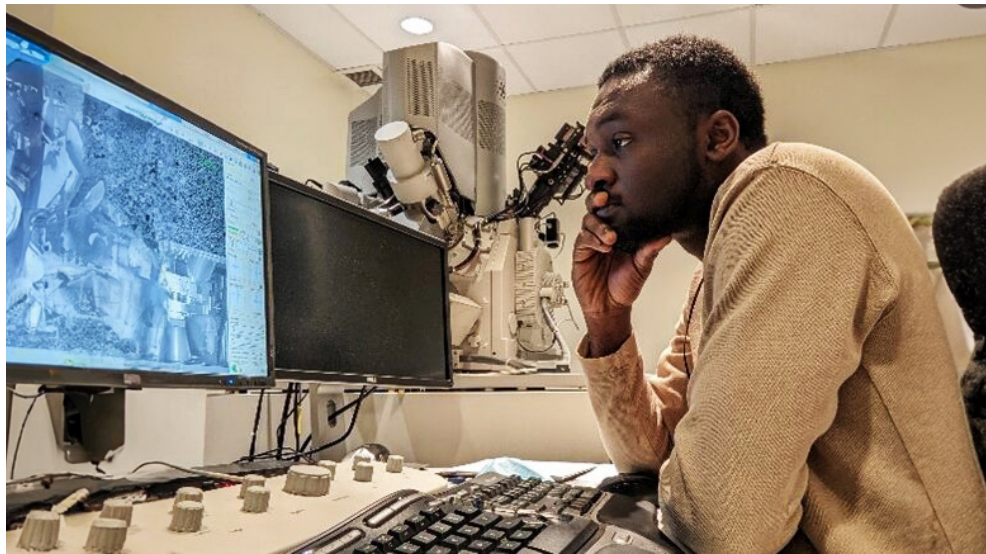




GRADUATE PROGRAMS IN

Mechanical Engineering



Discover Mechanical Engineering at Lassonde.

Are you passionate about cutting-edge research and development of new technologies in energy, manufacturing, materials, biomedical, aerospace, robotics and automotive sectors?

In our graduate program, we develop and apply a diverse range of knowledge to engineer mechanical systems for the well-being of humankind and the environment. Big ideas and possibilities drive us toward making the world a better place.

Fast Facts:

481

Graduate Students at
Lassonde

91

Graduate Students in
Mechanical Engineering

21

Mechanical Engineering
Faculty Members

Program Information

MASc in Mechanical Engineering

Length:

Full-time: 2 years Part-time: 4 years

Components:

Coursework & Thesis

Admissions Requirements:

- Completion of a 4-year bachelor's degree from a relevant engineering (e.g., mechanical engineering, material engineering, or electrical engineering) or sciences (e.g., physics, chemistry, or biology) program.
- Minimum (B-) GPA (Engineering degree) or minimum (B) GPA (Non-Engineering) in each of the past two years of undergraduate studies.

PhD in Mechanical Engineering

Length:

Full-time: 4 years Part-time: 6 years

Components:

Coursework, Milestone Exam & Dissertation

Admissions Requirements:

- Completion of an MASc degree in Mechanical Engineering at York University, conferred by a relevant engineering (e.g., mechanical engineering, material engineering, or electrical engineering) or sciences (e.g., physics, chemistry, or biology) program.
- Minimum (B+) GPA (Engineering degree) or minimum (A-) GPA (Non-Engineering degree) in each of the past two years of graduate studies.

this is
Lassonde



S.2
Ep.2



Highlighting the accomplishments of Black Scientists and Engineers with Solomon Boakye-Yiadom

Solomon Boakye-Yiadom, an associate professor in the Mechanical Engineering department at Lassonde, tells us all about his research into materials and structures before diving into a discussion about the equity, diversity and inclusion work being done at Lassonde and in his lab to highlight the contributions and accomplishments of Black scientists and engineers. He also tells us how he's inspiring youth from underrepresented communities to pursue STEM.

Listen now:



Research Areas/Strengths

You will get an exceptional opportunity to work with world-class award-winning investigators and up-and-coming research stars in the department. This practice naturally results in our graduate students disseminating their scholarly works at international conferences and top journals and securing industrial, governmental and academic positions in their respective fields.

In addition to providing you with exceptional scientific and technological experiences in Mechanical Engineering, we have created an exciting opportunity for our students to receive complementary education in areas they are passionate about (e.g., commercialization, intellectual properties, engineering education), which will provide you with additional “soft skills” to make you successful in your transition from graduate school to the workplace.

You will have the opportunity to conduct research in the areas of:

- Bioengineering and Microfluidics
- Biomedical Optics
- Engineering Design and Analysis
- Heat Transfer and Thermofluids
- Mechanics of Interfaces
- Mechanics of Solids
- Micro and Nano-Scale Transport
- Multifunctional and Advanced Materials
- Robotics and MEMS

Earth Day with Dr. Marina Freire-Gormaly

On this special Earth Day episode, we sat down with Marina Freire-Gormaly, an assistant professor in the Mechanical Engineering department at Lassonde. Her research aims to make a positive impact on the environment, with a focus on UN SDG #6 – Clean Water and Sanitation. From solar-powered water treatment systems to energy recovery systems for remote communities without access to grid electricity, Professor Freire-Gormaly's work is truly cutting-edge.



Listen now:



Organized Research Units

At York University, Organized Research Units (ORUs) have a strong history of collaborative, innovative and interdisciplinary research. Lassonde's ORUs provide a home for research development beyond traditional academic units. ORUs serve as synergistic hubs for participatory research programs that bring together expertise from across disciplines.

- Centre for Research in Earth and Space Science
- Centre for Innovation in Computing @ Lassonde
- The Mobility Innovation Centre
- Manufacturing, Technology, and Entrepreneurship Centre
- Centre for Artificial Intelligence & Society
- York Centre for Vision Research
- One WATER

Learn more:



Discover MTEC

MTEC stands for Manufacturing, Technology, and Entrepreneurship Centre. Founded by three Co-Directors, who have over 40 years of combined industry experience in direct manufacturing, MTEC develops collaborative academic and industry partnerships to rapidly bring innovative technology solutions to market. MTEC aims to create new manufacturing, technology and entrepreneurship opportunities in Ontario and globally.

Learn more:

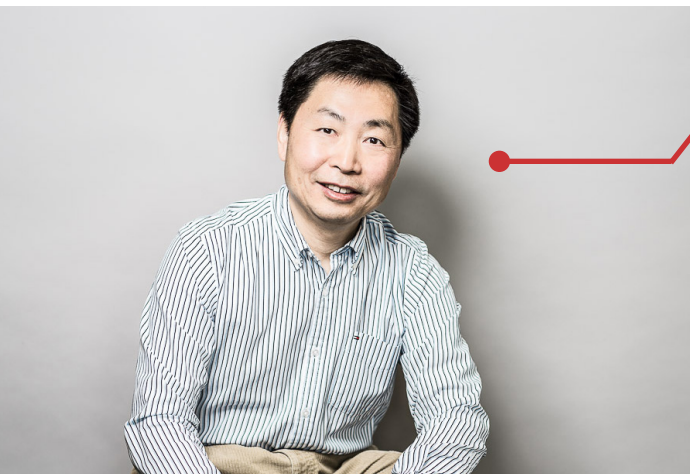


Graduate Funding

The Lassonde School of Engineering provides a competitive, guaranteed funding package to help meet the financial needs of our graduate students in order to promote excellence in research and teaching. Last year our graduate students took home **\$17,000 to \$18,000** after paying tuition*. Additional funding is also available through scholarships and awards.

In addition to our already impressive funding packages, the Lassonde School of Engineering offers top-ranked applicants the York Graduate Scholarship in recognition of academic excellence. The York Graduate Scholarship is awarded in Year 1 and is non-renewable. No special application is necessary for this scholarship and all eligible applicants are automatically considered.

*Amounts are subject to change in future years.



Innovative Research Explores 3D and 4D Printing for Space Equipment

With excess materials and waste in space equipment manufacturing, Professor George Zhu aims to revolutionize space manufacturing using 3D and 4D printing. This innovative research intends to address waste, financial burden, and carbon emissions related to space missions. Collaborative efforts involving diverse mechanical engineering fields at Lassonde will simulate space conditions and explore the feasibility of 3D and 4D printing for space equipment. This pioneering project could pave the way for sustainable and on-demand manufacturing in space.



Read more:



Alumni Spotlight



Daphene Solis

PhD candidate, Mechanical Engineering Department

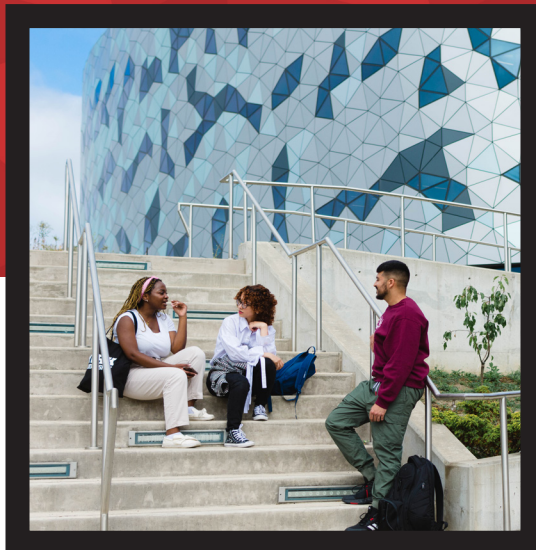
“I have always been passionate about mechanics, knowing how things work and are produced has kept my attention since I was a kid.

When I thought about a future career, becoming an engineer felt natural – it was me following my passion. In a world so moved by technologies and systems, engineering is an agent of improvement that allows us to come up with creative solutions to challenges.

My PhD research is focused on tissue engineering in the artificial production of biological substitutes that restore, maintain or improve tissue function. This area has a huge impact on society since its results can directly impact people’s lives, including reducing transplant waiting lists and improving people’s quality of life.”

Read more:





Connect with us!

✉ mech_gpa@lassonde.yorku.ca

🔗 lassonde.yorku.ca/gradstudies/mech

