The Program
To compliment their rigorous technical training, in each semester our students learn a key employable skill such as interpersonal skills, business communications, teamwork, ethical decision making and human resources issues.

The Content
In this laptop-required program, there is an emphasis on design, installation, troubleshooting and maintenance of microcomputers and CISCO networking hardware. Installation, configuration and administration of Windows, UNIX and Linux operating systems are also covered. Advanced topics include network optimization and management, security, web support, communication protocols, database servers, mail servers, systems administration, virtualization and mobile technologies.

The Outcomes
Graduates have the skills to test for certifications:
- Cisco Certified Network Associate (CCNA)
- Cisco Certified Network Professional (CCNP)
- Several Microsoft Certifications and Linux

Co-op Progression:

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<tr>
<th>September Intake</th>
<th>Sep-Dec</th>
<th>Jan-Apr</th>
<th>May-Aug</th>
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<td>Year 1</td>
<td>Acad. 1</td>
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<td>Year 2</td>
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<td>Work 1</td>
<td>Acad. 4</td>
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<td>Year 3</td>
<td>Work 2</td>
<td>Acad. 5</td>
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Skill Levels
Level One
- Analyze and resolve information technology problems through the application of systematic approaches and diagnostic tools
- Analyze, plan, design, install and implement computer systems

Level Two
- Analyze, plan, design and implement Operating Systems (Microsoft, Linux) and networking solutions
- Install, configure, troubleshoot, monitor, maintain, upgrade and optimize computer systems
- Plan, develop, administer databases and be responsible for data storage to ensure the integrity of information

Level Three
- Use a variety of scripting tools and languages to automate routine tasks
- Apply and appraise security issues with a view to ongoing maintenance, development and improvement of organizational security
- Explore the concepts of server and data centre virtualization
- Use or reference commonly used devices such as Blackberry, iPhone, Android, Windows Mobile, etc.
- Articulate, defend and conform to workplace expectations found in information
Course Outline
*For the official Degree Audit, please see Registrar’s Office*

**Level 1** – Take all of the following Mandatory Courses
- BUSI-1060 Strategies for Success
- INFO-1135 Networking Fundamentals - CCNA
- INFO-1150 Programming Fundamentals
- INFO-1119 Operating Systems/Hardware Fundamentals
- INFO-1120 Database Fundamentals

Group 2 – Take WRIT-1043 OR WRIT-1034
WRIT-1043 Reason & Writing I for IT
WRIT-1034 Reason & Writing I for EAP

**Level 2** – Take all of the following Mandatory Courses
- INFO-1167 Business at the Speed of Light
- INFO-3065 Hardware II
- INFO-3092 LAN Switching & Wireless - CCNA
- INFO-1123 Windows Active Directory
- INFO-1125 Linux Operating Systems
- MGMT-3052 Understanding Workplace Behaviours

**Level 3** – Take all of the following Mandatory Courses
- INFO-1124 Computer Security Concepts
- INFO-3101 Windows Mail & Web Servers
- INFO-3014 Database Servers
- INFO-3075 Windows Network Services
- INFO-3100 Routing Protocols - CCNA
- COMM-3047 Communication for IT Professionals
- COOP-1020 Co-op Ed Employment Prep

**Level 4** – Take all of the following Mandatory Courses
- Gen Ed – Take a 3 credit Gen. Ed. elective course
- INFO-3098 Security: Vulnerabilities
- INFO-3102 Windows System Services
- INFO-3103 Linux Operating Systems - Inter
- INFO-5084 WAN Technologies - CCNA
- MGMT-3036 Prof Development – Career Planning

**Level 5** – Take all of the following Mandatory Courses
- INFO-3094 Security: Firewalls
- INFO-5081 Advanced Routing - CCNP
- INFO-5082 Multilayer Switching - CCNP
- INFO-5096 Managing & Budgeting Tech'I Projects
- INFO-5097 Windows System Adm & Mobile Tech
- INFO-5098 Virtualization & Data Management

**Level 6** – Take all of the following Mandatory Courses
- Gen Ed – Take a 3 credit Gen. Ed. elective course
- INFO-3099 Scripting for Systems Administration
- INFO-5071 Linux Operating Systems - Adv
- INFO-5090 Network Troubleshooting - CCNP
- INFO-5099 Voice Over IP & QoS
- INFO-5105 Applied Technical Projects

Requirements:
- Take two 3-credit General Education (Gen.Ed.) elective courses
- Program Residency

Students must complete a minimum of 33 credits in this program at Fanshawe College to meet the Program Residency requirement and graduate from this program.

Why Should You Hire a Co-operative Education Student?

Many employers feel today’s graduates have no concept of the “real” world of work; we are providing this experience in Co-operative Education. Any job that gives the student related background in your business would be suitable.

Eligible employers can claim a tax credit for each qualifying work placement for up to $3000.

Co-operative Education students are ultimately looking ahead to careers in businesses such as yours. For this reason they are not expecting to simply put in time on the job, but are eager to get involved and make a worthwhile contribution. Participation in co-operative education also gives the employer the opportunity to try out a student’s capabilities without obligation or commitment to permanent employment.

This work oriented educational system integrates classroom study and paid, on-the-job work experience, by alternating periods in College with periods of employment by co-operating organizations.

The work terms are spaced out through the academic program and students will be at various academic levels in successive work terms. The working experience will ideally increase in difficulty and responsibility as the student progresses academically. However, the College realizes it is often difficult in practice to do this.

It is essential that the work experience be a normal one; that the student be treated like a regular company employee so that a realistic picture of the working environment in that field may be obtained. Perhaps most important is what students gain from the working experience, i.e. an attitude for success and the ability to get along with co-workers at all levels.

fanshawec.ca/coop