronics
- + Biomedical Engineering



INTEGRATED ENGINEERING

Become an innovation leader

Instead of specializing, Integrated engineers work across fields realizing opportunities and implementing practical solutions. In the Integrated engineering program, you will have a broad foundation in engineering fundamentals and problem-solving approaches across different engineering disciplines and develop skills to navigate and manage the interaction between engineering and business. Your knowledge and skills will be suited to participate on and lead interdisciplinary engineering and business teams to seek innovative solutions to significant challenges, including: climate change, renewable energy, environmentally friendly buildings, food and water security, autonomous transportation systems, and much more.

Career Possibilities

- + Engineering-based Startups
- + New Product Introduction and Management
- + Engineering Consulting



Programs

MECHANICAL ENGINEERING

Design a better tomorrow

Mechanical engineers use fundamental engineering concepts and contemporary design practices to develop new devices, materials, processes and systems. As a Western Mechanical engineering student, you will apply the principles of physics and materials science for analysis, design, manufacturing, and maintenance of mechanical systems, automotive and aerospace systems, and robotics. Working closely with faculty supervisors, in your fourth year you will complete a major Mechanical Engineering Design Project developing skills to become a dynamic and capable engineering professional.

Career Possibilities

- + Motor Vehicle and Parts Manufacturing
- + Aircraft and Parts Manufacturing
- + Biomedical Equipment Design
- + Power Generation
- + Petroleum and Process Industry



MECHATRONIC SYSTEMS ENGINEERING

Develop intelligent systems and devices

Mechatronic Systems engineers combine elements of mechanical, electrical, software, and systems design to create smart solutions to everyday problems. As a Western Mechatronic Systems engineering student, you will take core courses in each of these areas alongside Mechatronic Systems engineering courses that serve to connect and expand upon discipline-specific foundations. You will graduate with the skill set to work across disciplines and improve systems in healthcare, aerospace, automotive, robotics and more.

Career Possibilities

- + Robotics and Automation
- + Aerospace
- + Research and Development
- + Controls and Systems Integration


SOFTWARE ENGINEERING

Develop the next big software solution

Software engineering is a systematic and disciplined approach to the design and development of software. It applies technical computer science skills and engineering principles to the creation, operation, and maintenance of software systems. In Western's Software engineering program, you will experience a real-world education approach to allow you to specify, design, implement, and maintain innovative software systems. You will engage in experiential learning opportunities and project-based courses, building software systems, ranging from apps for mobile devices to systems used by world-wide organizations.

Career Possibilities

- + Software Engineer
- + Applications Developer
- + Information Systems Manager
- + Data Science Specialist
- + Video Game Developer
- + Web Systems Developer
- + Cyber Security Analyst

A portrait of Shirley Wang, a young woman with long dark hair, wearing a dark green blazer over a light blue patterned shirt. She is smiling and standing outdoors in front of a building with large windows and greenery.

“I chose the Business/Engineering combined program because I have always loved math and the technical subjects in high school. When I got to university, I enjoyed applying critical thinking in a more “big-picture” approach in business class, ultimately supporting my decision to pursue a well-rounded career that balances technical and leadership skills. I also love to challenge myself, and I found myself learning more everyday in the vigorous engineering and business program. This will shape my future by developing analytical thinking along with innovative problem solving.”

Shirley Wang

SOFTWARE ENGINEERING AND IVEY HBA STUDENT

Internationalizing your Western Engineering experience

Each year, Western Engineering welcomes students from across Canada and from around the world. More than 50 countries are represented in Western Engineering's undergraduate and graduate programs. We are committed to diversity and inclusion by providing a welcoming environment to all students.

**Travel. Learn a new language.
Gain global experience. Help people in need.**

Engineers often work for multi-national companies and face opportunities that require a broader vision, communication across cultures, disciplines and languages, and an understanding of other societies and cultures. There are many paths at Western Engineering to prepare you for global impact.

Global and Intercultural Engagement Honour

Western Engineering students have experienced international engagement by travelling to China, Dominican Republic, England, France, Germany, Ghana, Peru, and other countries.

Once achieved, the Honour will appear on the student's official transcript upon graduation.

Civil Engineering and International Development Program

In this program you will explore the complex societal, environmental, political, and economic issues associated with building safer communities in the developing world. Students can participate in an optional placement opportunity working in developing countries or in-need communities in Canada.

Engineers Without Borders

Engineers Without Borders promotes human development through increasing access to technology to help communities around the world improve their standard of living. Western's branch has a great variety of portfolios, including advocacy, fair trade, youth and public engagement, as well as a fantastic creative team.


International Experiences

You can complete part of your degree overseas by participating in courses with international components. You will have the option to travel and live abroad while pursuing your studies through academic international exchanges.





Shape the Future

A man with a beard and short brown hair, wearing a dark blue patterned shirt, is focused on his work. He is standing in a workshop or lab, looking down at a small electronic component he is holding. In the background, a 3D printer is visible, with a green label that reads "DAVID BOW-IE" on its frame. The printer is printing a black object. The workshop has wooden shelves in the background, filled with various tools and materials. The lighting is warm and focused on the man and his work.

“The Undergraduate Summer Research Award (USRA) allowed me to apply and expand on what I had learned in my coursework and explore other related fields while allowing me to connect with other students and members of faculty.”

Cameron Brooks

ELECTRICAL ENGINEERING STUDENT
ETHERINGTON FELLOW

Cameron's research with Western's Free Appropriate Sustainability Technology (FAST) research group focuses on developing open-source appropriate technology (OSAT) which are technologies that are designed the same as free and open-source software and with special consideration to the environmental, ethical, cultural, social, political, and economical aspects of the community it is intended for. To meet this end, FAST research group employs the use of 3D printing, common off-the-shelf materials, and other open-source tools to create various technologies from healthcare to agriculture to manufacturing. Cameron's current projects include disinfectant production, 3D printing electronics, and waste plastic recycling.



“The USRA program has given me the opportunity to explore my interests in engineering and take on projects in different industries. In 2021 I got to work for Western’s Biomechanical Engineering Research Lab (BERL) on biomedical engineering projects.

This summer I’m working for the FAST research group on open-source electronics for data acquisition. Over the past two summer experiences I have learned a lot about my career interests and my goals after graduation.”

Finn Hafting

MECHATRONIC SYSTEMS ENGINEERING STUDENT
ETHERINGTON FELLOW

Finn’s main goal at Western’s FAST research group this summer was to build and test existing electronic hardware, and design new components of our open-source system we call BREAD (short for Broadly Expandable and Reconfigurable Data Acquisition and Automation Device). BREAD will be used as the backbone for automation control of our bioreactors and pyrolysis reactor. It has also been used to log temperature data for a variety of other projects at FAST.

Research with Impact

At Western Engineering, we conduct research directed towards benefitting society. Our leading-edge research provides the foundation for undergraduate learning and graduate student training. Engineering faculty members are actively involved in projects at the frontier of knowledge. Their expertise is brought to you in the classroom and is applied in industry every day.

As an undergraduate student, you will have ample opportunities to participate in research through the Undergraduate Summer Research Program, that could lead to an Accelerated Master’s Program.

Undergraduate Summer Research Award (USRA) Program

Western Engineering provides opportunities for undergraduate students through various awards to obtain research experience during the summer term. These summer research awards provide financial support for students to gain research experience by conducting research work at the university with one of our world-class faculty researchers. Our programming is designed to ensure that students interested in conducting research will have the opportunity to do so.

Accelerated Master’s Program

Students working on a summer research project have an opportunity to expand their research project to a graduate thesis through the Accelerated Master’s Program. As a part of this program, students complete an undergraduate thesis in their fourth year and start a master’s program after graduation and continue their research. The Accelerated Master’s Program allows you to complete a Master of Engineering Science (MESC) degree in just one year beyond your bachelor’s degree. The MESC program includes a financial package that covers tuition fee and provides a living allowance of at least \$13,000 per year.

Examples of Western Engineering’s leading-edge research areas and facilities include:

- + Fraunhofer Innovation Platform for Composites Research
- + Geotechnical Research Centre
- + Innovation Centre for Information Engineering
- + Institute for Chemical and Fuels from Alternative Resources
- + Northern Tornadoes Project and Northern Hail Project
- + Particle Technology Research Centre
- + WesternWater Centre
- + Wind Engineering, Energy and Environment (WindEEE) Research Facility, including the WindEEE Dome, Boundary Layer Wind Tunnel Laboratory and Three Little Pigs

Innovation Starts Here

Western Engineering students and alumni excel as innovative leaders

“The flexible nature of Western’s engineering program has allowed me to pursue a business opportunity that spawned from an engineering co-op position. My product was validated by Western Baseball and in the engineering labs, and is now the subject of my fourth-year engineering thesis and will be incorporated into my future capstone project.

Mitchell Godkin

BESc '20 IN MECHANICAL ENGINEERING

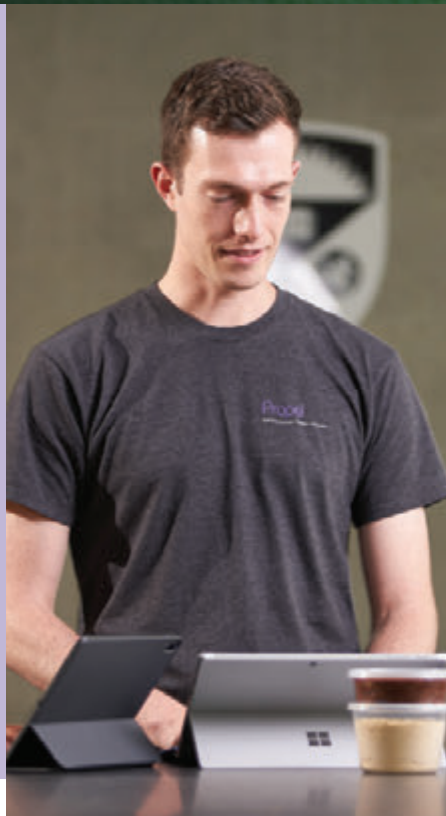
Mitchell Godkin is the creator of Leadbury Bat Co. a premium baseball bat manufacturer. Developed and tested at the General Dynamics lab at Western Engineering, his innovative drying method is reinventing baseball bat manufacturing.



Bring your ideas to life through entrepreneurship, design and technical expertise.

Accelerate your startup

Western is home to the **Morrisette Institute for Entrepreneurship**, a consolidated entrepreneurial ecosystem that brings research, education and programming created at Ivey Business School to students in all disciplines, and to entrepreneurs at every stage of their journey.



“Western has a great entrepreneurial community and many alumni to support students. Taking Integrated Engineering has taught me the foundations of design innovation and the Morrisette Institute for Entrepreneurship has supported me greatly towards earning my first sale. I am looking forward to seeing how I can grow my business so that I can give back along with the other alumni.”

Josh Reding

BESc '19 IN INTEGRATED ENGINEERING/HBA'19

Josh Reding is the founder of MakerBars, an energy bar company that uses a “meal-kit” to reunite customers with their love of cooking while also providing tasty and affordable bars sourced from Canadian partners.

Creating Leaders

A portrait of Lauren Lake, a woman with dark hair, smiling, wearing a dark blue collared shirt. The background is a blurred indoor setting.

Lauren Lake

Civil Engineering / BESc '13

COO and Co-founder at Bridgit

Looking at the then-under-construction Ivey Business School building on Western Road, searching for ideas for a project as part of the Next 36 program that she'd been accepted into in her last year at Western, little did Lauren Lake, BESc '13, know that she was planting the seeds for what is now a highly successful construction technology company. This company that she and her project partner, Mallorie Brodie, HBA'13, founded, Bridgit, supplies building software for large-scale general contractors, with the company's flagship product, Bridgit Bench, now being used by over 25% of the leading contractors in the United States. Bridgit has experienced great success by generating \$25 million USD in revenue to date.

Lauren is a trailblazer who is revolutionizing the construction industry with her company's products and through her female-led organization. She is an icon for women in the industry and the field of engineering. As a leader, innovator and mentor, she has

"Thinking back to 2013, being a Western Engineering student, I don't think I had the luxury to think this far ahead and dream of what the next [ten] years would look like. We never thought we would get to this point, but we're really happy Western was a part of our founding story – it's where everything began." As the inaugural recipient of the Western Engineering Young Alumni Award in 2022, Lauren notes that "now, ten years later, I am receiving this award and it is not something that I could have imagined," she added. "I feel like I've really found my voice and my passion. The work is as challenging as it is rewarding. I am continuously learning and I love that."

earned several accolades including; the top prize at Google Demo Day; named to the TechWeek 100 list of Entrepreneurs; named to the Forbes Manufacturing & Industry 30 Under 30 list and the Best of Canada Forbes Under 30 Innovators list; named one of the fastest growing companies in 2020 by The Globe and Mail and in the top 40 best places to work in Canada.

With novel recruiting practices, Bridgit has been able to attract a diverse team, with people who represent different genders, cultures, and educational backgrounds. Now a team of over 100 employees, Bridgit is not only a female-led company, but boasts unprecedented female representation at every level of the company, from the investors, board members, executives, and team members.

For the next generation of engineers who contemplate following in her footsteps, Lauren's advice is simply ***"to set the bar high and not be afraid to go after something big."***

Scholarships



The Linamar Scholarship for Women in Engineering and Business

This incredible scholarship supports up to 10 female students entering HBA 1 with the intention of completing the dual degree program in Engineering and Ivey (BESc/HBA) with the following:

- + Half the cost of tuition for the remainder of your undergraduate degree
- + Access to a summer co-op position with Linamar Corporation
- + An employment opportunity at Linamar Corporation upon the conclusion of your degree

Scan here for more information:



National Scholarships

National Scholarships are designed to recognize all-round excellence. Scholarships at various levels are awarded on the basis of outstanding academic performance to candidates who demonstrate ability for creative and innovative thought and a passion for the pursuit of learning. They also recognize exceptional achievement in extracurricular activities such as the arts and athletics. A special emphasis is placed on a candidate's commitment to community service through ongoing contributions to school and community life.

Scan here for more information:



Schulich Leader Scholarships

Western is one of the 20 participating university partners in one of the largest and most prestigious scholarship programs in Canada, the Schulich Leader Scholarship program. These scholarships are awarded to entrepreneurial-minded students who show academic excellence and leadership, charisma and creativity, with strong consideration given to students with financial need. For students entering Engineering, the value of the scholarship is \$100,000 over four years.

Scan here for more information:



THE IMPORTANT DATES FOR ONTARIO STUDENTS



Apply Through OUAC

January 12, 2023: The deadline to apply for September 2023 admission for Ontario secondary school students.



Complete any Supplemental Applications

January 12, 2023: The deadline to complete the optional engineering supplementary application, the CONNECT Profile. Visit eng.uwo.ca/future-students/apply-now for more information.

Note: Interested students are eligible to apply for possible preadmission to Biomedical Engineering by submitting a supplementary application using the Engineering CONNECT profile.

Advanced Entry Opportunity (AEO)

Interested in a combined degree with business?

January 13, 2023 is also the deadline to apply for Advanced Entry Opportunity (AEO). Visit www.ivey.uwo.ca/hba/admission/high-school-students



Apply for Scholarships

Scholarships help make the transition to post-secondary more affordable. Here are few scholarships and their deadlines.

Schulich Leader Scholarship Nominee

Submission deadline: **January 31, 2023**

Schulich Leader Scholarship Application

Submission deadline: **February 21, 2023**

(Visit schulichleaders.com for more information)

National Scholarships

Deadline to apply: **February 14, 2023**

E.V. Buchanan Scholarship

Deadline to apply: **February 14, 2023**

FIRST Robotics Scholarships

Deadline to apply: **April 30, 2023**



Connect with Western Engineering

Ask us a question any time at futurewe@uwo.ca or speak to an Engineering Student Ambassador by visiting eng.uwo.ca/future-students

Want to see what campus looks like?

Visit campus by booking a tour at welcome.uwo.ca/what-is-western-like/location



Accept your offer of admission

May 1, 2023: The deadline for non-Ontario secondary school students to accept their offer of admission.

June 1, 2023: The deadline for most Ontario secondary school students to accept their offer of admission.



Accept your Residence Offer

June 5, 2023: The deadline to respond to a residence offer and submit a prepayment to the Residence Admission Office. Visit residence.uwo.ca for more information on residence at Western.



Tuition Deadline

August 2023: The first-year tuition fee deadline is in early August for guaranteed admission into Engineering. Payment after this date will only ensure admission if there is still space in the program.

Non-Ontario students:

Please visit welcome.uwo.ca/admissions





FALL PREVIEW DAY

Sunday, November 20, 2022

SPRING OPEN HOUSE

Saturday, March 25, 2023

For more information about
upcoming events:
[eng.uwo.ca/undergraduate/
future-students](https://eng.uwo.ca/undergraduate/future-students)

INFORMATION FOR PARENTS

eng.uwo.ca/future-students

Join our Network of Extraordinary Alumni

When you graduate from Western Engineering you will join a network of 14,000+ alumni who are working locally, nationally and internationally as business and innovation leaders.

Meet and connect with other Western Engineering alumni at: linkedin.com/school/westernueng

Follow us @Westernueng    

Visit us virtually or talk to a current student at:
eng.uwo.ca/future-students

*Western University sits on the traditional
territory of the Attawandaran, Anishinaabe,
Haudenosaunee, and Leni-Lunaape Peoples.*

HAVE ADDITIONAL QUESTIONS?

UNDERGRADUATE SERVICES

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**Western
Engineering**