In a rapidly changing IT industry, networking professionals will continue to be in high demand over the next decade. As computer networks become more prevalent, networking professionals can find challenging work in a variety of industries and at all levels of an organization.

Carleton University and Algonquin College jointly offer a unique combined Bachelor of Information Technology (BIT) degree and advanced technology diploma. The Network Technology (NET) program of the BIT provides a multidisciplinary education, as well as practical experience, in areas such as remote access networking, IT security issues, network simulation and modeling, and the physics of communications. The NET program is designed to keep pace both with your needs and those of industry.

PROGRAM OVERVIEW
Information networks continue to grow at a fast pace and will play an essential role in tomorrow’s society. Expansion of these networks and the evolution of the technology that supports them will require a new breed of professionals with sophisticated knowledge, skills and hands-on training. The NET curriculum responds to this by offering a unique blend of computer and network technology courses with courses in physics, mathematics, communications, and business.

The NET program focuses primarily on the design, installation, operation and management of future complex information networks.

ADVANTAGES OF THE PROGRAM
As a student of today and a network professional of tomorrow, you need a well-rounded education and a blend of theoretical knowledge and practical experience on which to build your career. You will move from design, installation and operation of advanced IT networks to reconfiguring networks to meet users’ needs and analyzing the role of IT networks in an organization.

The NET program also prepares you for the CCNA (Cisco Certified Network Associate) and CCNP (Cisco Certified Network Professional) certifications, as well as CCIE (Cisco Certified Internetwork Expert) certification following 2 years industrial experience. These certifications demonstrate your knowledge and skills in the management of small size to large scale networks. They bring valuable expertise and are considered as a huge asset by employers.

CO-OPERATIVE EDUCATION
A flexible co-op option allows you to gain at least 12 months of valuable work experience while studying for your degree. Co-op opportunities help you develop personal and professional skills in a number of settings, such as government agencies, technology companies and other private sector industries.

FUTURE OPPORTUNITIES
Successful completion of this four-year program gives you both a university bachelor’s degree and an advanced college diploma. This degree/diploma combination opens the door to a broad range of career opportunities with network design and installation companies, governments, finance companies, telecom operators, system integrators, educational institutions, private training companies and many other business enterprises requiring network design, management and operation.

Graduates from the Network Technology program also have excellent opportunities to pursue Master’s and PhD programs at Carleton University and at other universities.

HOW THE PROGRAM WORKS
Once registered for this program, you will be considered a student at both Algonquin and Carleton. You will benefit from the outstanding facilities, teaching staff, resources and expertise that both institutions offer.

Note: The program has been designed for full-time studies; to ensure the necessary student/teacher interaction, enrolment in the program is limited.
LABORATORY FACILITIES
State-of-the-art laboratory facilities and equipment are available at both institutions and are dedicated to the students in the program. Wireless network connections are also available if you wish to use your own laptop computer on campus. Because of the hands-on nature of this program, the number of students accepted each year is limited.

TUNED INTO INDUSTRY
Both institutions regularly consult with representatives from related industries in order to track changing trends in the IT field. This also helps you to build contacts for summer and future permanent employment.

THE CAPITAL ADVANTAGE
There are few better places in which to study and live than Ottawa, the nation’s capital. With more than 1,800 high-technology companies and a wide range of governmental departments, non-profit organizations and research institutions, NET graduates are well situated to find employment in network planning, design and administration.

NET COURSES
To graduate from this program, you will need 20.0 credits, generally completed over four years. The required courses include:

> Year 1
- Problem Solving
- Computer Technology Basics
- Networking Fundamentals
- Assembly and Machine Language
- Network Routing
- Mathematics I and II for NET
- Physics for Information Technology I and II
- Elective

> Year 2
- Introduction to Statistics for NET
- Intermediate Networking
- Introduction to Business
- Wide Area Networking
- Desktop Operating Environments
- Intermediate Programming
- Basics of Transmission Systems
- Communication Skills for NET
- Marketing in the IT Sector
- Linux Networking

> Year 3
- Database Concepts and SQL
- Real-time Systems
- Web Programming
- Advanced Network Switching
- IP Architectures and Solutions
- Data Structures
- Network Management and Measurements
- Network Security
- Wireless Networks
- Advanced Network Routing

> Year 4
- Emerging Network Technologies
- Network Simulation
- Computer Systems Architecture
- Troubleshooting IP Networks
- Networked Applications
- Secure Mobile Networking
- Multimedia Networking
- Arts and Humanities Elective
- Network Technology Project
ADMISSION REQUIREMENTS
To be eligible for admission to the first year of the Bachelor of Information Technology in Network Technology, Ontario students must have an Ontario Secondary School Diploma (OSSD) with a minimum of six 4 U/M courses. Your six courses must include:

- One 4U Math credit

For all applicants outside of Ontario, please visit admissions.carleton.ca/requirements.

For information on Interactive Multimedia and Design (IMD) or Photonics and Laser Technology (PLT), the other program choices within the BIT degree/diploma, please consult the sources listed. Separate brochures on the IMD & PLT programs are also available.

Please note that the BIT degree is not structured to accommodate part-time studies.

CONTACT US
For more information on the Network Technology program, visit the BIT website at bitdegree.ca, consult the Carleton University Undergraduate Calendar at carleton.ca/cuuc, or contact Carleton University or Algonquin College.

For admission information:

CARLETON UNIVERSITY
Undergraduate Recruitment Office
315 Robertson Hall
1125 Colonel By Drive
Ottawa ON K1S 5B6
Canada
Tel: 613-520-3663
Toll-free in Canada: 1-888-354-4414
Fax: 613-520-3847
Email: liaison@carleton.ca
Website: carleton.ca/admissions

ALGONQUIN COLLEGE
1385 Woodroffe Avenue
Ottawa ON K2G 1V8
Canada
Tel: 613-727-0002
(General Inquiries)

BIT NET PROGRAM
For information on the BIT program
Email: infoNET@bitdegree.ca
Website: bitdegree.ca