

## Computer Systems Technology

A Three-Year Ontario College Advanced Co-operative Education Endorsed Diploma

1001 Fanshawe College Blvd. – Room D1063  
London, ON N5Y 5R6  
Phone: 519-452-4294 Fax: 519-452-4572  
[coop@fanshawec.ca](mailto:coop@fanshawec.ca)



### 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:

September Intake			
	Sep-Dec	Jan-Apr	May-Aug
Year 1	Acad. 1	Acad. 2	Off
Year 2	Acad. 3	Work 1	Acad. 4
Year 3	Work 2	Acad. 5	Work 3
Year 4	Acad. 6		

### 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 on-going 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 Fund
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'l 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.

