



6 SEMESTERS
2670 hours

DEC
420.B0

Launch your video game programming career at LaSalle College! Our computer game programming courses will give you the tools you need to become a successful video game programmer.

When someone asks what language you speak, you're not sure whether to say Java or C++? If you want to learn how to code an engine to bring video games to life, this DEC program is for you. Montréal is a major hub in the video game industry, so it's the perfect place to immerse yourself in this booming field. There is an urgent need for programmers in several industries, including that of video games.

The Computer Science Technology - Video Game Programming training program was developed with studios ranked among global video game leaders. You'll acquire the knowledge necessary to secure a choice position in the video game industry. You'll be able to help design a Triple-A game, join a multidisciplinary team from an independent studio, produce a mobile app or even develop your own video game.

This video game programmer training uses the most popular programming tools in the industry (Unity, Unreal, C/C++/C#, Gameplay), allowing you to learn programming fundamentals, as well as the particularities specific to video games. You will also learn how to develop your communication skills in relation to the specific field of video games. Level up with our computer game programming courses!

Training Objective

The Computer Science Technology DEC, with a Video Game Programming profile, trains computer technicians specialized in video game programming. Our training allows you to join an innovative multidisciplinary team.

Methods of Instruction

On-campus

- At the Montréal and Laval campuses

Real-time remote learning

- Training provided entirely in distance mode, with a teacher and in real time (synchronous)
 - The internship (semester 6) could be done in a company with the virtual supervision of a teacher

Admission Criteria

Have obtained a Secondary School Diploma (DES) and completed the following program prerequisite:

- Mathematics: TS, SN Secondary IV or CST 5 (Math 436 under the old plan), or

Have obtained a Professional Studies Diploma (DEP) and completed the following courses:

- Language of Instruction from Secondary V
- Second Language from Secondary V
- Mathematics: TS, SN Secondary IV or CST 5 (Math 436 under the old plan), or

Have obtained an equivalent education or an instruction deemed sufficient. Every case will be analysed by the College.

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Concentration Courses

- Applied Mathematics (60 h)
- Elements of Data processing for Video Game (75 h)
- Structured Programming (90 h)
- Profession and Industry (60 h)
- Applied Mathematics for Video Game (60 h)
- Object Oriented Programming and Concepts I (75 h)
- Information System and Project Methodologie I (90 h)
- Object Oriented Programming and Concepts II (75 h)
- Game Engine I (75 h)
- Databases (90 h)
- Operating Systems (75 h)
- Game Engine II (90 h)
- Advanced Data Structure (75 h)
- Applied Statistics for Video Game (60 h)
- Game Engine III (90 h)
- Internet Programming I (90 h)
- Database Development (75 h)
- Information System and Project Methodology II (75 h)
- Graphical Environment (75 h)
- Networks Elements (75 h)
- Internship (525 h)

* The College reserves the right to substitute certain courses.

General Education Courses

- 3 Physical Education courses (90 h)
- 3 Humanities courses (150 h)
- 4 Literature courses (240 h)
- 2 Second Language courses (90 h)
- 2 complementary courses (90 h)

Prospective Student Profile

- You are logical and have a cartesian mind
- You want to learn the fundamental concepts of video game programming
- You would like to code the engine that will bring the video game to life
- You are an avid gamer and want to combine passion and work

Diploma

This program leads to a Diploma of College Studies (DEC) in Computer Science Technology (420.B0), recognized by the ministère de l'Éducation et de l'Enseignement supérieur (MEES).

Holders of this diploma can either begin to work in their field or pursue university studies.

Bring Your Own Device

The use of a laptop computer is mandatory. This laptop must be equipped with the Windows operating system to work with all software. Standard or student license software must be installed when requested by teachers.

The following features are required for PCs:

- CPU: Intel i7 minimum
- RAM: 8 GB minimum
- Hard drive: HDD 512 GB minimum
- Graphics card: GTX 2 GB minimum
- Connectivity: USB 3.0, NIC LAN and Wi-Fi

You will need a USB-RJ45 adaptor if your laptop doesn't have a network jack.

Required software: Office suite.

Career Prospects

- Game designer
- Application quality assurance
- Engine programmer (Unity and Unreal), C/C++/C#, Gameplay, Animation
- Game tester
- 3D designer
- Object-oriented application development (.Net, Java, C++)
- Application quality assurance
- IT advisor
- User interface design
- Application tester
- IT trainer

You can also further your software engineering education at the university level. Certain courses may even be credited.