

**ÉCOLE DE
TECHNOLOGIE
SUPÉRIEURE**
Université du Québec

ÉTS

Engineering for Industry

GRADUATE-LEVEL ENGINEERING PROGRAMS

Ideas and vision for the future!



A FRIENDLY CITY

“I like Montréal because it is a multicultural city; there is a true openness toward other cultures.”

ERICK VELÁZQUEZ, Ph.D. student from Mexico, who has been living in Québec for five years



ENGINEERING FOR INDUSTRY

ÉTS designs programs that are focused on the needs of industry. A significant proportion of the Master's and Doctoral projects are carried out in cooperation with industrial partners, and nearly 63% of research funds at ÉTS stems from partnerships with public, private, and not-for-profit organizations.

In short, when you study at ÉTS, you will acquire practical skills and resolve real problems affecting the industrial world.



HIGHLY DIVERSIFIED PROGRAMS

ÉTS offers a range of programs enabling you to develop your research skills and acquire skill sets in the fields of technology and management.

- Aerospace Engineering
- Automated Manufacturing Engineering
- Business Start-Up
- Construction Engineering
- Design and Management of Canadian Engineering Projects
- Electrical Engineering
- Engineering Project Management
- Environmental Engineering
- Financial Engineering
- Healthcare Technology
- Information Technology
- Innovation Management
- International Projects and Global Engineering
- Legal Matters
- Mechanical Engineering
- Occupational Health and Safety
- Renewable Energy and Energy Efficiency
- Software Engineering
- Telecommunication Networks
- Urban Infrastructures



“ÉTS students are capable of delivering tangible projects, and not only papers. The work-terms and the industry contacts that they have developed during their studies are definitely an asset.”

OLIVIER MUNGER, President of Quattrium

PROGRAMS THAT ALLOW YOU TO EXCEL

**ARE YOU LOOKING TO UPDATE YOUR TECHNICAL SKILLS OR ACQUIRE
COMPETENCIES IN MANAGEMENT?**

HAVE YOU BEEN WORKING FOR A NUMBER OF YEARS?

Many of our programs are available during evenings and weekends, on a part-time basis. This allows you to continue your career while pursuing your graduate or post-graduate studies at your own pace.

You have the option of beginning your studies with a short program, and then continuing on to a specialized graduate degree program (DESS) or Master's program. Most of our programs feature this type of interchangeable structure.

A LEADING UNIVERSITY IN TERMS OF RESEARCH

When it comes to the intensity of research, ÉTS is ranked among the 20 leading universities in Canada, taking into account all fields and sizes.

Our professors are recognized for their expertise in applied research in numerous fields, including many that Montréal is well known for:

- Aerospace and ground transportation
- Healthcare technologies
- Information and communication technologies
- Energy
- Environment

Most of our professors have experience in industry. In addition to securing numerous industrial research contracts, our professors also receive mandates from large granting organizations.

SUPPORTING ENTREPRENEURSHIP

**DO YOU HAVE WHAT IT TAKES TO BE AN ENTREPRENEUR?
WOULD YOU LIKE TO MARKET ONE OF YOUR PROJECTS?**

ÉTS supports students and graduates who want to start up their own business through Centech, a technological and industrial start-up incubator.

Since its inception, businesses launched through Centech have created more than 500 jobs, and boast combined sales of \$50 million.

Every year, graduate and post-graduate students at ÉTS receive close to \$1.5 million in bursaries and scholarships.

There are numerous bursaries and scholarships available. Some are reserved for **Canadian citizens, permanent residents** or **international students**, including the following:

- Merit-based scholarships for graduates of undergraduate programs at ÉTS who wish to pursue their graduate studies;
- Development of international cooperation (doctoral bursaries);
- Bursaries based on involvement in graduate and post-graduate programs;
- Internal bursaries;
- Bursaries from companies and partners of the Fonds de développement de l'ÉTS (ÉTS Development Fund);
- Financing for research outreach;
- Bursaries from professors;
- Bursaries awarded by external organizations.

In addition to bursaries and scholarships, the following financing options are available to you:

- Paid work-terms;
- Applying for awards and competitions;
- Working as a teacher, teaching assistant or research assistant;
- Working part time on campus.

FINANCIAL SUPPORT FOR STUDENTS

INTERNATIONAL STUDENTS: INCREASED TUITION EXEMPTION

All international students who are registered for a Ph.D. program on a full-time basis are eligible for increased tuition exemption.

International students who are registered for a Master's program with thesis on a full-time basis may be eligible for increased tuition exemption if certain conditions are met.

In addition to being a city in which you can live in English or French, Montréal also enjoys an excellent reputation across Canada and around the world:

- Recognized as a hub for many fields, including information technologies, aerospace and healthcare technologies;
- Ranked 5th in North America in terms of the number of high-tech jobs;
- Leading Canadian city in terms of the awarding of patents;
- Ranked among the leading cities in North America for quality of life, according to *Mercer Human Consulting*;
- The most affordable metropolis in which to live on the North American continent;
- Ranked first for the number of students per capita, ahead of Boston;
- Named by *Wallpaper* magazine as one of the 7 most fascinating cities in the world.

MASTER'S WITH THESIS *(M. A. Sc.)*

With a focus on research, Master's programs with thesis are intended for individuals who want to pursue their studies at the Ph. D. level or to work in industry.

- They include 45 credits, comprising 15 course credits and 30 research credits, as well as the writing of a thesis;
- A course on planning engineering research projects is included in the first session.

MASTER'S WITH PROJECT *(M. Eng.)*

These programs are intended for engineers who want to specialize in a certain technical field or focus on technology management.

- They include 4 to 6 management courses related to engineering;
- They include 4 to 9 specialized courses;
- They include 45 credits, as follows, depending on the specific program:
 - 30 course credits and a project worth 15 credits;
- or**
- 39 course credits and a technical project worth 6 credits.

SPECIALIZED GRADUATE DEGREE PROGRAM (DESS)

Depending on the specific program, this 30-credit degree includes the following:

- 4 to 5 courses and a project worth 15 credits;
- or**
- 6 to 8 courses and a technical project worth 6 credits;
- or**
- 8 to 10 courses (no project).

If you wish to pursue your studies after earning a DESS, your courses may be eligible to be credited toward a Master's degree.

SHORT PROGRAM

The short program includes 15 credits for 4 or 5 courses focused on a specific theme.

Credits that are earned within the context of a short program may be recognized toward a DESS.

ADMISSION CONDITIONS

- Hold an engineering diploma (BA or equivalent) in an appropriate field;
- Have a cumulative grade point average of at least 3 out of 4.3 or equivalent¹.

Exceptions

- Under certain conditions, a student may be admitted to a short program or DESS program with a grade point average of at least 2.8 out of 4.3 at the Bachelor level²;
- All applicants who possess the required knowledge, appropriate training and relevant experience are eligible to be admitted pursuant to a favorable evaluation of their file.

¹The Bureau du registraire (Registrar's Office) is responsible for evaluating diplomas earned based on a different marking system.

²Idem.

"My courses give me the opportunity to meet people who have acquired management experience and who want to help students. These networking activities are extremely beneficial for me, because I want to open my own company."

JEAN-PHILIP RANCOURT, Master's student in International Management Projects

OUR MASTER-LEVEL PROGRAMS

Programs	MASTER'S WITH THESIS (M. A. Sc.)	MASTER'S WITH PROJECT (M. Eng.)	SPECIALIZED GRADUATE DEGREE PROGRAM (DESS)	SHORT GRADUATE PROGRAM
Structure	4 to 5 courses + research thesis	8 to 13 courses + project	4 to 8 courses + project or 8 to 10 courses	4 to 5 courses
Duration	<p><i>Full Time:</i> 2 years, comprising</p> <ul style="list-style-type: none"> • 2 sessions for the courses • 4 sessions for the research thesis <p><i>Part time:</i> Only full-time admissions are accepted unless authorized</p>	<p><i>Full Time:</i> 2 years, comprising</p> <ul style="list-style-type: none"> • 4 or 5 sessions for the courses • 1 or 2 sessions for the project <p><i>Part time:</i> 4 years, comprising</p> <ul style="list-style-type: none"> • 8 to 10 sessions for the courses • 2 to 4 sessions for the project 	<p><i>Full Time:</i> 1 year, comprising</p> <ul style="list-style-type: none"> • 1 to 3 sessions for the courses • 1 to 2 sessions for the project, as applicable <p><i>Part time:</i> 2 years and one session, comprising</p> <ul style="list-style-type: none"> • 4 to 7 sessions for the courses • 1 to 3 sessions for the project, as applicable 	Maximum of 7 sessions
Objectives	<p>Introduction to research-innovation by completing a large-scale project</p> <p>Specialize in a technical engineering field or a field related to technology management</p> <p>Prepare for Ph.D. studies</p>	<p>Introduction to the concepts of technology management (innovation management, project management)</p> <p>Specialize in a technical engineering field or a field related to technology management</p> <p>Synthesize the knowledge acquired through a project carried out within a company, an application project or a technical report</p>	<p>Enhancement of your knowledge of a technical engineering field or a field related to technology management</p> <p>Synthesize the knowledge acquired through a project carried out within a company, an application or a technical report</p>	<p>Introduction to a field of specialization</p> <p>Update your knowledge in a technical engineering field or a field related to technology management</p>

* For more information concerning the distinction between a thesis and a project, consult our website, at www.etsmtl.ca/distinction-thesis-and-projects.

After 2 study sessions at the Master's level, certain students may be admitted to a Ph.D. program if specific conditions are met, thus reducing the duration of their studies.

OUR PH.D. PROGRAM

DOCTORATE

The Ph.D. program at ÉTS offers a profile in applied research.

APPLIED RESEARCH PROFILE

- Comprises a significant research component that allows the Ph.D. student to contribute to the advancement of knowledge in the engineering field;
- Equips the student with superior competencies in the areas of synthesis, innovation, technical objectivity, socio-economic awareness and leadership.

Many of our professors are seeking students for their research projects. Visit our web site at <http://en.etsmtl.ca/en/Student-Information/Student-research-projects>.

ADMISSION CONDITIONS

- Hold a Master's degree or equivalent.

Exception

- All applicants who possess the required knowledge, appropriate research training and outstanding academic performance are eligible to be admitted pursuant to a favorable evaluation of their file.

“We pursue higher education for two reasons: differentiation and ambition. These programs allow you to stand apart in the job market, and to advance within an organization.”

**FAHD BENCHOUKROUN, holder of a Master's in
Project Management and Lecturer at ÉTS**

Program	DOCTORATE - APPLIED RESEARCH PROFILE <i>(Ph. D.)</i>
Description	Focused on the acquisition of knowledge and competencies related to research and development (R and D)
Structure	<ul style="list-style-type: none"> • 2 courses in a specialized field • Synthesis exam (3 steps) • Completion of a large-scale research project that represents a significant scientific or technological contribution
Objectives	<ul style="list-style-type: none"> • Become a researcher in the research and innovation sector • Contribute to the advancement of knowledge in your field of specialization • Acquire high-level competencies in research-innovation
Duration	<p><i>Full time:</i> 4 years, comprising:</p> <ul style="list-style-type: none"> • 1 to 2 sessions for the courses • 3 sessions for the synthesis exam (3 steps) • 5 to 6 sessions for the research project <p>Note: Students who are registered for this program are generally admitted on a full-time basis. However, it is possible to be admitted on a part-time basis by obtaining special authorization.</p>



APPLIED RESEARCH PROGRAMS

“The courses that are available at ÉTS are more technical and more specialized than those I undertook in France. You can spend more time working on your projects.”

SAMUEL RISPAL, Master’s student in Electrical Engineering

QUESTIONS ?

For information concerning the management of student files

Registrar’s office

514 396-8888

Outside of Canada: 001 + 514-396-8888

North America: 1-888-394-7888 (toll-free)

admission@etsmtl.ca

Online admission: www.etsmtl.ca/application-for-admission

For information concerning graduate and Ph.D. study programs

Student recruitment and program promotion office

514 396-8810

Outside of Canada: 001 + 514-396-8810

www.etsmtl.ca/information-request

COME AND VISIT US

In Montréal

Every year, ÉTS organizes an open-house day and various conferences related to our research projects.

Consult our website for the dates: www.etsmtl.ca.

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