POLY MTL 150 YEARS

ALL THE MORE REASON TO POWER SUSTAINABLY
ALL THE MORE REASON TO LEARN
ALL THE MORE REASON TO CREATE CONNECTIONS
ALL THE MORE REASON TO EVOLVE
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
MONTRÉAL**

TECHNOLOGICAL
UNIVERSITY

UT TENSIO   SIC VIS

POLYTECHNIQUE MONTRÉAL AT A GLANCE

One of Canada's largest engineering teaching and research institutions

1st ranked Francophone Campus in North America with affiliated schools
(QS World University Ranking 2023)

POLYTECHNIQUE MONTRÉAL

Université de Montréal
HEC MONTRÉAL

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 Departement
polymtl.ca/gch/en
genie.chimique@polymtl.ca

Civil, Geological and Mining Engineering Department*
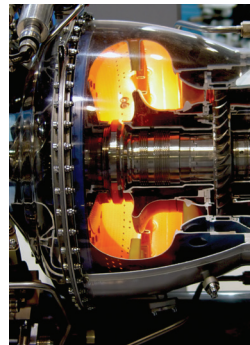*polymtl.ca/cgm*
cgm@polymtl.ca

Electrical Engineering Department*
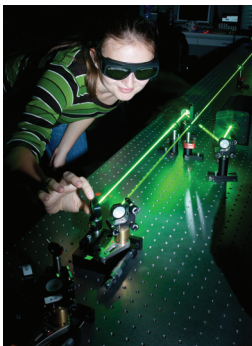*polymtl.ca/ge*
dge@polymtl.ca

Computer Engineering and Software Engineering Department*
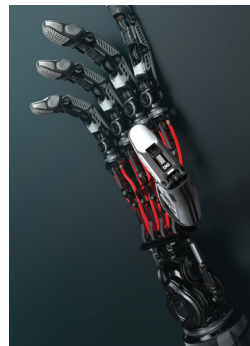*polymtl.ca/gigl*
gigl@polymtl.ca

Mathematics and Industrial Engineering Department*
polymtl.ca/magi
magi@polymtl.ca

Mechanical Engineering Department
polymtl.ca/meca/en
mec-encadrement@polymtl.ca

Engineering Physics Department
polymtl.ca/phys/en
genie.physique@polymtl.ca

Biomedical Engineering*
polymtl.ca/biomed
biomedical-es@polymtl.ca

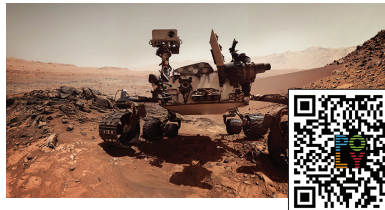* This link leads to a section in French.

SPHERES OF EXCELLENCE IN RESEARCH

INNOVATION FOR THE WORLD OF TOMORROW

> **>**

100M$ annual research budget

60 Research units

32 Industrial Research Chairs

24 Canada Research Chairs

1 Canada Excellence Research Chair

27 Active spinoff companies

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.
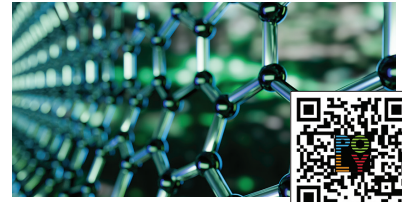
NEW FRONTIERS IN INFORMATION AND COMMUNICATION TECHNOLOGIES
Using big data and the Internet of Things to connect and manage systems, increase computer security and improve human-machine interaction.

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 21st 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.

WORLD-LEADING RESEARCH INSTITUTES

POLYTECHNIQUE MONTRÉAL COFOUNDED SEVERAL INSTITUTES RECOGNIZED NTERNATIONALLY

INSTITUT TRANSMEDTECH
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

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.
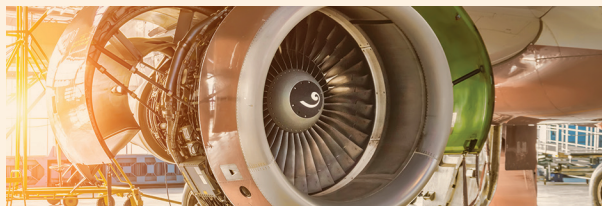
INTERNATIONAL REFERENCE CENTER FOR LIFE CYCLE OF PRODUCTS, PROCESSES AND SERVICES
ciraig.org

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-taugh program and in the **9** English advanced specialised courses, the **International Thematic Clusters in Engineering**
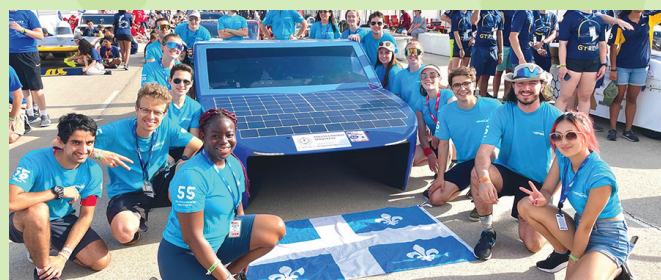
39 international double-degree agreements benefiting close to **200** incoming students each year

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

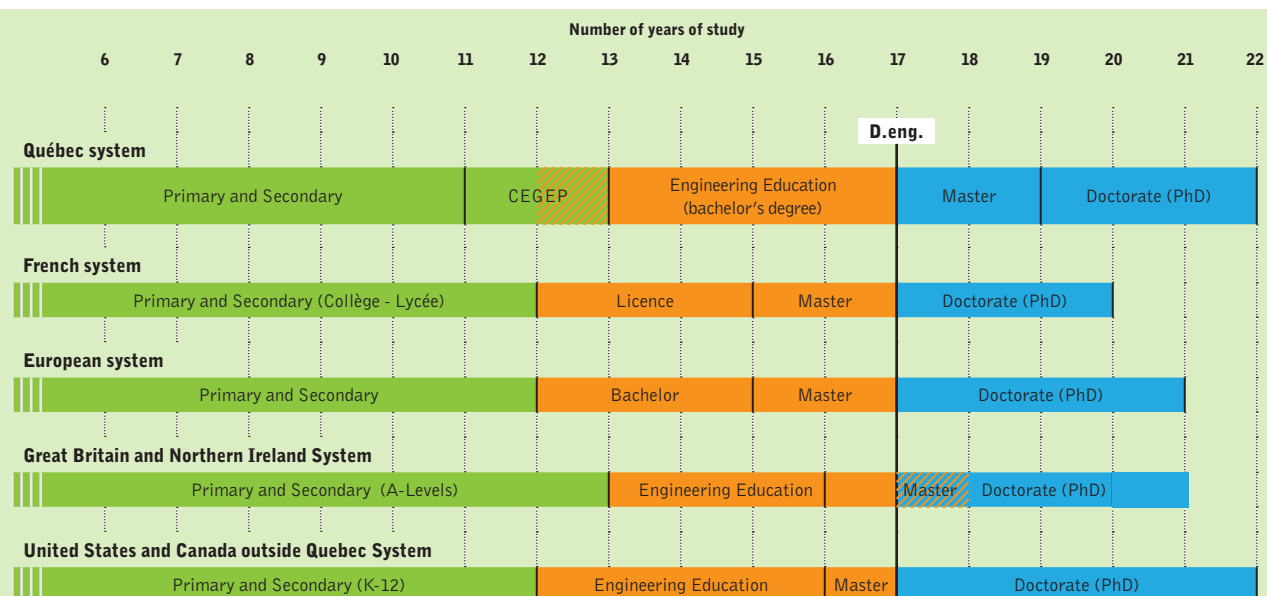The only North American member of **2 prestigious networks** of excellence specialized in engineering :

T.I.M.E. Top International Managers in Engineering

CLUSTER

DYNAMIC CAMPUS LIFE !

16 Technical clubs // 40 student committees

Dedicated welcome programs for international students

GO POLY

Accueil Plus

COMPARATIVE EDUCATION PATHWAYS

Number of years of study

System	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Québec system	Primary and Secondary						CEGEP		Engineering Education (bachelor's degree)				Master		Doctorate (PhD)		
French system	Primary and Secondary (Collège - Lycée)							Licence		Master			Doctorate (PhD)				
European system	Primary and Secondary							Bachelor		Master			Doctorate (PhD)				
Great Britain and Northern Ireland System	Primary and Secondary (A-Levels)							Engineering Education					Master	Doctorate (PhD)			
United States and Canada outside Quebec System	Primary and Secondary (K-12)							Engineering Education				Master	Doctorate (PhD)				

D.eng. (at year 17, Québec system)

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.

#1 **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

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

MONTRÉAL : A THRIVING HIGH-TECH HUB

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

(Source: Montréal International 2022)