Computer Science Technology

O'Sullivan College of Montreal

Specialization in Cybersecurity and Cloud computing

DCS 420.B0 · Offered on campus · 3-year program · New · Offered in English

Become an Expert in Cybersecurity

As computing is a growing and innovative field, it is important to stay at the cutting edge of computer network technologies and infrastructure. Nowadays, all businesses rely on digital technologies, exponentially increasing the demand for IT specialists. This DCS is perfect for someone wanting to stand out in the IT field with specialized skills and certifications.

This specialized six-semester program (3 years - 2 670 hours) includes an eight-week internship (270 hours) in a company. The program aims to prepare students to develop the knowledge and skills required to design, configure, and manage a network's infrastructure and its security, as well as maintain all IT-related operations.

This is a technical program, that prepares you to enter the workforce right away, or continue your university studies.

Our program empowers students to stay ahead and equip themselves for a rewarding career in network administration and Cybersecurity. Our program covers various aspects of the specialization with a focus on network management, Cybersecurity, and cloud computing. The program is built to ensure that students qualify for many in-demand **networking and Cybersecurity jobs through a well-planned curriculum that makes it easy to follow, even for someone with no experience.**

Professional Opportunities:

As a person working in Network Management and Cybersecurity, you will be able to practise your profession in small, medium, or large-sized companies and in all sectors and domains, including high-technology industries, such as:

· Local Network Administrator
· System Administrator
· Computer Network Technician
· Networking and system administrator
· IT consultant
· User Support and IT Specialist
· Network Security Technician

The government of Quebec funds a portion of the tuition fees for students in the field of Computer Science and Networks, which started in the fall of 2022. For more details, visit the Department of Higher Education website, under the Quebec Perspective Scholarship Program section. (PBPQ).

Course Curriculum

Hours	Course
75 hrs	Applied Mathematics
75 hrs	Client based operating system
75 hrs	Open-source operating system
60 hrs	Professional integration
60 hrs	Technical support
75 hrs	Server based operating systems
60 hrs	Cloud-based computing
75 hrs	Advanced Open-source operating systems
75 hrs	Implementation of directory services
60 hrs	Introduction to Networking
75 hrs	Programming Languages I
75 hrs	Cloud-based architecture and services
60 hrs	Introduction to Security
75 hrs	Network Services
75 hrs	Email Server
75 hrs	Switching, routing and wireless essentials
75 hrs	Network security
75 hrs	Programming Languages II
75 hrs	Implementing an enterprise network I
75 hrs	Enterprise networking, security, and automation
60 hrs	Network monitoring
75 hrs	Voice over IP
75 hrs	Implementing an enterprise network II
105 hrs	Project
270 hrs	Internship

*Within the program of study, students will complete an 8-week (270 hours) internship in the industry. The college assists each student with their internship search.

General Education

The general education includes 2 courses in French as a second language, as well as the mandatory courses which are 3 courses in Humanities, 4 courses in Literature, 3 courses in Physical Education and 2 complementary courses.

The College is a member of the prestigious Cisco Networking Academy. Cisco is a global networking equipment company that has developed several networking training courses used around the world.

The College is also a member of the global Amazon Web Services (AWS) community. AWS specializes in Cloud Computing and Cybersecurity, offering services and curriculums in high demand and highly valued by employers.

These partnerships with Cisco Networking Academy and Amazon Web Services provide students with unique, unparalleled tools and skills that will allow them to stand out in the job market.

Acquired skills :

· Network Interconnections and Cloud computing (Exchange, Cloud (IaaS, SaaS, PaaS), Azure, Network implementation and IP Telephony)
· Operating Systems (Windows, Linux, Server, DNS, DHCP, Active Directory, Virtualisation
· CISCO (CCNA, CCNP)
· Network and IT Security (Cryptography; Computer network protection devices; Security of software and applications; Ethical hacking tools; Intrusion detection and prevention and more)
· Development, Scripting and Object-Oriented Programming (Bash, PowerShell, and Python)

Certifications, an added bonus:

The program content, hands-on learning activities and industry standard technologies prepare the students for various high in-demand certifications such as **CCNA (Cisco Certified Network Associate), CCNP (Cisco Certified Network Professional), CompTIA (A+), LPIC (Linux essentials and security essentials), Azure, IBM and many more.**

The college is a member of the prestigious Cisco Networking Academy. Cisco is a global networking equipment company that has developed several training courses used in networking around the world.

The program offered at the college prepares students for the certification exams and will help you increase your chances of becoming a certified professional.

Software:

Microsoft Windows, Windows Server, VMware, Hyper-V, Linux et antivirus

Programming languagesde programmation:

Python, Bash et PowerShell

Protocols:

DHCP, DNS, TCP/UDP, IPv4, IPv6, Proxy, VPN, CCNA/CCNP (OSPF, EIGRP et BGP)

Equipment required

Students are required to bring their own laptop. Please consult our website for the most up to date requirements. A computer can never be replaced by a cell phone.

CISCO · **aws academy**

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