

WINTER, SUMMER

AND FALL 2024

# UNDERGRADUATE CERTIFICATES AND MICROPROGRAMS



POLY MTL 150 YEARS

POLYTECHNIQUE  
MONTREAL  

# CERTIFICATES AND MICROPROGRAMS

[polymtl.ca/futur/en/certificate/programs](http://polymtl.ca/futur/en/certificate/programs)

## WHY CHOOSE A CERTIFICATE OR MICROPROGRAM?

Certificates and microprograms have the advantage of flexibility. They can be adapted to your personal situation, with courses offered in the evening and some courses offered online. Courses run for 15 weeks per term, three hours per week, for a total of 45 hours of instruction. Six more hours of coursework and weekly study time should be added per course. A full-time student can choose between 12 and 15 credits per term, while a part-time student can take between 3 and 9 credits.

Certificates and microprograms are closely linked to the needs of the labour market and are designed to lead students on new career paths. The case study approach can be quickly and easily transitioned to the workplace as it is both concrete and practical. Professors are professionals and experts who come from industry and can teach their students best practices in real-world cases. Several of these programs are offered in French at Polytechnique Montréal.

### UNDERGRADUATE CERTIFICATES 10 courses | 30 credits | full time or part time

Undergraduate certificates allow students to acquire new knowledge and skills applicable to the current job market while earning a certificate from a recognized university. Note that only the Undergraduate Certificate in Cybersecurity is offered in English; the remaining certificates are offered in French.

### UNDERGRADUATE MICROPROGRAMS 3 courses | 9 credits | part time

Undergraduate microprograms allow students to explore a new area of study and develop established skills. Note that only the Undergraduate Microprogram in Networking and Security is offered in English; the remaining microprograms are offered in French.

## STRUCTURE OF PROGRAMS

	3 credits	6 credits	9 credits	30 credits	90 credits
<b>Independent or audit students*</b>	À la carte courses				
<b>Microprograms</b>	Short undergraduate program				
<b>Certificates</b>	Undergraduate program				
<b>Cumulative Bachelor's</b>	Undergraduate degree				



\***Independent students** do not apply for a degree (a diploma). Without being admitted to a program of study, they can enroll in some courses in the regular teaching streams in certificate, bachelor's degree or graduate programs. They are subject to learning assessments for the courses in which they are enrolled.

**Audit students**, without being admitted to a program of study, can also enroll in some courses in the regular teaching streams in certificate, bachelor's degree or graduate programs. They are not subject to any evaluation process. Courses taken are marked SE on the transcript. No credit is given for this category of student.

# UNDERGRADUATE CERTIFICATE IN ANALYSIS AND OPERATIONAL CYBERSECURITY\*

FALL AND WINTER ADMISSION

 [polymtl.ca/operationalcybersecurity](https://polymtl.ca/operationalcybersecurity)



Computer hackers, cybersecurity breaches, compromised data confidentiality: these terms are mentioned with increasing frequency in news and the media. The increasing presence in our lives of information technologies and communications in general has led to the emergence of new and far-reaching security risks. Within this context, the intervention of networking and security specialists is more in demand than ever across all economic sectors. Every company and organization using computer networks, regardless of its core activities, is vulnerable to a cyberattack.

Students will learn to apply best practices to defend, protect and maintain the integrity of commercial and institutional computer networks on the Internet.



## ADMISSION REQUIREMENTS

- Hold presently or be in the process of obtaining a DEC in a field of computer science
- **OR** have successfully completed the Cyberenquête certificate program's *CY140 Piratage informatique* or *CR340E Operating Systems / CR340 Systèmes d'exploitation* course(s)
- **OR** have successfully completed the *CF160 Aspects logiciels de l'informatique judiciaire* Certificate in Cyberfraude course
- **OR** hold presently or be in the process of obtaining an AEC (Attestation of College Studies) in a field of computer science AND possess relevant experience of at least 2 years
- **OR** have completed an undergraduate microprogram in Networking and Security firmware with a cumulative GPA of at least 2.0 / 4.0

Training must meet IT requirements corresponding to course *CR010 Introduction aux technologies de l'information*.<sup>1</sup>



## PROFESSIONAL OPPORTUNITIES

- Cybersecurity analyst
- Cybersecurity advisor
- Cybersecurity investigator
- Specialist in business continuity
- Specialist in cloud and network analysis (forensics) and security concepts
- Specialist in compliance
- Specialist in cybersecurity management
- Specialist in data analysis (forensics), security architecture
- Specialist in identity and access management (GIA)
- Specialist in incident management
- Specialist in network security
- Specialist in computer penetration testing
- Specialist in security verification and compliance auditing

\*This program is also offered in French.

<sup>1</sup>The CR-010 course is only offered in French.

# UNDERGRADUATE MICROPROGRAM IN NETWORKING AND SECURITY

FALL AND WINTER ADMISSION

 [polymtl.ca/networking](http://polymtl.ca/networking)



The microprogram in networking and security will allow students to explore or perfect their knowledge in the field of computer network cybersecurity. They will become familiar with the various facets of emerging issues, whether they are risk assessment, data storage and security, cyberattack detection or strategies used by computer hackers. Domestic security and wireless networks are also addressed in the courses, along with programming languages, scripts and the security of operating systems.

This microprogram leads to an undergraduate microprogram attestation in Networking and Security.

Successfully completed microprogram courses may be transferred to a corresponding certificate.



## ADMISSION REQUIREMENTS

- Hold presently or be in the process of obtaining a DEC
- **OR** hold presently or be in the process of obtaining an AEC (Attestation of College Studies)
- **OR** have a high school (DES) or vocational (DEP) diploma AND at least two years of experience

## ONLINE COURSES

### WHY SHOULD YOU PURSUE YOUR STUDIES ONLINE?

Online courses offer flexibility, expertise and variety. Several are given asynchronously so that you can attend class when it is convenient for you. Polytechnique Montréal also offers the flexibility to choose your own pace of study. You can pursue certificate programs full time (12-15 credits per semester) or part time (3 to 9 credits per semester). The choice is yours in establishing your own work-study-life.

### HOW DO ONLINE COURSES WORK?

There are two types of online courses: those that are offered synchronously and those that are offered asynchronously.

When you take a course offered **synchronously**, you must connect at the same time as the lecturer. The courses are recorded and you can view them again at any time throughout the semester.

When you take a course offered **asynchronously**, the course has been pre-recorded. The lecturer makes it available at the time posted for your course and you can view it when you wish.

To take part in online courses, you will need a webcam and an external microphone or one that is integrated into your computer, and a high-speed Internet connection.

# CUMULATIVE BACHELOR'S DEGREE

 [polymtl.ca/futur/en/certificate/programs](https://polymtl.ca/futur/en/certificate/programs)



## CUMULATIVE BACHELOR OF SCIENCE DEGREE

By successfully completing three certificate programs totalling 90 credits, a student can earn a Bachelor of Science degree. The Bachelor's diploma will make mention of the three certificates and the date on which each was completed. The Bachelor of Science earned cumulatively in this manner is not recognized by the Ordre des Ingénieurs du Québec. Note that only the Undergraduate Certificate in Cybersecurity is offered in English; the other certificate programs are offered in French.



## CUMULATIVE BACHELOR OF SCIENCE DEGREE WITH CYBERSECURITY SPECIALIZATION

A cumulative Bachelor's degree with a specialization in Cybersecurity is available to students who have successfully completed three certificates addressing various aspects of cybersecurity. Note that only the Undergraduate Certificate in Cybersecurity is offered in English; the remaining Certificates in Cybersecurity are offered in French.

## CONDITIONS FOR A CUMULATIVE BACHELOR'S DEGREE

To be eligible for a cumulative Bachelor of Science, all the following conditions must be met:

- The student must have successfully completed three certificates with combined courses totalling a minimum of 90 distinct credits; credits in one course can only be counted once even if they were applied to the completion of two other certificates leading to a Bachelor of Science degree.
- At least two of these certificates must have been granted by Polytechnique Montréal. Neither a skills-upgrading certificate for graduates of foreign engineering schools, nor the certificate in engineering can be applied to a Bachelor of Science.
- Graduates of certificate programs not taken at Polytechnique Montréal, the Université de Montréal or HEC Montréal must make a recognition of prior learning request, which can only be submitted after the certificate program has been successfully completed (see article 18.3 on admission requirements and academic rules for certificates).
- No more than a maximum of 10 years can have elapsed between the successful completion of the first certificate and the successful completion of the last certificate.

## PROGRAM COMPOSITION

A cumulative Bachelor's degree with a specialization in Cybersecurity is earned by completing at least two of the following programs offered at Polytechnique Montréal:

- Certificat en architecture et gestion de la cybersécurité (in French)
- Certificat en cyberenquête (in French)
- Certificat en cyberfraude (in French)
- Certificat en internet industriel des objets (in French)
- Undergraduate certificate in analysis and operational cybersecurity (in English) or Certificat en analyse et cybersécurité opérationnelle (in French)

The third certificate can be completed at Polytechnique Montréal or at:

HEC Montréal:

- Certificat en analyse de la sécurité de l'information et des systèmes (in French)

Université de Montréal:

- Certificat en criminologie (in French)
- Certificat en enquête et renseignement (in French)
- Certificat en informatique appliquée (in French)
- Mineure en criminologie (in French)

# COST OF STUDY

## TUITION FEES AND FINANCIAL AID 2023-2024

 [polymtl.ca/futur/en/certificate/finances](https://polymtl.ca/futur/en/certificate/finances)



### APPROXIMATE ANNUAL COSTS 2023-2024

The table below provides an estimate of education costs per semester while attending Polytechnique Montréal. All costs are indicated in Canadian dollars and are estimates only for information purposes. Costs may change without notice. Tuition and related fees are revised each year.

Certificates (30 credits) and microprograms (9 credits)					
Canadian citizen and permanent resident	3 credits / session	6 credits / session	9 credits / session	12 credits / session	15 credits / session
Canadian citizens; Québec residents <sup>1</sup>	\$500	\$900	\$1 200	\$1 600	\$1 900
Canadian citizens; non-residents of Québec	\$1 200	\$2 100	\$3 100	\$4 100	\$5 000

<sup>1</sup> To determine if you are considered a resident of Quebec by the ministère de l'Éducation et de l'Enseignement supérieur, consult: [education.gouv.qc.ca](https://education.gouv.qc.ca).

## FINANCIAL AID AND BURSARIES

 [polymtl.ca/aide-financiere](https://polymtl.ca/aide-financiere) (in French only)

Academic and financial success go hand in hand because a realistic budget can help ease financial stress during the school year. The Service aux étudiants de Polytechnique can help you create a realistic budget through the following services:

- Information about the ministère de l'Éducation et de l'Enseignement supérieur's bursary and loan programs
- Various workshops and information sessions about financing options (e.g., submitting your first financial aid request; financial aid requests with Emploi-Québec)
- Information about internal bursary/scholarship programs, such as from Fondation et alumni de Polytechnique Montréal
- Information about external bursary/scholarship programs

Each year, Polytechnique students receive close to \$3 million in internal and external scholarships based on academic excellence, community involvement, academic commitment, and more.

# ADMISSIONS

 [polymtl.ca/futur/en/certificate/admission](https://polymtl.ca/futur/en/certificate/admission)

## 1. TO SUBMIT AN APPLICATION, YOU MUST:

- Select a certificate program.
- Consult the admission requirements (in French only).
- Complete your application in the online admissions portal and pay the fee for the review of your file.
- Submit all required documents by mail or in person with the Registrar at Polytechnique Montréal. Your application will be evaluated only once the Registrar has received all the required documents.
- Check the status of your application in the online admissions portal (under the Your Student File tab).

### Deadline to submit an application:

STATUS IN CANADA	Fall semester (September-December)	Winter semester (January-April)	Summer semester (May-August)
Canadian citizens and permanent residents	June 1*	November 1*	February 1*
International students	Not eligible	Not eligible	Not eligible

\*Dates indicated are suggested dates to submit an application.

## 2. ONCE YOU RECEIVE YOUR ADMISSION LETTER:

- Please confirm your acceptance of the offer of admission as quickly as possible by accessing the online admissions portal and indicating your reply to the offer under the Your Student File tab.
- If you have been accepted, but you would like to make changes to your application or defer your admission to a subsequent semester, you can make a request by e-mail to [admission.certificat@polymtl.ca](mailto:admission.certificat@polymtl.ca). Make sure to include your first and last name, date of birth and student number.

## 3. START OF CLASSES

Winter semester 2024	Summer semester 2024	Fall semester 2024
January 8, 2024	May 6, 2024	August 26, 2024



# TO FIND OUT MORE

[polymtl.ca/futur/en](http://polymtl.ca/futur/en)



## START A CONVERSATION

### ✓ WITH OUR STUDENT AMBASSADORS

Talk to our ambassadors to learn all about the student experience.

[polymtl.ca/chat](http://polymtl.ca/chat)

### ✓ WITH OUR COUNSELORS

Ask our advisors about study programs and the admissions process.

[polymtl.ca/chat](http://polymtl.ca/chat)

[futur@polymtl.ca](mailto:futur@polymtl.ca)

514 340-4928

## PARTICIPATE IN OUR INFORMATION ACTIVITIES

### ✓ OPEN HOUSE

Discuss with members of the Polytechnique Montréal community and discover the programs offered, student life and the study environment.

[polymtl.ca/openhouse](http://polymtl.ca/openhouse)

### ✓ OTHER ACTIVITIES

Whether in Quebec or abroad, Polytechnique Montréal invites you to a host of activities. Consult our program!

[polymtl.ca/activities](http://polymtl.ca/activities)

## DISCOVER YOUR FUTURE STUDY ENVIRONMENT

### ✓ IN-PERSON GUIDED TOUR

Discover Polytechnique Montréal with a current student.

[polymtl.ca/activities](http://polymtl.ca/activities)

### ✓ VIRTUAL VISIT

Explore the pavilions, common spaces, laboratories and teaching spaces.

[visitevirtuelle.polymtl.ca](http://visitevirtuelle.polymtl.ca)



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