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ABSTRACT

                This paper reports on the Canadian college system's
collaboration with industry and community services in the development and
delivery of non-credit e-commerce courses offered through continuing
education departments at community colleges and institutes of technology. The
paper argues that, in today's changing economy, the accelerated need for
skills training and retraining may be most widely felt among students. The
paper details the offerings at Canadian colleges by region: British Columbia
and Yukon Region; Alberta and Northwest Territories Region; Saskatchewan,
Manitoba, and Nunavut Region; Ontario Region; Quebec Region; and Atlantic
Region. Highlights of these offerings are as follows: New Brunswick Community
College's Saint John Campus offers a two-year diploma degree in Business
Technology, while other programs, such as Marketing and Office Technology,
are being permeated with courses related to e-commerce. The Cegep regional de
Lanaudiere offers five college programs in the field of electronic commerce.
There is a computer science diploma, and four certificates in other areas.
The Assiniboine Community College in Manitoba is seeking funding approval for
a two-year diploma program in Business Computing. The program will be offered
jointly by the Business and Tourism Division and the Information Technologies
Division. In addition, colleges are involved in conferences connected to e-
commerce, either as hosts, presenters, or participants. (AUTH/NB)

ELECTRONIC COMMERCE
CANADIAN COMMUNITY COLLEGES
AND
INSTITUTES OF TECHNOLOGY

November 2001

Prepared by
The Association of Canadian Community Colleges
(www.accc.ca)

for
The Canadian Electronic Business Opportunities Roundtable
In conjunction with the Electronic Commerce Branch of Industry Canada

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Introduction

The Secretariat of the Association of Canadian Community Colleges (ACCC) participates in the Canadian E-Business Opportunities Roundtable, a private sector initiative formed in 1999 to develop a strategy for accelerating Canada's participation in the Internet economy. A sub-committee of the Roundtable focuses on human resources and how the modern day workforce is being prepared to meet the ongoing challenges of the electronic revolution's role in business. For any enterprise to ensure its competitive edge in the marketplace, it must be prepared to be electronically adept. Those businesses able to enhance their profiles in and through cyber space will assume the capital advantage.

The accelerated need for skills training and retraining may be most widely felt amongst the users of the college system in today's changing economy. As such, Industry Canada contracted ACCC to determine the extent to which electronic business programs and practices are incorporated throughout the college network in Canada. Through mobilizing its affiliation with its member institutes, the ACCC Secretariat conducted a survey, the results of which are contained in this report.

A similar study already exists on the research and course offerings related to electronic commerce in Canadian universities. The college level study expands the view of post-secondary offerings in this field in Canada. It contributes to the framework upon which other initiatives may be based. It is essential at the macro level for senior decision makers to know how Canadians are being prepared to participate in the Internet economy. The next step is for the information to be posted on the world wide web where all stakeholders will have access.

The first part of the report provides an overall analysis of the responses from the colleges and institutes. This is followed in part two by a listing of the institutions, organized alphabetically by geographical regions from west to east.

Due to a tight time frame at the end of the fiscal year, this report does not include all of Canada's colleges and institutes of technologies. It is current as of November 2001. Comments on, and corrections to, the current text are invited and may be sent to eteam.study@ic.gc.ca.

For more information on the Canadian E-Business Opportunities Roundtable, the reader may visit the following web site: http://www.ebusinessroundtable.ca.

PART ONE – ANALYTICAL SUMMARY

In addition to the programs listed in the summary table, colleges and institutes of technology offer many non-credit courses in e-commerce through their continuing education departments. These are detailed in the individual institutional contributions in Part Two of this report. Information is also provided with regard to what programming is planned in this area in the next two years.

In terms of research in the field of e-commerce, the institutions below reported on their respective facilities and activities:

- Centennial College's E-Commerce Institute;
- John Abbott College's IT Training Centre with its Student Connection Program, an Industry Canada-ACCC project offer E-Commerce 1st Step Programs to business and industry;
- New Brunswick Community College, Saint John Campus, Consortium for Information Technology in Education (CITE);
- Red Deer College's Teaching, Learning and Technology Centre;
- Red River College's new state-of-the-art facility for IT and media programs, as well as a developing program of applied research in Internet-based Industrial BioSciences Programming;
- University College of Cape Breton's Centre of Excellence, Information Technology and its Small and Medium-Sized Enterprise Institute;

The Canadian college system is noted for its collaboration with industry and community services to provide the type of training required in the marketplace. An interesting example in Terrace, BC is the Cisco Academy that is run jointly by Northwest Community College, the Prince Rupert School District and Cisco Systems. Selkirk College in Castlegar, BC provides another noteworthy example where a partnership with Community Futures in Nelson, BC has led to a multimedia program in which students bid on and complete projects for local businesses.

Industry advisory boards are common for most college programs and the field of e-commerce is no exception. These committees are considered crucial to the success of developing market-driven, employer-satisfied course offerings with key persons from respective industries. Co-operative placements are often a component of college curriculum, giving hands-on, relevant knowledge. Another area of collaboration is with universities, as colleges apply for articulation arrangements to allow their graduates to move midway into degree programs.

A company named Applied Communications Technologies Inc., which is part of the University College of Cape Breton Foundation, markets and provides communications technology software products and services. Seneca College brings industry leaders, alumni and employers on campus to address topics, trends and issues in e-commerce.

The majority of colleges are using electronic technology to promote the commerce of their institutions. This ranges from a well-developed use of educational technology for distance learning to the use of the web to provide detailed information on the institutions to online

registration and several other services. In January 2001, the Association of Colleges of Applied Arts and Technology of Ontario (ACAATO) did a study on the utilization of Distributed Learning Networks. More information on this is available under the St. Clair College contribution in Part Two.

At Grant MacEwan Community College in Edmonton, AB, classrooms have telephone, video network, and Internet/computer network connections, and sometimes wireless connections. Instructors have access to a 26-line audio-conferencing bridge, a video-conferencing system with a 384 KB transmission rate and an eight-channel television distribution network. Thus, it is possible to connect anyone to anywhere at anytime.

Colleges are also involved in conferences connected to e-commerce, either as hosts, presenters or participants. This is just one example of the many professional development activities designed to keep instructors up to speed with the rapidly changing technology.

PART TWO – INSTITUTIONAL OFFERINGS

British Columbia and Yukon Region

British Columbia Institute of Technology (BCIT), Vancouver, BC

- At BCIT there are two programs focused directly on e-commerce: Professional Web Developer (PWD) and Software Systems Development (SSD) Programs. The SSD Program contains a Web Application Development option and students take on development/e-commerce related projects.

Capilano College, North Vancouver, BC

- An introductory course to e-commerce is offered. It is a first-year elective, non-technical course which takes a project approach, combining lectures and practical lab assignments. E-Commerce and Marketing, a third-year elective course, provides an in-depth look at all major aspects of e-commerce.
- In September 2001, the College will offer an e-business certificate.
- A three-year program entitled Business Computing Co-operative Diploma Program, combines co-operative workplace practicums with an innovative curriculum that starts with the first year of the regular Business Diploma program.
- The Technical Computer Professional program is an accelerated twelve-month diploma with a strong technical focus on e-business. Graduates become eligible for internationally recognized certifications.
- The Computer Specialist Program is designed for people with business and computer experience. Students graduate with a diploma in Business Administration. Augmented by self-study, graduates will be eligible to write certain industry certifications.

College of New Caledonia, Prince George, BC

- An application is underway to develop courses, and offer a certificate in e-commerce. The certificate program would be offered through CNC's Business Division.
- The College offers several courses related to e-commerce through its computer Information Systems Programs (Business Division). These involve data communications, communications technologies, information systems, and online transaction processing.

Kwantlen University College, Surrey, BC

- Currently there are three programs that touch on e-commerce: Bachelor of Technology in Information Technology (four-year degree); Computer Information Systems Diploma Program (two-year diploma); and Internet & Media Online Specialist Citation. The first two fall under the School of Business while the latter is part of Continuing Education.
- A Marketing Management Diploma with an E-Commerce Specialization within the School of Business is under development as is a new office for applied research.

Langara College, Vancouver, BC
* The Business and Community Programs Division for base-funded programs at Langara College offers one course called BUSM 2000. Topics covered include the following: the concepts of building a web presence; the logistics involved in managing a commercial site to build business; the use of the Internet as a marketing and promotional tool; and the construction of support systems for the website.

Northwest Community College, Terrace, BC
* The Business Administration faculty has created and is in the process of articulating three e-commerce courses.

Selkirk College, Castlegar, BC
* An online certificate program which specializes in e-commerce is offered. Level I is offered by the Applied Business Technology Department. The college is currently in the process of applying to the Ministry for approval for a second level of this program.
* The Business Administration program offers an introduction to e-commerce. The intention is to provide a framework for students to use in the analysis and formulation of e-commerce business solutions.

University College of the Cariboo (UCC), Kamloops, BC
* UCC will offer an e-commerce specialist program in the late spring 2001. This is a credit, software-intensive program, teaching people how to design, build and maintain e-commerce web sites.
* UCC has a brokering arrangement with the University of British Columbia Continuing Studies whereby they offer an Internet marketing certificate program. This non-credit, part-time program began in February 2001.
* UCC offers a one-evening "Introduction to E-Commerce" seminar that takes place in various communities throughout the College region.

Yukon College, Whitehorse, YK
* As a part of the Business Administration program, introductory credit and non-credit courses in e-commerce are offered. They cover such aspects as practical demonstrations, online store types, payment processing, marketing and business.

Alberta and Northwest Territories Region

Bow Valley College, Calgary, AB
* The following courses have recently been developed in the Web Site Development Certificate program: Introduction to E-Commerce and Promoting Your Web Site.
* An e-commerce certificate is being planned by the Business and Industry Training Department in collaboration with the industry advisory committee.

Fairview College, Fairview, AB
* An E-Commerce diploma within the division of Business and Applied Studies is offered. Business and industry advisory meetings are held to advise on the content and direction of the program.

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Grande Prairie Regional College, Grande Prairie , AB
- Grande Prairie Regional College is expecting provincial government approval for funding to offer two-year diplomas in Office Administration and Business Administration with e-commerce specializations featuring courses such as E-Commerce Fundamentals, Internet Marketing, Image Editing and Enhancement, and Web Site Building in the second year of the program.

Grant MacEwan Community College, Edmonton, AB
- Programs offered are: an Information Technology and Systems Management Diploma that has an e-commerce stream and a network specialist stream; an E-Commerce Certified Internet Webmaster program; and, a Bachelor of Applied International Business and Supply Chain Management. This latter program prepares students for a career in supply chain management, logistics, e-business, and international trade.

Lakeland College, Vermilion, AB
- The Lloydminster campus offers a two-year Computer Systems Technology Diploma that incorporates application developments, networking technologies, systems analysis and design, small business for the computer professional, and applied analysis and design.
- A two-year Networking Technology Diploma is also available featuring courses on web servers administration, network design, network administration, network implementation, networking technologies, client interaction and support, and data communications. At the Vermilion campus, first year Business Administration students will take a specific e-commerce course beginning in September 2001.

Lethbridge Community College, Lethbridge, AB
- Pending approval, Lethbridge Community College intends to launch the first year of a two-year diploma in e-commerce/e-business by fall 2002.

Red Deer College, Red Deer, AB
- The College offers two-year diplomas in Business Administration with a concentration in Information Technology and e-business, and in Computer Systems Technology.
- A new program currently under development is the E-Business Solutions Developer certificate program which is planned to be offered in January 2002 by the Extension Services Department.
- Seminars, courses, and consultation services in the design and implementation of online learning using WebCT, LearnLinc, and multi-media technologies are offered through the Teaching, Learning, and Technology Centre. LearnLinc is a synchronous voice-over-IP tool that links the functionality of asynchronous web delivery with audio communication.

Saskatchewan, Manitoba and Nunavut Region

Assiniboine Community College, Brandon, MB
- Assiniboine Community College is seeking funding approval for a two-year diploma program in Business Computing. The program will be offered jointly by the Business and Tourism Division and the Information Technologies Division

North West Regional College, North Battleford, SK
- North West Regional College has various multi-media university classes (on-line and face-to-face) provided through Saskatchewan Communications Network (SCN) to six locations within the region.

Red River College, Winnipeg, MB
- The Information Systems Technology, a two-year diploma program, covers the basics of networking, hardware and software. In the second year students may choose to specialize in e-commerce.
- The one-year Computer Accounting Technician certificate program has e-commerce infused into the content as does the two-year diploma program called Computer Analyst/Programmer.
- The Information Systems Programmer Analyst Certificate Program provides the basics in information systems hardware, programming, analysis, design and business concepts. The Web Site Development Certificate Program encompasses computer languages, e-business and e-commerce management plus maintenance and security.
- There are six programs in the Applied Sciences division which focus on IT infrastructure, communications and electronics. Three new programs are being developed in IT infrastructure, computer science and e-commerce.
- RRC will include a new campus for IT and media programs in a modern, state of the art facility. RRC is exploring the application of technology to improve both accessibility and effectiveness of the teaching and learning process.

Saskatchewan Institute of Applied Science and Technology, Saskatoon, SK
- Two of the diploma programs are Computer Information Systems which follows one year of the Business program, and Computer Systems Technology which is two years. Other certificates are available in New Media Communications, and Business Planning which is an applied certificate

Collège universitaire de Saint-Boniface, Saint-Boniface, MB
- The École technique et professionnelle (ÉTP) currently offers two diploma programs that include courses entitled "Le commerce électronique" [e-commerce]. These programs are in multimedia communication and computer science. In September 2002, a Webmaster certificate program will be established that will include an e-commerce course.

Winnipeg Technical School, Winnipeg, MB
- Currently, the school offers a Network Support Technician Certificate Program. The program focuses on courses on Network Technologies, Routing and Switching, Network Operating Systems Administration, Enterprise Messaging Systems and Network Troubleshooting.
- Two more certificate programs are planned within the next two years: Database Specialist, and Electronic Commerce Developer. The latter will focus on e-commerce basics.

Ontario Region

Algonquin College, Ottawa, ON
- In the School of Business there are three diploma programs related to e-commerce: Business Administration major in Information Systems; Business Administration major in Materials Management (Supply Chain Management); and Computer Programmer. A fourth program, Business Administration major in E-Business, is scheduled to commence in fall 2002.
- For certificate programs, the College offers the following: E-Business Web Developer; Information Technology Professional; Technology Developer Program; Call Centre Agent; and Oracle Database Administration. Commencing in fall 2002, there will also be a program in E-Business Office Assistant.

Cambrian College, Sudbury, ON
- The School of Business, Media, Information Technology (BMIT) offers a post-diploma program named Electronic Commerce. Subjects offered include E-Business: Re-engineering Business Concepts, E-Commerce and Consumer Marketing, E-Business Technology, Data Base Management Systems, E-Business Project Management, Data Warehousing and Mining, Supply Chain Management, Management Control & Security of E-Commerce, and E-Commerce Electronic Payments.
- BMIT has incorporated a number of relevant courses such as Web Page Design and Web Programming, and E-Commerce into various curricula offered through the School.
- A post diploma program in e-commerce will be offered starting September 2001.

Canadore College, North Bay, ON
- Canadore College is actively involved in elements of e-commerce in the areas of business, Continuing Education and IT. In the latter there are courses in Internet and intranet.
- At the present time there are two courses which touch on e-commerce in Canadore's business area.
- Under Continuing Education, the following courses are offered: Introduction to E-Commerce; an e-commerce workshop; NewMedia Certificate which includes courses in Web Design for E-Commerce; and Information Technology Support Analyst (Help Desk, Networking, Hardware).
- For fall 2001, a certificate program in Web Developer and/or E-Commerce is being developed.

Centennial College, Scarborough, ON
- The respective education programs are the following: E-Commerce for management resources; Network Specialist for network maintenance resources; the Call/Contact Centre for e-service delivery resource.
- Centennial's E-commerce Institute is a joint project of the College and many leading-edge private sector companies.

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La Cité collégiale, Ottawa, ON
* In the fall of 2001, the e-commerce and information security technology programs will be offered for the first time at Cité collégiale. The first will train students in the new field of Internet commerce. The training will cover the following subjects: marketing and the Internet, integration of Web sites into a marketing plan, Web site design, integrated management and commercial law.

Confederation College,Thunderbay, ON
* The college is in its third year of offering a post-diploma program in Global Entrepreneurship and Electronic Commerce.
* The Computer Programmer Analyst and Multimedia Production programs also offer components of e-business as part of the curriculum.

Durham College, Oshawa, ON
* The School of Business is currently offering a two-year program in e-Business. The program focuses on understanding business problems, issues, and trends, and implementing electronic initiatives to enhance or replace existing processes.
* Beginning in September 2001, a post-diploma in e-commerce will be offered to graduates of three-year college programs or university graduates.
* Existing programs of study in business are being modified to accommodate a new course entitled "Introduction to e-Commerce".

Fanshawe College, London, ON
* Through its Information Technology division, the college offers several courses in computer programming and networking. The Internet Technologist (ITT) program is a three-year diploma program that covers many aspects of the development and deployment of e-commerce and Internet-based business solutions.

Georgian College, Barrie, ON
* There is a three-semester post-diploma program in "Web Design and Production". As well, there is the online post-graduate diploma entitled CyberSpace Security.
* In the fall of 2000, through the part-time studies division the College created and offered a course in "Fundamentals of E-Commerce".

Mohawk College, Hamilton, ON
* In January 2001 Mohawk College began its one-year, post-diploma certificate entitled Advanced Network Security and Connectivity (ANSAC).
* A one-year post-diploma certificate to be called E-Commerce Business-to-Business Specialist is being planned. It is to be run across divisions by a project team from Technology, Business and Media Studies.

Niagara College, Welland, ON
* Elements of electronic commerce training are incorporated in its Communications and Information Technology Division, through full-time programs at the technician and technologist levels in Computer Engineering, Electrical and Electronic Engineering, as well as through Continuing Education courses and certificate programs in computer training.
* In the two and three year business programs in the Business and Entrepreneurship Division, electronic commerce "across the supply chain" training is infused in all business

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programs, in marketing, sales, accounting, and operations management. A course entitled "Introduction to the World of Electronic Commerce" is provided to full-time and part-time students, and clients starting new businesses. A course called "The Enterprising Edge" is delivered in partnership with the Enterprise Excellence Corporation, which hosts a multi-faceted electronic commerce web site.

St. Lawrence College, Brockville, ON
- St. Lawrence College offers five diploma programs and one certificate program with specific e-commerce content: Computer Networking and Technical Support; Computer Programmer Analyst; Computer Engineering Technician - Networking (Coop Option); Business Technology/Information & Communication Systems; Microcomputer Engineering Technology; and Information Technology Specialist.

Seneca College, Toronto, ON
- The Business Computer Systems program blends business and technology. About 45% of the courses relate to e-commerce.
- A one-year post-diploma certificate program, Internet and Electronic Commerce is also offered.
- Programs in marketing management and administration include some focus on e-commerce. There are also individual subject offerings in e-commerce through Part-Time Studies. One example is the course called E-Commerce for Managers and Professionals.

Québec Region

Cégep régional de Lanaudière, Repentigny, QC
- The Cégep régional de Lanaudière offers five college programs in the field of electronic commerce. There is a computer science diploma and four certificates in the following areas: call-centre teleservices; programmer-analyst; and network installation and management.
- The Cégep régional de Lanaudière has a regional project for the implementation of electronic business solutions. This is an initiative in co-operation with various government institutions - for example, Economic Development Canada, Emploi-Québec, and the region's community futures development corporations. The following services are offered: guidance from a consultant specializing in electronic business; consulting services regarding implementation of e-business solutions; and a series of customized workshops for businesses.

Collège Laflèche, Trois-Rivières, QC
- Collège Laflèche offers the following training in electronic commerce: customized electronic business services; electronic business and commerce in co-operation with the Ministère de l'Industrie et du Commerce; information security in an electronic business context; and effective research on the Internet. In addition, consultation on e-business implementation strategy is offered.

Dawson College, Montreal, QC
- The Computer Science Technology Program prepares students to work as entry-level programmer analysts in small, medium or large enterprises involved in e-business.

- Graduates of the Graphic Design Program are trained in the production of multimedia projects and may be employed in companies specializing in or using e-commerce.
- Graduates of the A.E.C. (attestation) Network Support Technician work as infrastructure specialists for companies and institutions involved in e-commerce.
- The A.E.C. Telecommunications program prepares students to install, troubleshoot and work with telecommunications control systems, transmission and receiving systems. Graduates work in the installation and maintenance of backbone network and transmission components used most heavily for e-commerce.
- Graduates of the A.E.C. Multimedia Design Specialist program work to design multimedia design components for e-commerce sites and productions sold or transmitted on line.
- Students in the A.E.C. International Trade program study the fundamentals and logistics of international trade and electronic commerce.
- The A.E.C. Telecommunications Network Installation and Maintenance program focuses on copper and fibre optic system installation, upgrading and maintenance for the internal and backbone networks used for e-commerce.
- Continuing Education Credit and non-credit students have a choice of a wide variety of courses in programming, design and illustration and administration and marketing for hypermedia and electronic commerce.

Heritage College, Hull, QC
- The Computer Science Program has three courses that cover different aspects of e-commerce. In fall 2001 this program will be completely revised with an emphasis on web application development.
- Continuing Education offers a fast track, eleven-month training program called Web Application Developer and E-Commerce.

John Abbott College, Ste-Anne-de-Bellevue, QC
- The IT Training Centre offers a number of career-directed training programs, including intensive accredited programs in E-Commerce Technology and Marketing, Network Administration, Web Technology, Programmer/Analyst, Technical Support and Multi-Media Technology.
- The Centre houses activities of the Student Connection Program, an Industry Canada-ACCC project offering E-Commerce 1st Step Programs to business and industry, and one-on-one technical assistance and web-site creation training to individuals.
- The Business Training Services unit of Continuing Education offers tailor-made workshops, seminars and courses on e-commerce and web-based learning.
- Evening students enroll in an E-Commerce Technology and Marketing Attestation, as well as courses in Web Design, Web Programming, Web-Site Creation, and on-line Marketing courses.

LaSalle College, Montréal, QC
- The following programs all lead to a college certificate, and are recognized by the Ministers of Education and Industry: Electronic Commerce on SAP Applications; and Electronic Commerce. These programs are on average one-year programs.
- The other Electronic Commerce program enables students to update their knowledge on technical, commercial and marketing issues, to familiarize themselves with commonly-used software, key players in the industry sectors and the procedures to consider when implementing new Internet technologies in the business world.

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Atlantic Region

College of the North Atlantic, Grand Falls-Windsor, NF
- A post-diploma/degree program entitled Electronic Commerce has been developed. It includes twelve courses and a capstone project plus a course called E-Business Career Development.

Fisheries and Marine Institute of Memorial University, St. John's, NF
- The Marine Institute does not offer programs directly on the subject of electronic commerce, but does focus on the use of Information Technology in support of its program offerings.

Holland College, Charlottetown, PEI
- Holland College has a six-month certificate program called Internet Marketing and Electronic Commerce Strategist. It explores the many ways organizations can use the Internet to capture new markets, increase sales, expand on current marketing strategies and provide new forms of customer value.

New Brunswick Community College (NBCC)

Saint John Campus
- A two-year diploma program in Business Technology is offered. The Information Systems Specialist (ISS) option is an articulated program with the University of New Brunswick (UNB) in Saint John. The Bachelor of Applied Management in E-commerce will provide a degree completion for students.
- The ISS program covers the complexities of computerized business systems and develops the necessary technical and managerial skills required to use this new technology efficiently. Graduates of ISS are also eligible to enter the Bachelor of Business Administration at the University College of Cape Breton at the mid point. ISS is currently under review and is planned to become the "E-Business" option by September 2002.
- Programs such as Marketing, Office Technology, Customer Contact Centre and Business Information Technology Specialist (BITS) are steadily being permeated with courses related to e-commerce. The latter is a contract program, renowned for its innovations in business partnering, with an e-commerce output.
- The Saint John campus is home to the Consortium for Information Technology in Education (CITE). Their role is to research and promote the development and application of technology delivered learning.

Woodstock Campus
- There is a two-year diploma program, Business Technology. The second year allows for specialties in e-commerce and investment management.

Moncton Campus
- The Moncton campus has organized two-day seminars for business people to find out about e-commerce. These began in January 2001.

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Nova Scotia Community College (NSCC), Lunenburg, NS
- The Lunenburg campus of NSCC is offering a Business Administration – E-Commerce Marketing diploma program. It is the first e-commerce program in the College and is currently being offered as a pilot.

Systems 'N' Solutions Training Centre, St. John's, NF
- The centre offers a full time 16-month Webmaster program and a full time 24-month E-Commerce/Wireless Developer Program. A combination of classroom instruction and laboratory workshops ensures that students are fully qualified in this rapidly growing field.

University College of Cape Breton, Sydney, NS
- Both baccalaureate degree and diploma programs related to electronic commerce are offered. The Bachelor of Business Administration degree offers concentrations in entrepreneurship, information technology, marketing, and tourism marketing and management. There is a four-year Bachelor of Technology Information degree program which includes options in information management, networking systems, computer information systems, and geographic information systems.
- Business Technology diplomas in computer information systems and marketing offer other avenues of study.
- Courses available to students interested in electronic commerce include offerings in marketing, technical entrepreneurship, writing for media, graphic design for media, information systems, operating systems and networks, scripting language, JAVA, and programming.
- The Small and Medium-sized Enterprise Institute has completed research on venture capital in the information technology sector. Currently research is being conducted on innovative systems, through membership in the Innovation Systems Research Network which is headed by the University of Toronto.
- The Centre of Excellence, Information Technology has been established to improve the core of IT infrastructure at UCCB. A new IT Centre is currently under construction. The Centre is developing programs, training, testing, and workshop activities for education and business. It will provide technical advice and support services, and will develop improved line access capacity to support cluster development and community access programs.

NOTICE

Reproduction Basis

EFF-089 (1/2003)