

Welcome to McMaster University
Faculty of Engineering



Research
Education
Community
Innovation

BRIGHTER WORLD

eng.mcmaster.ca

ENGINEERING





McMaster University
is ranked in the
Top 100
universities in the world

*Academic Ranking of
World Universities*

6 disciplines
in the Top 150
Engineering Programs
Internationally (2017)

*ShanghaiRanking's Global
Ranking of Academic
Subjects*

7 departments,
2 schools and
3 unique 5-year
programs



McMaster University has a full-time student population of **26,077** including an undergraduate population of **22,558**.

**Faculty of Engineering:
By the Numbers**

- 459** Employees (181 Faculty, 278 Staff)
- 5,465** Undergraduate students
- 765** Graduate students

"McMaster Engineering is ranked among the top programs in the world. We foster a love of learning and sense of personal dedication to excellence within a broader societal context of engineering. Our faculty members and students are motivated and inspired to become engaged citizen scholars who will transform the world."

Ishwar K. Puri
Dean, Faculty of Engineering

McMaster named
Canada's Most
RESEARCH-INTENSIVE
University in 2017

Research Infosource

20 major
ENGINEERING
research institutes
and centres

32
prestigious
research chairs
McMaster
Engineering

“Making connections with
industry gives students
the opportunity to address
industry challenges now.”

Fei Chiang
Assistant Professor, Computing and Software



Opportunities for collaboration, discovery and entrepreneurship are embedded into the student experience and our research culture. Our world class facilities advance research in key areas like bio-innovation, smart systems and nanotechnology.

RESEARCH | Top Facilities

McMaster University's Faculty of Engineering has a well-established reputation as one of Canada's most research-intensive engineering faculties in disciplines such as advanced manufacturing, materials, energy, automotive, bio-innovation, and smart systems.

McMaster Manufacturing Research Institute

The McMaster Manufacturing Research Institute (MMRI) facility is designed to meet the sophisticated research and development needs of leading manufacturers in the automotive, aerospace, biomedical and consumer goods industries.

Canadian Centre for Electron Microscopy

The Canadian Centre for Electron Microscopy (CCEM) provides world-class electron microscopy capabilities and expertise to Canadian researchers and industry working in a broad range of fields.

McMaster Automotive Resource Centre

The McMaster Automotive Resource Centre (MARC) is one of Canada's leading research facilities in electric and hybrid vehicles where researchers, students and industry professionals are working to resolve issues facing the automotive industry.

Fostering Engineering Innovation

The Government of Canada and the Province of Ontario have invested \$43M, the single largest government investment in laboratories and research capacity expansion in McMaster's history. The funding is part of a massive \$75M project that will support the renovation and retrofit of existing labs in science and engineering, and the construction of a new innovation tower. The new spaces are due to open in 2018.

Industry Partnerships

McMaster Engineering enjoys strong links with industry across North America and around the world. A range of strategic partnerships, including joint funding of industrial research chairs, sharing of research equipment, transfer of intellectual property and consulting, provide industry with ideas, products and skilled people, and give faculty and students a way to stay on top of industry needs.



“At McMaster Engineering, we pride ourselves on creating the right environment for our researchers to thrive. We offer learning opportunities, a supportive network and a collaborative atmosphere to support the success of our faculty members and their research teams.”

Dr. John Preston
Associate Dean, Research & External Relations

HAMILTON

A 'city within a city', McMaster University is a community where diverse social, cultural and academic values are allowed to develop and prosper.

Nestled on the edge of the lush Cootes Paradise Sanctuary, McMaster is a campus that offers both breathtaking traditional architectural and innovative modern structures. The medium-sized campus features a bike and pedestrian-friendly core, and is well-served by municipal transit (HSR bus service) and regional GO Transit. The entire campus comprises 300 acres of beautiful natural space.

Family-friendly communities surround the campus, many with spectacular historical housing and top-rated schools. Cosy neighbourhoods, such as Dundas, Ancaster, and Westdale, offer independent shops, restaurants and cafes as well as an abundance of parks and green spaces.

Natural beauty abounds throughout the city, including McMaster University's very own backyard, which abuts the Royal Botanical Gardens and offers several hiking trails.

Photos courtesy of the City of Hamilton's Tourism and Culture Division



McMaster University sits on the traditional Territories of the Mississauga and Haudenosaunee Nations, and within the lands protected by the "Dish With One Spoon" wampum agreement.



"The moment I arrived at the airport, I realized everyone is so friendly and I didn't feel like I was someone from outside. I felt that I belonged here and that this was the place I can live in and progress in my work."

Shooka Mahboubi
PhD candidate, Materials Science and Engineering



OUR WEATHER:



FALL: September to November..... 8 to 20 °C
 WINTER: December to February..... 0 to -3 °C
 SPRING: March to May 1 to 11 °C
 SUMMER: June to August..... 19 to 24 °C

HAMILTON

Housing

There are a variety of rental properties available in Hamilton and the surrounding area.

hamiltonhomesforrent.com
rentershotline.ca

If you're looking to purchase, check out www.realtor.ca. Neighbourhoods close to campus include West Hamilton, Dundas, and Ancaster. West Hamilton offers a wide variety of price points for those seeking an urban feel close to campus. Locke Street, Westdale and Dundurn Street are considered desirable areas in West Hamilton. There are also many lovely neighbourhoods, with historic homes, around St. Joseph's Hospital and surrounding Gage Park. Dundas is also close to campus and offers beautiful century homes, with many properties close to the Dundas Valley Conservation Area, and a quaint village feel with festivals throughout the summer. Ancaster offers a village feel for those close to Wilson Street and shopping in the Meadowlands, as well as multiple new home developments. A few of the local builders include Marz Homes, Losani Homes, Rosehaven Homes, and LIV Communities. There are also plenty of options across the Hamilton Mountain into Stoney Creek and Binbrook. For those looking for rural properties, there are many options within 30 – 45 minutes of Hamilton and Burlington.

Locke Street



Dundas area

One of the most picturesque areas of Ontario, Hamilton is home to over 7,000 acres of recreational conservation areas and more than 100 waterfalls, many of which are near the Niagara Escarpment.

HAMILTON



Food

From restaurants ranked among the best in Canada to a vibrant food-truck scene, Hamilton's appetite for all things delicious knows no limits. International eateries, unique culinary events, and a growing craft beer scene complete the picture.



Music

No matter your musical taste, Hamilton delivers from local clubs hosting hot bands to classical orchestras.



Culture

The arts scene is booming in Hamilton from local art galleries and studios to the monthly James Street North Art Crawl and annual Supercrawl event, which attracts thousands of visitors each year.



History & Heritage

Distinctive architecture, world-class museums and 15 National Historic Sites offer a glimpse into the city's past and what makes Hamilton the fascinating community it is today.



Sports

Whether you love to bike, hike, or play organized sports, Hamilton has it all. The city is also home to the CFL's Hamilton Tiger-Cats and other sports teams.



Travel

Hamilton (affectionately nicknamed 'The Ambitious City'), is less than an hour's drive from the United States border and only 45 minutes from Toronto, Niagara Falls, Waterloo and Guelph. The John C. Munro Hamilton International Airport services Eastern and Western Canada, the United States, Mexico, and the Caribbean. Hamilton is also within close proximity to Lester B. Pearson International Airport and Buffalo Niagara International Airport.

Both rich in culture and surrounded by spectacular nature, Hamilton is a city like no other. It is admired for its distinctive urban feel and vibrant arts community. Bounded by the picturesque southern shores of Lake Ontario, with the lush trails of the Niagara Escarpment offering incredible access to both urban adventure and outdoor recreation, Hamilton has been designated a UNESCO World Biosphere Reserve.

“I want to showcase that we’re doing exciting research here and I want to show the many avenues you can pursue in a research career.”

Kathryn Grandfield
Assistant Professor,
Materials Science and Engineering



McMaster Equity & Diversity

Diversity drives innovation and enables the Faculty's global leadership in discovery, education and engagement. We proactively recruit female faculty members and require diversity training for hiring and awards committees. We have introduced new measures such as graduate supervision during leaves and partner placements.

We take creating a welcoming environment seriously, and have demonstrated this commitment in a variety of ways, including launching a comprehensive employee engagement survey, ensuring the inclusivity of Welcome Week activities with our student partners, and supporting the Engineering Graduate Society. Our community goes beyond campus borders, extending to our alumni and key industry and academic partners worldwide.

Women in Engineering Committee

The Women in Engineering Committee is comprised of female faculty members who meet to discuss issues, such as gender parity, how to support young female engineers and one another.

It ensures that faculty members are involved as role models in all outreach activities. The committee works to improve success for female engineering faculty members in our university and others by providing peer mentoring opportunities and hosting workshops.

McMaster University has an Equity and Inclusion Office

We work with campus and community partners to ensure the institution is a place where all students, staff and faculty are treated equitably and respectfully in all areas of campus life.

Did you know? McMaster University's Faculty of Engineering is home to Canada's first LGBTQ+ student group, Engiqueers. It is now a robust network across the country.

“I want to create job-ready employees for future jobs,
not just for jobs that are available now.”

Wael El-Dakhkhni
Director, McMaster Institute for
Multi-hazard Systemic Risk Studies
(INTERFACE)
Professor, Civil Engineering



Faculty Development Academy

The McMaster Engineering Faculty Development Academy was established in 2014 to support the Faculty's mission and strategic plan, Invest for Excellence, and to construct new and effective learning experiences for its faculty staff, and students. The Faculty is committed to the pursuit of excellence in teaching and experiential learning. Our goal is to empower our faculty members to build on their strengths as instructors and classroom facilitators in order to stay current with the evolving technological advances in teaching.

In an age where student learning is evolving and changing, it is imperative that we strive to stay current with technological advances in teaching. Initiatives established through the Faculty Development Academy will not only provide an enriched teaching and learning experience for our faculty, but also offer support in research, leadership and academic administrative processes.



“My students have energy, enthusiasm and
they're hungry. They want things to happen.”

Heather Sheardown
Canada Research Chair in Ophthalmic Biomaterials
and Drug Delivery
Professor, Chemical Engineering

McMaster SUPPORT SYSTEMS

Here's how we can help.....

Engineering Life Event Fund

The Faculty of Engineering recognizes that from time to time faculty members may find it necessary to take a leave of absence from their academic responsibilities as a result of medical issues, care of a relative, pregnancy and parenting, or a similar life event. These events can impact on the progression of a faculty member's scholarship and career. In recognition of this, the Faculty of Engineering has established the Engineering Life Event Fund (ELEF) which a faculty member may apply for to hire a postdoctoral fellow or research associate to assist with their scholarship during the period of the leave.

The McMaster University Faculty Association (MUFA)

The McMaster University Faculty Association (MUFA), founded in 1952, represents and protects the interests of all faculty members and senior academic librarians of McMaster University. It is a professional association responsible for collective bargaining with the Administration.

Faculty Benefits

- McMaster demonstrates a commitment to work-life balance through access to on-site fitness facilities at a discounted rate, healthy workplace initiatives, family-friendly policies, an on-site daycare facility, and a variety of March Break and Summer Camp programs
- Competitive starting salary rates and performance-based increases through the annual Career Progress and Merit process
- Additional Services for Faculty & Staff
- Employee & Family Assistance Program
- Professional Development Allowance
- Tuition Assistance & Bursary
- Extended Health and Dental Benefits
- Pension Plan
- New Employee Orientation

McMaster has been ranked among the top employers in the Hamilton-Niagara region for the

THIRD YEAR
in a row.



Spousal Hiring

To remain competitive in the recruitment and retention of faculty, McMaster University works with the Faculties to assist in finding suitable faculty positions for a candidate's spouse/partner. The Faculty of Engineering will also consider providing resources through Career Services or outside consultants for spouses/partners who are relocating to the Hamilton area, but are not seeking a faculty appointment.

Partnering Workshops

The Faculty of Engineering's Faculty Development Academy partners with the Office of the Associate Vice-Provost, Faculty and the MacPherson Institute for Leadership, Innovation and Excellence in Teaching to offer a variety of personal and professional development workshops.

New Faculty Orientation

A variety of orientation experiences are available to new faculty and staff members, including the university-wide New Employee Orientation.

The Faculty of Engineering also offers an orientation for new faculty members that includes instructional skills training, mentorship, and connecting with the research and industry liaison offices on campus.



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