



PROGRAM OUTLINE

Information Technology With Co-op, Network Administration

PROGRAM DESCRIPTION

This **Co-op diploma** program focuses on preparing you to work as a network administrator requiring the application of current industry policies, practices, procedures and tools.

LEARNING OBJECTIVES

Upon successful completion, students will have demonstrated the ability to apply theoretical knowledge and hands-on skills in providing end-user support, including day-to-day administration, maintenance, and support of computer systems and networks.

ADMISSION REQUIREMENTS

- Grade 12 graduate or mature student status (British Columbia, 19 years or older)
- Meet minimum English language proficiency requirements.

PROGRAM DURATION

Total instructional hours	1040
Total Co-op hours	960
Total program hours	2000
Total program length (weeks)	96

GRADUATION REQUIREMENTS

- Successful completion of all program courses.
- Successful completion of program coop.

CAREER OPPORTUNITIES

Upon successful completion graduates will be able to secure employment in businesses of all sizes, as, for example, help desk and technical support, data center operators, network administrators and network support analysts.

PROGRAM BREAKDOWN

Course No.	TERM 1	Hours
ICR100	Information Technology Essentials	40
ICR110	Problem solving and analytical thinking	40
ICR120	Markup Essentials	60
ICR130	Scripting for Web Development	60
ICR140	Databases Design and Modeling	40

Course No.		Hours
ITN200	Microsoft Windows Client Products	80
ITN210	Preparing for the A+ Exam	80
ITN220	Preparing for the Network Exam	80
ITN300	Microsoft Windows Active Directory Services	80
ITN310	Microsoft Windows Network Infrastructure	80
ITN320	Microsoft Windows Server Products	80
ITN400	Markup and Data Serialization	40
ITN410	Introduction to Cisco Routers	160
ITN420	Network & Online Security	40
CAP200	Co-op Prep. Workshop	80
Co-op		960

DELIVERY METHODS

- In-class instruction
- Distance education
- Combined delivery (both in-class and distance)

ICR100 Information technology Essentials

This is an introduction to the basics of computer hardware, especially those components that are used frequently by programmers including RAM and CPU. Students will also be introduced to operating systems.

ICR110 Problem Solving and Analytical Thinking

Understanding the language, grammar and syntax of a programming language is key to the application of that language in solving programming problems. All programming languages have been created around a fundamental set of language theories and conventions. This course is an introductory course to the theory and practice of programming and programming logic. This course does not introduce the student to a specific programming language but rather to the basic language, grammatical, and syntactical constructs and logic found in all programming languages. Students will solve programming problems using pseudo-code.



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ICR120 Markup Essentials

This course will introduce students to web page and simple website infrastructure. Students will construct simple webpage and websites using authoring tools, HTML 4.0 and JavaScript. Students will learn basic programming principles and best practices. Students will use their programming skills to enhance a web site they have developed by building simple interactive functionality into their webpages using JavaScript.

ICR130 Scripting for Web Development

Students will learn how to create all of the key components required in a 21st century commercial web site, learning how to apply HTML, CSS, and JavaScript skills in a commercial context.

ICR140 Databases Design and Modeling

This is an introductory database course. You will be introduced to the role and function of databases and to accepted dbase design and development methodologies. You will also be introduced to database software manipulation systems using Classic ASP and Microsoft Access tools.

ITN200 Microsoft Windows Client Products

This course prepares students to write the 70-680 Microsoft exam. MCP certification confirms that the holder has a fundamental understanding of different versions of Windows Operating systems being used by industry and is able to support and troubleshoot networks built based on Microsoft Operating systems. This course also provides an overview of all Microsoft client operating systems.

ITN210 Preparing for the A+ Exam

An A+ certification confirms that the holder has a fundamental understanding of the most popular hardware and software technologies being employed by industry and is able to support and troubleshoot large complex IT deployments. This course prepares you to write the 801 and 802 Comptia A+ exams.

ITN220 Preparing for the Network Exam

This course will prepare you for Network+ Comptia certification. It is the next logical step and builds on A+ providing you with the necessary knowledge to move from a technician status toward becoming a network administrator.

ITN300 Microsoft Windows Active Directory Services

This course prepares students to write the 70-640 Microsoft exam, which covers configuring Windows Server 2008 Active Directory. In this course students will learn how to install, administer, monitor and troubleshoot a Windows 2008 Active Directory services.

ITN310 Microsoft Windows Network Infrastructure

This course prepares students to write the 70-642 Microsoft exam - Configuring Windows Server 2008 Network Infrastructure. In this course students will learn how to design and create subnets, make Windows networks secure using firewall technologies and protocols, setup sharing for files and printers and configure DHCP and DNS.

ITN320 Microsoft Windows Server Products

This course prepares students to write the 70-646 Microsoft exam, which is part of the Windows Server 2008 Administration path. The course will also provide students with an overview of all Microsoft server operating systems, students will learn how to install, administer, monitor and troubleshoot a Windows 2008 server.

ITN400 Markup and Data Serialization

Extensible Markup Language is a markup language that defines a set of rules for documents in a format which is human-readable and machine-readable. XML is a software- and hardware-independent tool for storing and transporting data. In this course students learn how to create XML files and how to extract XML data in a programming language. Students also learn to transfer data in between computers using XML files.

ITN410 Introduction to Cisco Routers

Many networks regardless of their size or purpose use Cisco routers as part of their backbone and network infrastructure to move all data types. In this course students will learn how to install, configure, program and trouble shoot CISCO switches and routers.



PROGRAM OUTLINE

ITN420 Network & Online Security

In a hyper-interconnected world where the majority of transactions occur via web or app enabled technologies, data and application security is of strategic importance to companies of all sizes. In this course students will learn methods for securing servers, services and applications running on Windows 2008 Server.

CAP200 Co-op Preparation Workshop

This course is to get students familiar with the work culture, communication, employer – employee relationship and all necessary soft skills that are needed to secure a job. This course is spread over all terms and teaches students different levels of skills needed to obtain and keep a job.

CO-OP

This Coop will provide you with the opportunity to apply acquired theory and skills in a practical business setting. You will gain real world experience working on projects as a member of a team with project deliverables and deadlines.

Methods of Evaluation

Course grading is indicated on each course outline. Generally assessment will consist of quizzes, exams, and assignments.

Required Course Material

Not all courses may have textbooks. Textbooks are listed on the course outline. Textbooks may not be available through the college.

Equipment

Computer and requisite software are provided at the college. No other equipment is required unless otherwise indicated on the course outline.

Program

Course currency and relevancy may change depending on the requirements of industry. The school may make changes at any time. Changes will be effective when made.

Other

For proof of *English Language Proficiency* please refer the Student Handbook.