

WESTERN UNIVERSITY

ENGINEERING

UNDERGRADUATE VIEWBOOK 2022



Western
Engineering

eng.uwo.ca

Creating Leaders



Matthew Crossan

Mechanical Engineering
BESc '15, MEng '18



Rebecca Mckillican

Electrical Engineering
BESc '02, HBA '02



Alex Kopacz

Mechanical Engineering
BESc '13



Lauren Lake

Civil Engineering
BESc '13



Jason Falbo

Software Engineering
BESc '04

Renault Formula 1, Vehicle Performance Engineer

Joining Western Engineering's Formula SAE team, which fabricates and competes in a formula-style race car, was all Matthew's competitive spirit needed to pursue a dream. In 2017 Matthew bested 12,000 applicants to win a placement with the Infiniti Engineering Academy, a technical partner to Renault Formula 1, where he now works permanently in the United Kingdom as a Vehicle Performance Engineer.

CEO of Well.ca

Rebecca has a particular eye for opportunity. Combining her Electrical Engineering degree with her Business degree from Ivey, she seamlessly transitioned from a New York private equity firm to the CEO of Well.ca. She now runs the e-commerce business that is made up of 200 employees across Guelph and Toronto.

Olympic Gold Medalist, two-man bobsleigh

While a career at NASA, SpaceX, or Tesla was always a long-term dream of Alex's, during his time at Western his more immediate goal was to win a gold medal at the Olympic games. That dream was realized at the 2018 Olympics in PyeongChang.

"You can only be as strong as the group that supports you. I am proud to say there are many of those at Western."

– Alex Kopacz

COO and Co-founder of Bridgit

For Lauren, becoming a business owner wasn't something she envisioned until the distant future, but in 2014, only a year after graduation, she and her business partner launched their technology startup, Bridgit. This construction-project management tool is used on as many as 10,000 different projects at any given time all over North America.

Chief Technology Officer, Mircom Group of Companies

From an co-op with IBM during his undergraduate studies, an MBA abroad, to management experience internationally, Jason Falbo has now taken on the role of Chief Technology Officer at Mircom, the intelligent building solutions company. Jason's responsibilities include the overall technical vision and direction of Mircom's product portfolio.



Rebecca Dean

Mechanical Engineering
BSc '11, BESC '13

Manager, Ride and Show Engineer at Universal Creative

What some consider magic, Rebecca calls engineering. With a talent for creative problem-solving developed at Western Engineering and the goal of creating lasting memories, Rebecca oversees the development of ride and show attractions at Universal from the initial kickoff to ride fabrication and even special effects.



Kundan Joshi

Software Engineering
BESC '04

CEO and Founder of TheAppLabb

At Western Engineering, Kundan learned to think differently and attributes his professors with his “out-of-the-box” style of analysis and divergent thinking. This unique style led to Kundan starting his company TheAppLabb in 2007, which has now moved beyond apps and expanded into artificial intelligence and augmented reality.



Ashlee Posner

Chemical Engineering
BESC '06

CEO of Aromachology

Ashlee doesn't fit the traditional Chemical Engineering mold, instead, she used her knowledge and skills to create one of the most innovative fragrance companies. Along with her business partner, Ashlee started Aromachology, a company that uses science and engineering to customize fragrances based on personality traits.



Craig Follet

Software Engineering
BESC '08, HBA '08

CEO and Co-founder of Universe.com

After beginning his career in consulting, Craig's entrepreneurial spirit pushed him to make a leap into the startup industry. He went on to become the Co-founder and CEO of Universe – the social marketplace for events. The company was acquired by Live Nation in 2015. Craig is now an active advisor and angel investor in the startup community.




Kirsten Westeinde

Software Engineering
BESC '14

Senior Software Developer at Shopify

Starting as a co-op student during her undergraduate studies, Kirsten worked for Shopify on the Internal Tools team. Shortly after completing her Software Engineering degree she returned to Shopify where she now works rebuilding software from the ground up using a number of programming languages.

Your future begins here



“Western Engineering offers a multitude of opportunities that have allowed me to embrace a diverse and enriching university experience and the general first year guided me to find the discipline I am most passionate about.

I have been able to work with academics on incredible research projects in summer research co-ops, attend conferences across the country, and express myself through a wide array of extracurriculars such as the Western EngiQueers and the Western Engineering Musical. Western Engineering makes me feel at home.”

Megan Green

MECHANICAL 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 needs of 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

FIRST YEAR



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 750 first-year students. Professors will know your name and academic counsellors will be 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 in the first-year curriculum recognizes the importance of a business perspective for engineering practice and creates multiple opportunities for further educational experiences while you are at Western. 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 and Saugeen-Maitland 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 with 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 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.



“Western Engineering has a very welcoming and friendly culture where faculty and students are always willing to provide assistance and encouragement. Here at Western, we say that “Engineering is a team sport” and I can confirm that this is true, but it is truly something that you need to experience yourself to understand how valuable it is.”

Abbey Slawich
ELECTRICAL ENGINEERING STUDENT



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.



Programs



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.

Interested students are eligible to apply for possible preadmission to Biomedical Engineering by submitting a supplementary application using the Engineering CONNECT profile. Visit eng.uwo.ca/future-students/apply-now

Both Kiran and Emily conducted Biomedical research on knee orthopedics and knee replacements. Their research helps to develop new research methods for future testing.

Kiran worked on the accuracy of models measuring interactions of knee ligaments and Emily used a model knee joint to test the force control of a knee simulator and motion capability.

Kiran Singh

MECHATRONIC SYSTEMS AND
BIOMEDICAL ENGINEERING STUDENT

Emily Bangsboll

MECHANICAL AND BIOMEDICAL
ENGINEERING STUDENT

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

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

Career Possibilities

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



Programs

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

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

Programs

A photograph showing three students in a computer lab. A young woman with long dark hair, wearing a beige sweater, is smiling and looking at a laptop. A young man with short brown hair is sitting next to her, looking at the screen. Another student with curly blonde hair is partially visible in the foreground on the right, looking towards the other two.

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 Shoshauna Oryema, a young Black woman with long dark hair, smiling and looking towards the left. She is wearing a red patterned top under a black jacket.

“There are few Canadian universities that offer a robust Engineering and Business combined degree program like the one offered at Western University. This program has allowed me to explore my passion for both Chemical engineering and business through eye-opening experiences inside and outside of the classroom. This degree has taught me to approach problems with an analytical and holistic view, an invaluable skill set to employers.”

Shoshauna Oryema
CHEMICAL ENGINEERING
AND HBA STUDENT

The Ivey HBA Advantage

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 business perspectives to confront important problems facing society.

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.

The John M. Thompson Centre for Engineering Leadership and Innovation

Through the partnership of Western Engineering and the Ivey Business School, the Thompson Centre provides programs and activities that support the growth of engineering and innovation interest and expertise at Western. With regular speaking events from industry leaders, certificate options and teaching case studies, the Thompson Centre brings together engineering and business perspectives to create new opportunities.



The Linamar Scholarship for Women in Engineering and Business

This incredible scholarship supports up to 10 students who self-identify as women 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
- + A guaranteed employment opportunity at Linamar Corporation upon the conclusion of your degree

This Scholarship will help you to succeed in school today and provide you with early career experience to go on to be an engineering and business leader of tomorrow.

Combined

The evidence is in: Combined Degrees will give you an edge

“The combined degree of engineering and law gave me the opportunity to pursue an uncommon field of study that I have a great interest in. With this program, I have the ability to use my qualitative engineering skills and communicative legal education to impact the industry in a unique way. Western gave me the chance to integrate my two distinct passions, graduate with a degree that will make me stand out to future employers and get me a job I love.”

Paige Newman

CIVIL ENGINEERING AND LAW STUDENT



Western Engineering offers opportunities that allow you to graduate with two full degrees in less time than it would take to complete them individually.

A combined degree gives you a competitive edge towards a rewarding career. You will have the engineering skills and knowledge to become a successful problem solver who is prepared to find solutions to current and future problems around the world in a traditional engineering career or profession of your choice.

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.

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.

Biomedical Engineering

We offer degrees that combine Biomedical Engineering with Chemical, Electrical, Mechanical or Mechatronic Engineering. These combinations extend core engineering disciplines to the design and analysis of medical devices and the application of engineering to solve problems in medicine and biomedical sciences.

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.

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

MECHANICAL AND MATERIALS ENGINEERING STUDENT

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 Propel 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

INTEGRATED ENGINEERING STUDENT

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.

Co-op Programs



“Through Engineering’s Co-op Programs, I had the opportunity to work in contracting, consulting and government agencies.

This diverse exposure to work experience throughout my early career enriched my understanding of new projects I receive and has provided me with different perspectives. Engineering’s Co-op program provided me with the opportunity to network with peers, mentors and employers in different industries and I’m grateful for the exposure to all the avenues of transportation engineering I have received.”

Amanda Rochon

CIVIL ENGINEERING CO-OP STUDENT, DILLON CONSULTING LTD

Put Skills Into Practice

While completing your engineering degree, you are encouraged to participate in a Long Term and/or Summer Engineering Co-op. You will earn money and gain extremely beneficial work and networking experience.

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 support
- + Professional development workshops
- + Industry and alumni panel discussions
- + Opportunities to connect with employers

Long Term Co-op

Gain a competitive advantage 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 work 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

WHERE DO OUR STUDENTS WORK?

Aecom
Amazon
ArcelorMittal
BOS Innovations
Deloitte
Enbridge Gas Inc.
General Dynamics Land Systems
General Motors
Google
Honda
Hydro One
IBM Canada Ltd.
Imperial Oil Limited/ExxonMobil
Labatt Brewing Company
Linamar Corporation
Magna International
Microsoft
NOVA Chemicals
Ontario Power Generation
RBC
Siemens Canada Ltd.
Stantec Consulting
Suncor Energy Inc.
3M Canada
Toronto Hydro
Trudell Medical
WSP Global Inc.
Local, Provincial, and Federal Government Agencies
... and many more!

FAST FACTS

2021

AVERAGE
SALARY
\$50K/YR

98%

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 and a Long Term Co-op can be done during a student's undergraduate engineering degree
- + Flexible, optional, experiential learning opportunities!

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



“I wanted to be a part of Western’s wind research team because of their reputation worldwide and to work in state-of-the-art facilities such as the Boundary Layer Wind Tunnel. It has been a unique opportunity to broaden my knowledge about how wind affects structures while gaining hands-on experience and improving my skills. The research I am currently working on could potentially contribute to the design of millions of buildings.”

Matthew Vandewiel

CIVIL ENGINEERING STUDENT

By building models and testing them inside Western’s Boundary Layer Wind Tunnel, Matthew’s research is focused on the effect of wind loads on mid-rise buildings.



“I have often considered graduate studies as the next step for me after my undergraduate degree. Summer research is a great way to get a feel for what it would be like to pursue a Master’s Degree or PhD and help me to make an informed decision.”

Sarah From
CHEMICAL ENGINEERING STUDENT

Sarah’s summer research focused on the conversion of biomass materials. Processes that could be used in a “biorefinery” to replace fossil and petroleum feedstocks with plant-based materials.

Western Engineering is committed to making the world a better place. Our academic programming and strategic goals have a strong emphasis on sustainability, improving the health-care system, mitigating the effects of natural disasters, and increasing diversity in the field of engineering.

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. For example, you could start the **Accelerated Master’s Program** during your fourth year of study, allowing you to complete graduate courses in lieu of technical electives, which simultaneously satisfies requirements for your bachelor’s degree and provides a head start on your graduate studies. The Accelerated Master’s Program allows you to complete a Master of Engineering Science degree in just one year beyond your bachelor’s degree.

Summer Research

Western offers multiple programs providing opportunities for undergraduate students to participate

in research over the summer term. Our programming is designed to ensure that all students interested in conducting research will have the opportunity to do so.

You can apply for research fellowships and awards such as the **NSERC Undergraduate Student Research Award**, Deans Award or complete a co-op with one of our leading-edge research centres and institutes, including the:

- + Boundary Layer Wind Tunnel Laboratory
- + Fraunhofer Project Centre for Composites Research at Western
- + Geotechnical Research Centre
- + Innovation Centre for Information Engineering
- + Institute for Chemical and Fuels from Alternative Resources
- + International Composite Research Centre
- + Particle Technology Research Centre
- + Wind Engineering, Energy and Environment Research Institute

Enhance your education



Engineering Leadership and Innovation Certificate

Enhance your undergraduate education with entrepreneurial knowledge and innovation skills by earning the Engineering Leadership and Innovation Certificate. Students who complete this certificate will acquire practical experience in the creation of new products and services, within startups and established companies. Students will learn how business and engineering perspectives reinforce each other to create long-term value and benefit through the implementation of emerging technologies.

Practical Elements of Mechanical Engineering Externship

Western Engineering has collaborated with Fanshawe College to provide you with valuable hands-on experience through an externship. After first year, you can complete a four-month externship to earn an Ontario College Local Certificate and, after completing a second four-month term, an Ontario College Graduate Certificate. Practical courses include machining, welding and metrology, plus mechanical engineering skills. This externship complements your technical knowledge with hands-on experience.

International Learning Award

At Western, the world is your classroom. Every student with a cumulative average of at least 70% with a full-time course load at the end of the most recently completed term will be eligible to receive a \$1,000 award to help complete an international learning experience.

THE IMPORTANT DATES FOR ONTARIO STUDENTS



Apply Through OUAC

January 13, 2022: The deadline to apply for September 2022 admission for Ontario secondary school students.



Complete any Supplemental Applications

January 13, 2022: 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** 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 2022**

Schulich Leader Scholarship Application

Submission deadline: **February 2022**

Visit schulichleaders.com for exact dates

National Scholarships

Deadline to apply: **February 14, 2022**

E.V. Buchanan Scholarship

Deadline to apply: **February 14, 2022**

FIRST Robotics Scholarships

Deadline to apply: **April 30, 2022**



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 virtually by going to welcome.uwo.ca/what-is-western-like/location



Accept your offer of admission

April 2022: The deadline for non-Ontario secondary students to accept their offer of admission.

June 2022: The deadline for most Ontario secondary students to accept their offer of admission.



Accept your Residence Offer

June 3, 2022: 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 2022: 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



Join our Network of Extraordinary Alumni

When you graduate from Western Engineering you will join a network of 13,000+ 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](https://www.linkedin.com/school/westernueng)

Follow us @Westernueng [f](#) [t](#) [i](#) [in](#)

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

**HAVE ADDITIONAL
QUESTIONS?
CONTACT US!**

UNDERGRADUATE SERVICES

Spencer Engineering Building
Room 2097

Western University
London, ON CANADA
N6A 5B9

519.661.2130

futurewe@uwo.ca
eng.uwo.ca



**Western
Engineering**