



GRADUATE STUDIES VIEWBOOK



Western
Engineering

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MESSAGE FROM THE ASSOCIATE DEAN, GRADUATE AND POSTDOCTORAL STUDIES

Western University and the Faculty of Engineering are committed to providing you with the best learning experience at a leading Canadian research institution. Ranked among the top 1 per cent of universities in the world, Western is an academic institution recognized for leadership in education, research, and healthcare.

When you join Western Engineering for your graduate studies, you will join a cohort of approximately 750 graduate students, 130 faculty members and 120 staff. We are dedicated to providing outstanding support, access to state-of-the-art laboratories and research facilities, and a learning experience like no other.

Please read the enclosed information and visit our website eng.uwo.ca/gradstudies to learn how you and your research interests can find a place in our close-knit community of extraordinary engineers.

Sincerely,

A handwritten signature in black ink, appearing to read 'Greg Kopp'.

Greg Kopp

Associate Dean, Graduate and Postdoctoral Studies
Professor, Civil & Environmental Engineering and Mechanical & Materials Engineering
Faculty of Engineering, Western University

ENGINEERING BY THE NUMBERS

Where do our students come from?



Who are our students?



327
Domestic
Students



460
International
Students

Top 5 intake countries



Canada



China



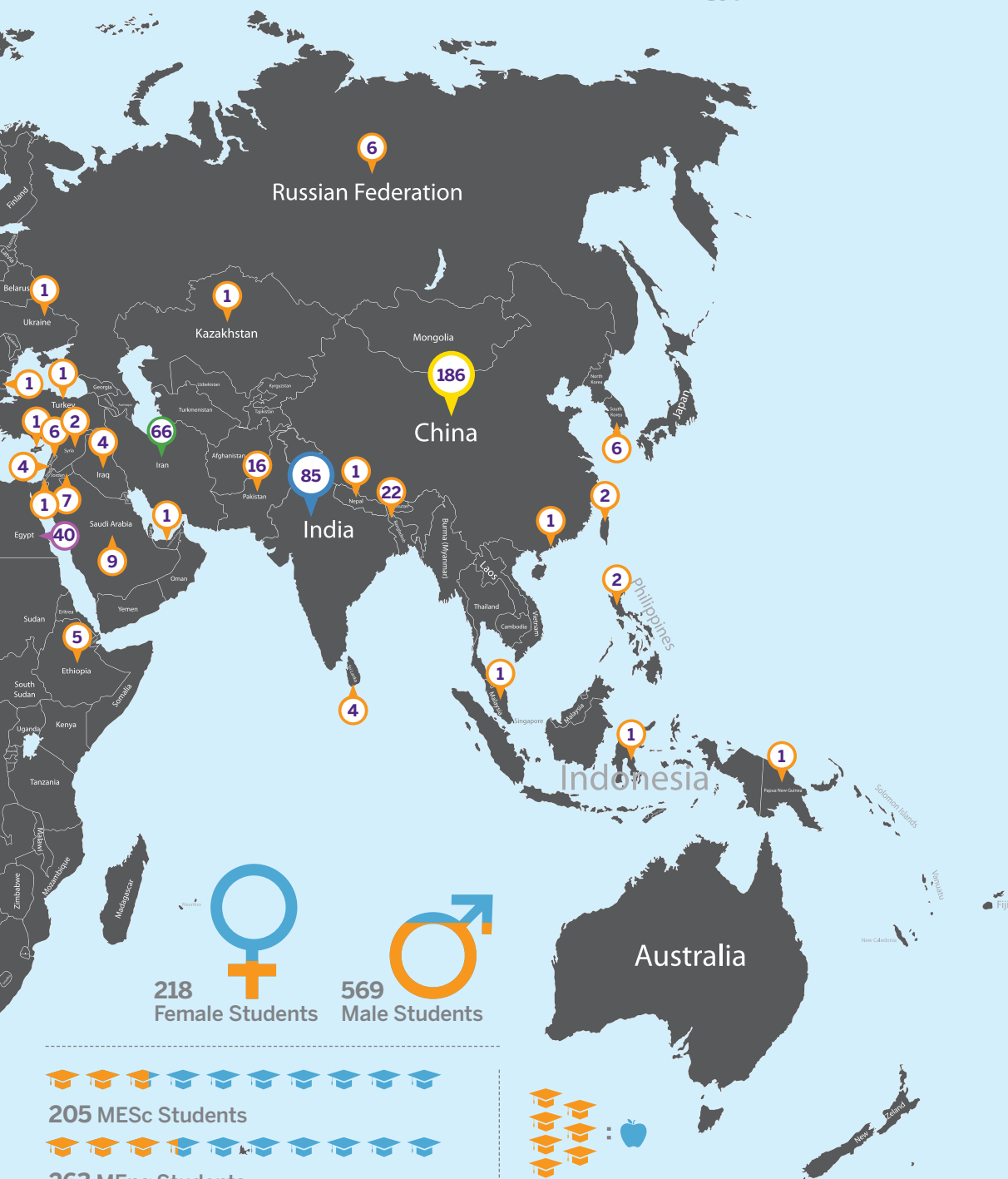
India



Iran



Egypt



218
Female Students

569
Male Students



205 MSc Students



263 MEng Students



319 Doctoral Students



7:1 Research
Student: Faculty
Member Ratio

STUDENT LIFE

FUNDING YOUR DEGREE

THE WESTERN ENGINEERING DIFFERENCE

FINDING YOUR DEGREE

APPLYING

LONDON, ONTARIO

With a diverse population of more than 380,000, London is an educational, cultural and economic hub of southwestern Ontario.

London offers big city excitement with a small town feel. It's a city that knows how to have fun and make everyone feel welcome.



Shopping

From the unique, independent retailers along Richmond Row and in Wortley Village to the trendy stores in suburban shopping malls, London is a great place to shop.

Dining

From intimate cafés to pubs to fine dining to walk-up souvlaki stands, London offers it all. London has an eclectic mix of chefs bringing the hottest culinary trends to the city. Foodies will also enjoy exploring the locally produced offerings at Western's Farmers' Market, the Covent Garden Market or the Masonville Farmers' and Artisans' Market.

Recreation

Affectionately called the Forest City, London boasts an extensive trail system for walking, running, biking or inline skating. Tree-lined trails run along the Thames River – right into Western's campus. Winter sports can be enjoyed at London's Boler Mountain, while indoor and outdoor ice rinks are a popular choice for skaters and hockey players. In the summer, Londoners take a short drive to Grand Bend (Lake Huron) or Port Stanley (Lake Erie).

Culture

London is home to a thriving creative community, from the professional offerings of the Grand Theatre and Museum London, to countless other museums, community ensembles, theatre troupes and specialty galleries.

Festivals

Londoners love to celebrate diversity. Our city is home to numerous festivals year round including Sunfest, Home County Music and Art Festival, and Pride London Festival.

Getting Here

London is easily accessible by car, bus, train, or plane. The 401, a 400-series highway that stretches from Windsor to Québec, brings you directly to our city's edge with easy access to campus from three different highway exits. Via Rail and Greyhound have terminals downtown, and WestJet, Air Canada, and United Airlines fly out of the London International Airport on a regular basis. The London airport code is YXU.

Travelling Within London

Every full-time graduate student is provided with a London Transit bus pass from the Society of Graduate Students (SGS). Numerous stops are available throughout London and Western's Main Campus. Taxis and limousine services are available 24-hours a day for your in-town and out-of-town travel needs.



Discover London's spirit: londontourism.ca



“At Western, one can have an opportunity to work with students, staff and faculty members from different parts of the world which is a wonderful experience as an international student.”

Abiy Melaku, PhD, CEE
(Wind Engineering)
Trillium Scholar

FUNDING YOUR DEGREE

Financial Support

Western Engineering offers financial support for eligible research-based (PhD and MEng) graduate students who achieve and maintain a minimum average of 78 per cent at the time of admission and throughout their course of study at Western. Financial support is provided through research grants, contracts, scholarships, and teaching assistantships.

	Minimum Stipend per Year (+ Tuition)
Master of Engineering*	\$ 0
Master of Engineering Science	\$ 13,000
PhD (Pre-comprehensive examination)	\$ 13,000
PhD (Post-comprehensive examination)	\$ 14,000

** MEng students are not provided financial support.*

Scholarships

As one of Canada’s leading research-intensive universities, we place great importance on helping you finance your education. While at Western, you will want to devote your full energy to the successful completion of your studies, so we want to ensure that stable funding is available to you.

Western Engineering students are very successful securing national and provincial scholarships including Vanier Canada Graduate Scholarships and Ontario Trillium Scholarships. Please visit our website for a full list of scholarships available and our recent award recipients.

For more information about funding opportunities, please visit:
eng.uwo.ca/gradstudies/funding

“I have been able to present research at conferences throughout Canada, as well as pursue my studies at an international collaborating laboratory in Aachen, Germany. This, in combination with an excellent research program at Western Engineering, made the decision to study at Western a very easy one.”

Garret Munch, PhD, CBE
(Biochemical Engineering)
Ontario Graduate Scholar and Douglas Muzyka International Research Fellow



STUDENT LIFE

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THE WESTERN ENGINEERING DIFFERENCE

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APPLYING

THE WESTERN ENGINEERING DIFFERENCE

Western Engineering has numerous opportunities to support you through your graduate degree, regardless of the direction you wish to take!

Professional Development

Western Engineering is committed to helping you excel in your career, wherever that may take you.

For students furthering their education to support a career in industry, Western Engineering offers a suite of courses designed to grow your business, communication, project management, and entrepreneurial skills. Courses are offered during the summer term as short courses that appear on your transcript.

Students interested in a career in academia have the opportunity to participate in programming designed to help create strong instructors. The Faculty of Engineering has collaborated with the Faculty of Education to create a Graduate Certificate in Teaching that focuses on the skills you need to teach in the STEM (science, technology, engineering and math) fields.

For more information about professional development opportunities, please visit: eng.uwo.ca/gradstudies/current/professional_development.html

International Research Opportunities

Our students participate in research activities not only on our campus, but all over the world. Students take part in programs like Mitacs Globalink as a way of experiencing a different culture while furthering their research.

Opportunities with Industry

Western Engineering believes in not only providing a cutting-edge research intensive program, we also believe in linking qualified studies with industry partners to help students connect with potential future employers while seeing their research have a real-world impact.

For more information, please visit: eng.uwo.ca/gradstudies/funding/internship.html

“Business Acumen was a turning point for my career as an Engineer and Entrepreneur. I have always been interested in inventing and product development but I didn’t know how to take my ideas from the lab to the market. The business world seemed too complex and intimidating for me to enter. The crash course in high-level business topics using the Ivey case method allowed me to be more confident when creating a business plan. Without Business Acumen my company, Pascal Press, would not exist.”

Alan Kalbfleisch, MEng, MME
(Thermofluid Engineering)



“When I came to Western, I had no idea where my degree would take me. A Mitacs Globalink Internship in India and a teaching assistantship in Europe have opened my eyes to the world of opportunities that my MEng has presented me with.”

Jenna Skiench (MEng, CBE)
(Environmental and Green Engineering)
Mitacs Globalink Recipient



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DEGREES

Our students work collaboratively with professors, fellow students, and technicians to discover and develop innovative engineering solutions that impact communities locally, nationally, and internationally.

Whether you are interested in a degree that is course based – Master of Engineering (MEng) – or research based – Master of Engineering Science (MESc) – or a PhD – Western Engineering has the program for you.

MASTERS

Master of Engineering (MEng) or Master of Engineering Science (MESc)

	MEng	MESc
Duration	1 year	2 years
Course Requirement	10 courses*	4 courses
Supervisor Required	No	Yes
Research Intensive	No	Yes
Professionally Focused	Yes	No
Thesis Required	No	Yes
Part-Time Option	Yes**	No
Funding Provided	No	Yes

* MEng students may have the option to participate in a research project. The research project is supervised by a faculty member over two academic terms, and counts as 2 graduate courses.

** Students wishing to enroll as Part-Time student must provide proof of full-time employment at the time of admission to qualify for Part-Time studies.

Master of Engineering (MEng)

The MEng degree will provide you with the opportunity to improve your theoretical and practical skills. The flexibility of the program enables you to be enrolled in courses directly related to your career in different fields of engineering.

Master of Engineering Science (MESc)

The MESc degree helps you advance your knowledge in a particular field, foster your intellect, and enable you to apply your research to the benefit of society.

DOCTORAL

Doctor of Philosophy (PhD)

The Doctor of Philosophy in Engineering (PhD) program is a thesis-based PhD research degree. This program is offered to applicants who hold a Master’s Degree in a related field.

When you complete a research degree at Western Engineering, you will have the opportunity to develop new technologies, techniques, systems and devices. At the end of your journey, you will have the opportunity to apply your knowledge down an academic path or an industrial path. The choice is yours.



“The MEng program really helped me make the tie between academics and working in the industry, with its specialized courses really letting me narrow down my focus into the areas of electrical engineering that I was truly passionate about. Not only has this program been beneficial academically, but the programs unique cultural diversity has allowed me to develop friendships as well as network connections worldwide.”

Hailey Slamka, MEng, ECE
(Power Systems Engineering)

PROGRAMS



Biomedical Engineering

eng.uwo.ca/biomed
519.661.4288
bmegrad@uwo.ca

Areas of Specialization

- Biomaterials
- Biomechanics
- Imaging
- Robotics

Degree Options:

☐ MEng ☒ MEng ☒ MSc ☒ PhD



Chemical and Biochemical Engineering

eng.uwo.ca/chemical
519.661.2131
cbegrad@uwo.ca

Areas of Specialization

- Biomaterials and Biochemical Engineering
- Environmental and Green Engineering
- Macromolecular and Materials Engineering
- Particle Technologies and Fluidization
- Reaction and Process Systems Engineering
- Water and Energy

Degree Options:

☒ MEng ☒ MSc ☒ PhD



Civil and Environmental Engineering

eng.uwo.ca/civil
519.850.2943
civilgrad@uwo.ca

Areas of Specialization

- Environmental and Water Resources
- Geotechnical and Geoenvironmental
- Structural and Infrastructural
- Wind Engineering and Environmental Fluid Mechanics

Degree Options:

☒ MEng ☒ MSc ☒ PhD



Electrical and Computer Engineering

eng.uwo.ca/electrical
519.661.2111, ext. 88310
ecegrad@uwo.ca

Areas of Specialization

- Applied Electrostatics and Electromagnetics
- Biomedical Systems
- Communication Systems and Data Networking
- Microsystems and Digital Signal Processing
- Power Systems Engineering
- Robotics and Control
- Software Engineering

Degree Options:

☒ MEng ☒ MEng ☒ MSc ☒ PhD



Mechanical and Materials Engineering

eng.uwo.ca/mechanical
519.850.2939
mmegrad@uwo.ca

Areas of Specialization

- Mechanical Engineering
- Automation Technologies and Systems
- Materials and Solid Mechanics
- Thermofluids

Degree Options:

☒ MEng ☒ MEng ☒ MSc ☒ PhD

COLLABORATIVE PROGRAMS

Master of Engineering – Ivey MBA Dual Degree

eng.uwo.ca/gradstudies/future/programs/MBA_MEng.html | 519.611.2111, ext. 81134 | we-researchandgrad@uwo.ca

Ivey and Western Engineering have collaborated to offer a unique program, combining two recognized degree programs, to propel your career to the next level.

This one-of-a-kind program allows students to enhance technical knowledge through the Master of Engineering courses while exploring and developing business expertise and participating in the Ivey MBA program.

Degree Options: ☒ MEng ☐ MEngSc ☐ PhD

Advanced Design and Manufacturing Institute (ADMI)

admicanada.ca | 519.611.2111, ext. 81134 | whitney.barrett@uwo.ca

The ADMI vision is to create a new generation of Canadian design and manufacturing engineers with the ability and mindset to propel Ontario Industry into a world-leadership position. The collective resources of the partner universities and industry are leveraged to provide participants with access to an integrated program of world-class technology, expertise and experience, leading academic training, together with innovative technology applications, experiences and best business practices from some of Canada's leading companies.

Degree Options: ☒ MEng ☐ MEngSc ☐ PhD

Engineering in Medicine

eng.uwo.ca/gradstudies/future/programs/medicine | 519.661.2111, ext. 88452 | enginmed@uwo.ca

Combining expertise from the departments of Chemical and Biochemical Engineering (CBE), Electrical and Computer Engineering (ECE), and Mechanical and Materials Engineering (MME), the Engineering in Medicine MEng program offers qualified engineering graduates (or equivalent) the opportunity to better understand the role of engineers in modern medicine.

Degree Options: ☒ MEng ☐ MEngSc ☐ PhD


University Network of Excellence in Nuclear Engineering (UNENE)

uneneca/education | 519.611.2111, ext. 81134 | unenemeng@uwo.ca

The University Network of Excellence in Nuclear Engineering (UNENE) was created as a partnership between industry and universities, which has grown to include twelve universities across Canada.

The UNENE MEng degree is designed to provide practicing engineers the enhanced knowledge, tools, technology, as well as business and management skills, necessary to remain at the forefront of their profession.

Degree Options: ☒ MEng ☐ MEngSc ☐ PhD



“I plan to use my practical work experience from construction management as well as the design knowledge and finance skills gained during the joint MEng-MBA to positively contribute to both profitable and sustainable projects.”

**Evan Reidel, MEng-MBA Dual Degree
(Structural Engineering)**

APPLYING TO WESTERN

Complete the Online Application

(grad.uwo.ca)

- ❑ A scanned copy of all academic records
- ❑ 2-3 references (at least one should be academic)
- ❑ Proof of English Language Proficiency (if applicable)

Don't Forget to:

- ❑ Pay the Application Fee (\$100 CAD) and submit your application
- ❑ Check with the department to ensure you have provided all required documentation

Important Reminders

Research Degree applicants: You are required to contact potential supervisors.

MEng Degree applicants: Please contact the department once your application has been confirmed complete.

Admission

The graduate program admission standards and practices at Western Engineering are unique to each program. Certain programs may go through an interview process before they make their decision, and applicants will be contacted by the program administration for an interview. If your program of choice does not require an interview process, offers of admission will be sent after all applications are reviewed.

If admitted, submit all outstanding documentation to Western's School of Graduate and Postdoctoral Studies.

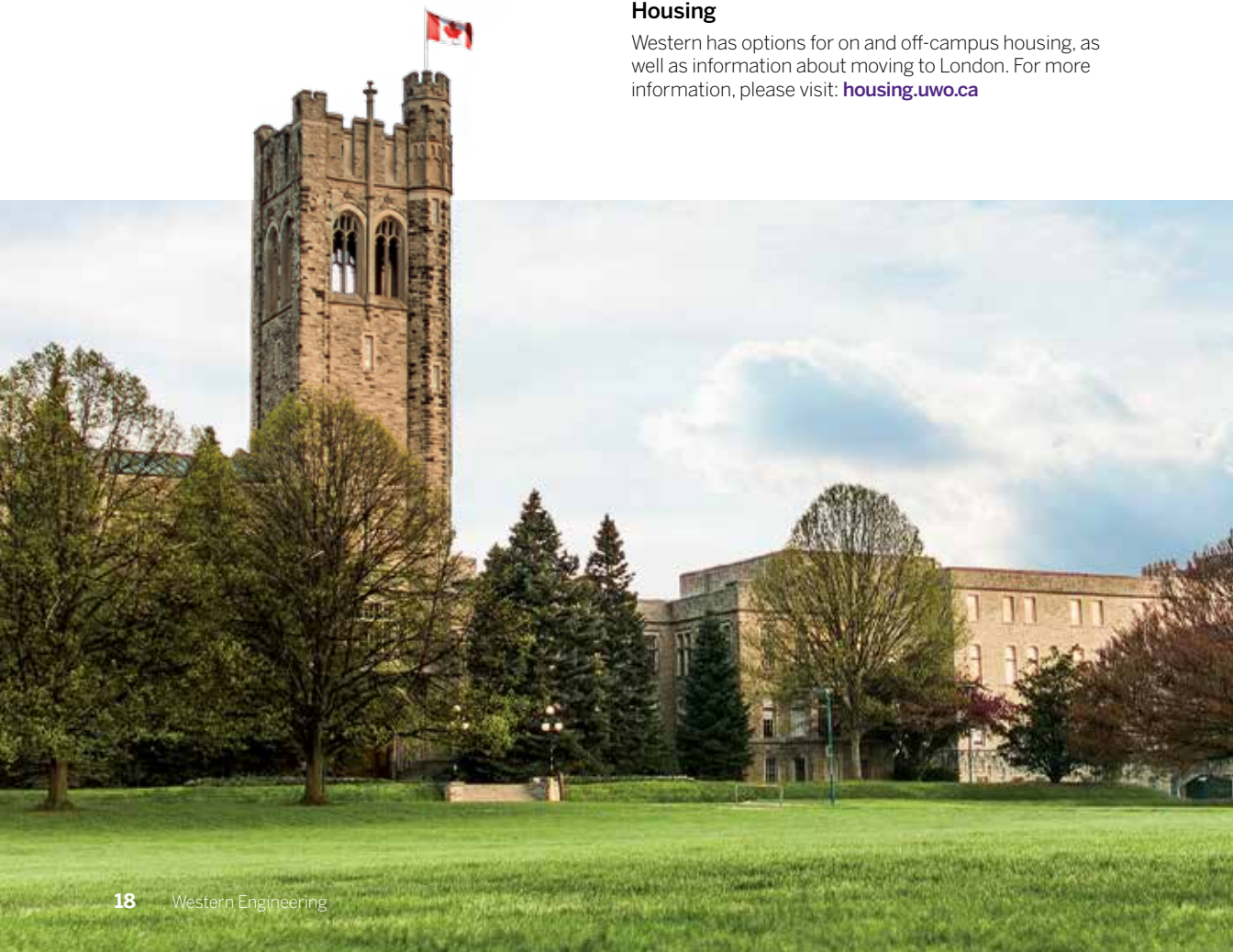
A list of outstanding documentation will be included with your official offer of admission. All students must submit official transcripts at the time of admission.

Plan your arrival

All new students must be on campus for the start of term. Students wishing to visit campus before starting their degree can contact the department Graduate Coordinator to make arrangements for their visit.

Housing

Western has options for on and off-campus housing, as well as information about moving to London. For more information, please visit: housing.uwo.ca



WHY STUDY AT WESTERN ENGINEERING?



Kyle Fricke (PhD, ECE)

"I chose to study at Western Engineering because of the people, facilities, and collaborative opportunities. The ability to study under world-class researchers in state-of-the-art facilities is second to none. Western Engineering offered great opportunities for collaboration with both academic and industry partners. I collaborated with a local industrial partner to complete my graduate studies and gained valuable business and engineering skills. Western Engineering was an excellent choice for me both personally and academically. The professors, administrative staff, and students allowed me to grow as a person and perform world-class research in state-of-the-art facilities. I would not have chosen any other university to complete my graduate studies."



Ainsley Inglis (MEng, CEE)

"As part of exploring options for graduate school, I contacted professors at Western who were involved in research that I found interesting. These professors happened to be connected through the research group, RESTORE. After meeting with these professors and learning of the research opportunities within RESTORE, I knew I wanted to be involved in them. I felt that the research and graduate program here fit what I wanted to get out of my master's degree. Specifically, I knew the opportunity to be involved in collaborative industry-based research would give me the chance to gain experience valuable to me especially as I begin my career after graduating."

I have had so many opportunities to gain valuable experience and knowledge while in the supportive environment at Western. Working on collaborative industry-based research has truly been a great learning experience that I know will be directly applicable to my future career."



Chenguang Yang (MEng, MME)

"Western University is one of the best universities in Canada. After my Bachelor's study, I realized a further degree is highly preferable and I found Western Engineering is the place for challenge and creativity."

My program combines theoretical and practical knowledge together. Studying at Western gives me a lot of advantages; help sessions, résumé editing, and mock interviews help me to improve my job-searching skills."



Emily Lalone (PhD, BME)

"I am most passionate about employing a multidisciplinary approach to solving complex biomechanical problems and ultimately improving joint function and reducing pain and disability."

Before entering graduate school, my best advice would be to think of potential job opportunities you want to pursue after graduate school (industry, academia)."

STUDENT LIFE

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APPLYING

Graduate Studies

Western Engineering
Spencer Engineering Building, Room 2079
London, ON N6A 5B9

519.661.2111, ext. 81134
we-researchandgrad@uwo.ca
eng.uwo.ca/gradstudies/



**Western
Engineering**

