

# POLY MTL 150 YEARS



ALL THE MORE REASON TO POWER SUSTAINABLY  
ALL THE MORE REASON TO LEARN  
ALL THE MORE REASON TO EVOLVE  
**ALL THE MORE REASON TO CREATE CONNECTIONS**  
ALL THE MORE REASON TO BUILD  
ALL THE MORE REASON TO SUPPORT  
ALL THE MORE REASON TO MOVE FORWARD

## DISCOVER

MORE THAN A UNIVERSITY :  
A BENCHMARK IN  
ENGINEERING

**POLYTECHNIQUE  
MONTREAL**

TECHNOLOGICAL  
UNIVERSITY





# POLYTECHNIQUE MONTRÉAL AT A GLANCE

One of Canada's largest engineering teaching and research institutions

**1<sup>st</sup> ranked** Francophone Campus  
in North America with affiliated  
schools  
*(QS World University Ranking 2023)*



**10,000** students  
**29%** women



**24%** graduate students



**29%** International students

**150** years of  
teaching and research

**7** departments  
**12** engineering fields  
**120** programs

**300**  
professors

**1,500**  
employees



Facts and  
Stats Video



## OUR DEPARTMENTS



**Chemical Engineering  
Département**  
[polymtl.ca/gch/en](http://polymtl.ca/gch/en)  
[genie.chimique@polymtl.ca](mailto:genie.chimique@polymtl.ca)



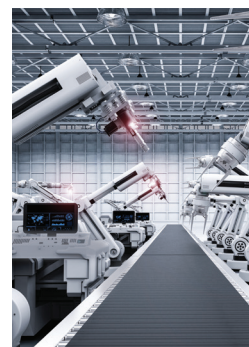
**Civil, Geological and Mining  
Engineering Department\***  
[polymtl.ca/cgm](http://polymtl.ca/cgm)  
[cgm@polymtl.ca](mailto:cgm@polymtl.ca)



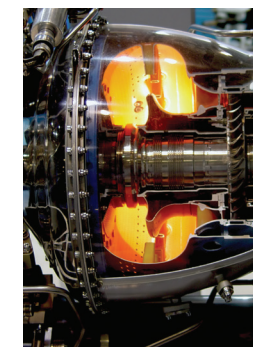
**Electrical Engineering  
Department\***  
[polymtl.ca/ge](http://polymtl.ca/ge)  
[dge@polymtl.ca](mailto:dge@polymtl.ca)



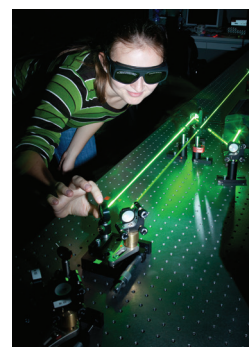
**Computer Engineering  
and Software Engineering  
Department\***  
[polymtl.ca/gigl](http://polymtl.ca/gigl)  
[gigl@polymtl.ca](mailto:gigl@polymtl.ca)



**Mathematics and Industrial  
Engineering Department\***  
[polymtl.ca/magi](http://polymtl.ca/magi)  
[magi@polymtl.ca](mailto:magi@polymtl.ca)



**Mechanical Engineering  
Department**  
[polymtl.ca/meca/en](http://polymtl.ca/meca/en)  
[mec-encadrement@polymtl.ca](mailto:mec-encadrement@polymtl.ca)



**Engineering Physics  
Department**  
[polymtl.ca/phys/en](http://polymtl.ca/phys/en)  
[genie.physique@polymtl.ca](mailto:genie.physique@polymtl.ca)



**Biomedical Engineering\***  
[polymtl.ca/biomed](http://polymtl.ca/biomed)  
[biomedical-es@polymtl.ca](mailto:biomedical-es@polymtl.ca)

\* This link leads to a section in French.



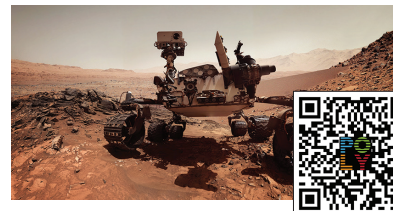
# SPHERES OF EXCELLENCE IN RESEARCH

## INNOVATION FOR THE WORLD OF TOMORROW



### ENERGY, WATER AND RESOURCES IN A TRANSITIONAL WORLD

Exploring renewable energy and energy efficiency. Developing innovative solutions for managing water resources.



### INDUSTRY OF THE FUTURE AND DIGITAL SOCIETY

Developing Industry 4.0 projects focused on automation processes, wireless communication, data analysis and artificial intelligence that promote the integration of systems.



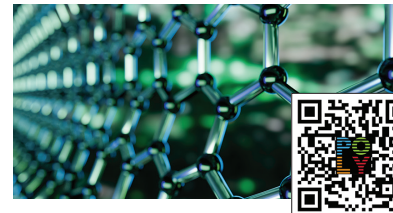
### NEW FRONTIERS IN INFORMATION AND COMMUNICATION TECHNOLOGIES

Using big data and the Internet of Things to connect and manage systems, increase computer security and improve human-machine interaction.



### ENVIRONMENT, ECONOMY AND SOCIETY

Addressing environmental issues caused by consumer habits and technological choices by proposing innovative solutions in line with the principles of the circular economy.



### INNOVATIVE MATERIALS

Leading in the design of the most innovative materials of the 21<sup>st</sup> century to create lighter, stronger, more efficient, and more socially responsible materials.



### SUSTAINABLE TRANSPORT AND INFRASTRUCTURES

Modeling the mobility of the future, validating collected data and paving the way for more sustainable vehicles, aircraft and roads.



### HUMAN HEALTH

Working closely with surgeons, pathologists and neurologists, among others, to find new ways to treat diseases and make discoveries that benefit both clinicians and patients.



### MODELING AND ARTIFICIAL INTELLIGENCE

Using data to create algorithms to increase the security of information systems, improve the diagnosis of patients, optimize supply chains and facilitate decision-making.



**100M\$** annual research budget

**60** Research units

**32** Industrial Research Chairs

**24** Canada Research Chairs

**1** Canada Excellence Research Chair

**27** Active spinoff companies

# WORLD-LEADING RESEARCH INSTITUTES

## POLYTECHNIQUE MONTRÉAL COFOUNDED SEVERAL INSTITUTES RECOGNIZED INTERNATIONALLY



### INSTITUT TRANSMEDTECH [transmedtech.org](http://transmedtech.org)

Led by 5 founding institutions, Polytechnique Montréal, Université de Montréal, and 3 hospitals (the CHU Sainte-Justine, the CHUM and the Jewish General Hospital) and partnering with over 50 institutions, TransMedTech aims to support the development of innovative medical technologies responding to the needs of users and health professionals.



### INSTITUTE FOR DATA VALORISATION [ivado.ca/en](http://ivado.ca/en)

Polytechnique Montréal, Université de Montréal and HEC Montréal, launched IVADO to create the nation's leading data science research and training centre, with the aim of building a dynamic hub of data-driven innovation through industry partnerships and entrepreneurship. Today IVADO is composed of 1000 data science, optimization and AI experts, 7 internationally recognized research centres and departments, 12 Canada Research Chairs and more than 70 international collaborators.



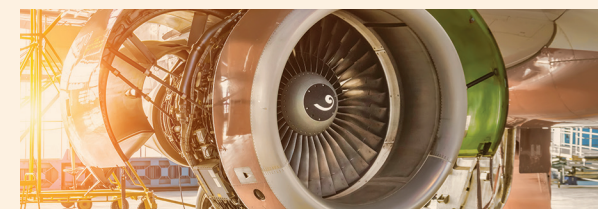
### INTERNATIONAL REFERENCE CENTER FOR LIFE CYCLE OF PRODUCTS, PROCESSES AND SERVICES [ciraig.org](http://ciraig.org)

Through leading-edge research, expert services on sustainability, and education, CIRAIG aims to shape and implement metrics focused on life cycle thinking. CIRAIG brings together the expertise of two universities in Canada, Polytechnique Montréal and UQAM, as well as two universities in Switzerland, HES-SO and EPFL, in support of global industrial leaders and governments.



## SPOTLIGHT ON AEROSPACE:

### POLYTECHNIQUE MONTRÉAL, A PILLAR OF TRAINING AND RESEARCH



Polytechnique Montréal collaborates with international manufacturers and innovative consortia such as CRIAQ, InnovÉÉ, CARIC, SA2GE. A leading strategic partner in the race for lighter, cleaner, quieter, more reliable, and carbon-neutral aircraft, Polytechnique's 15-year partnership with Safran, for example, focusses on reducing aircraft weight, managing acoustic elements, and system electrification.

## INDUSTRY COLLABORATION

Polytechnique teams up with industry to address global challenges

- Air Canada
- American Air Liquide
- Arcelor Mittal
- Bell Helicopter Textron Canada
- Bombardier
- CAE
- Esterline CMC Electronics
- General Electric Canada
- Liebherr-Aerospace Canada
- Logistik Unicorp
- LVMH
- MDA Satellite Systems
- Medtronic
- NPL Technologies
- Pratt & Whitney Canada
- Safran Group
- Siemens
- Solvay
- Thales
- Zimmer Biomet



# POLYTECHNIQUE MONTRÉAL CONNECTED TO THE WORLD

Cooperation, training, research, knowledge dissemination: regardless of how it happens, our primary goal is to create a borderless university.

**200 partnerships** with prestigious engineering institutions in over **40 countries** on **6 continents**

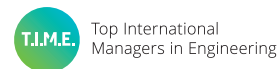
Over **130 nationalities** on campus !

Over **600 international exchange students** each year in the French-taught program and in the **9 English advanced specialised courses**, the **International Thematic Clusters in Engineering**

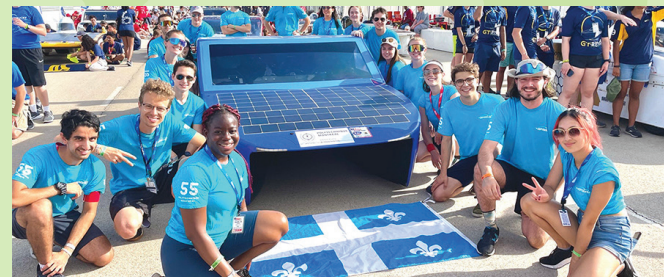
**39 international double-degree agreements** benefiting close to **200 incoming students** each year

Over **250 international research interns** welcomed annually in our laboratories

The only North American member of **2 prestigious networks** of excellence specialized in engineering :



## DYNAMIC CAMPUS LIFE !



16 Technical clubs // 40 student committees

Dedicated welcome programs for international students

# MONTRÉAL // Culture, Tech & 'Joie de vivre' !

**A bilingual metropolis** of 4 million people, Montréal is located on the St-Lawrence River, in Quebec, Canada's largest province.

90-minute flight to Toronto and to New York! Less than an hour's drive to the U.S. border.



**Student City in North America**, tied with Boston in QS Best Student Cities 2022 survey.

### MONTRÉAL : A BALANCE OF CITY LIFE AND NATURE

- Vibrant cultural city with 100+ festivals and 70 museums
- Outdoor activities with nearby national parks and ski resorts
- One of the safest cities in North America
- One of the world's most tree-filled cities

Discover more about Montreal here:  
[montrealinternational.com/en/study](https://montrealinternational.com/en/study)



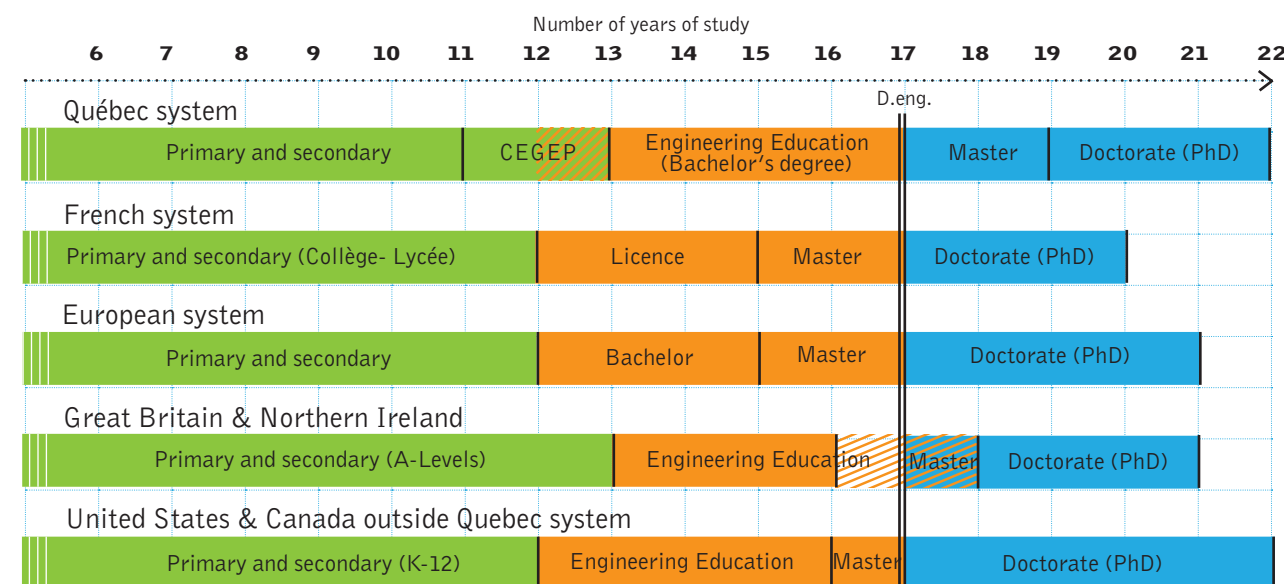
**In Canada for university research funding** with \$1.94+ billion yearly.

### MONTRÉAL : A THRIVING HIGH-TECH HUB

- 1<sup>st</sup> city in Canada and a world leader in digital creativity
- 2<sup>nd</sup> best place to invest in aerospace in North America
- 3<sup>rd</sup> best place to invest in AI in North America
- 5<sup>th</sup> largest video game development hub in the world
- 6<sup>th</sup> largest life sciences and health technologies hub in North America

(Source: Montréal International 2022)

## COMPARATIVE EDUCATION PATHWAYS








**Polytechnique Montréal International (POINT)**

Polytechnique Montréal  
P.O. Box 6079, Station Centre-Ville  
Montréal, QC, CAN, H3C 3A7  
[polymtl.ca/point/en](http://polymtl.ca/point/en) | [point@polymtl.ca](mailto:point@polymtl.ca)

 [polytechnique-montreal-international](https://www.linkedin.com/company/polytechnique-montreal-international)

**POINT**  
POLYTECHNIQUE MONTRÉAL  
INTERNATIONAL

