

Memorandum

Faculty of Engineering, Office of the Dean
Macdonald Engineering Building
817 Sherbrooke Street West, Room 382
Montreal, Quebec H3A 0C3

TO: Board of Governors
FROM: Professor Viviane Yargeau, Dean of the Faculty of Engineering
SUBJECT: Faculty of Engineering
DATE: February 6, 2025
DOCUMENT #: GD24-38

ACTION REQUIRED: ☒ INFORMATION ☐ APPROVAL/DECISION

ISSUE & EXPECTED OUTCOME An overview of activities, initiatives and developments of the Faculty of Engineering is provided to the Board of Governors for information.

BACKGROUND & RATIONALE Presentations feature regularly on-Board agendas in order to keep Board members apprised of the University's academic and campus activities.

The following presentation has been prepared by the Office of the Dean of Engineering and provides an overview of the Faculty of Engineering and opportunities.

ALIGNMENT WITH MISSION AND STRATEGIC PRIORITIES Presentations of University Faculties apprise the Board of the University's academic priorities.

COMPLIANCE WITH UNIVERSITY POLICY Faculty presentations are a regular feature on Board agendas.

COMPLIANCE WITH LEGISLATION/ EXTERNAL REGULATIONS There are no external legislation requirements applicable.

RISK FACTORS There are no risk factors applicable.

SUSTAINABILITY CONSIDERATIONS N/A

IMPACT OF DECISION AND NEXT STEPS	N/A
MOTION OR RESOLUTION FOR APPROVAL	N/A
APPENDICES	Appendix A: Presentation on Faculty of Engineering

THE FACULTY OF ENGINEERING

Viviane Yargeau, Ph.D.

Dean and Professor
Faculty of Engineering



Faculty of
Engineering

Faculté
de génie



A hand holding a lit lightbulb against a cloudy sky background. The hand is positioned in the lower center, with the thumb and index finger gripping the base of the bulb. The lightbulb is glowing, and its filament is visible. The background is a soft, out-of-focus sky with light clouds. A vertical red bar is on the left side of the image.

INNOVATION BY DESIGN

Teaching and Training

Preparing globally-minded professionals who are equipped to solve the problems that matter

Research

Defining the path of future discovery through knowledge creation and transfer with an emphasis on technology and the built world

Leaders & Entrepreneurs

Driving socially responsible innovations and entrepreneurship that, by design, will enhance the prosperity of society at large

ACADEMIC UNITS

Departments

Bioengineering
Chemical Engineering
Civil Engineering
Electrical and Computer
Engineering
Mechanical Engineering
Mining and Materials
Engineering

Schools

Peter Guo-hua Fu School of Architecture
Urban Planning

Accredited programs

8 Undergraduate programs
3 Graduate programs (Architecture, Urban Planning, Aerospace Engineering)

Innovative programs recently created

Bachelor of Global Engineering in collaboration with CentraleSupélec (France)
M.Eng. Non-Thesis – Sustainability in Engineering and Design
M.Eng. Non-Thesis – Biomanufacturing (in collaboration with Medicine)
M.Eng. Non-Thesis – Electrical Engineering/Applied Artificial Intelligence

DIVERSE SUPPORTING UNITS

McGill Engineering Students Centre

Student Affairs Office, Career Centre & Wellness Hub

Internships & Co-ops Office

[created in Dec. 2024]

Empower

Leadership, Personal & Professional Development
[includes the Design Teams]

E-IDEA

Engineering Inclusivity, Diversity, & Equity Advancement

ELATE

Enhanced Learning & Teaching in Engineering

Engine

Innovation & Entrepreneurship Hub
[open to the whole McGill community since Sept. 2024]

INSTITUTES, RESEARCH CENTRES & NETWORKS

Institutes

Trottier Institute for Sustainability in Engineering and Design (TISED)

McGill Institute for Advanced Materials (MIAM)

McGill Institute for Aerospace Engineering (MIAE)

Research Centres

Brace Water Centre

Centre for Intelligent Machines (CIM)

Centre for Systems, Technologies and Applications for Radiofrequency and Communication (STARaCom)

McGill Centre for Innovation in Storage and Conversion of Energy (McISCE)

Related Units

Dept. of Bioresource Engineering (Agricultural & Environmental Sciences)

Dept. of Biomedical Engineering (Medicine)

School of Computer Science (Science)

And others

FACULTY OF ENGINEERING COMMUNITY

Faculty & staff

150 tenure-track professors (24% female)

14 Faculty Lecturers

140 Technical and administrative staff members

Graduate students

Over 530 doctoral and 530 Master's students

- 55% of graduate students are international
- 36% of Masters and 30% of PhD candidates are female

Undergraduate students

Over 3500 undergraduate students

- 26% are international
- 36% are female

Alumni & donors

Over 26,000 alumni worldwide

Recent philanthropic successes: ~2000 donations per year; Graduate fellowships; Community Engagement and Outreach; Entrepreneurship and Innovation



OPPORTUNITIES

Healthy Faculty Finances

- \$43.7M (FY25) annual operating budget; no operating deficit
- \$2.5M average annual additional budget from Government priority to train more engineers

Research & Innovation

- **Mission, Vision, and Values** currently in development for the Faculty
- Apply our expertise aligned with McGill Strategic Research Plan, to support and lead the development of **sustainability projects** (e.g., Trotter Institute for Sustainability in Engineering and Design (TISED); New Vic Project; McGill Sustainability Systems Initiative)

Teaching & Learning

- Create new **joint programs and partnerships** based on our experience with CentraleSupélec
- Integrate notions of the ***Engineering One Planet*** initiatives in our programs
- Emphasize **design** and **experiential learning** in our programs

Space

- Secure space for our **Bioengineering Department** currently located at UQAM
- Repurpose spaces liberated by the move to New Vic to improve the student environment
- Major renovation planned for the engineering workshops to create **Makerspace** and **FabLab**