



**FDU–Vancouver**

# Bachelor of Science in Information Technology

*With a Concentration in Business Administration*

*FDU-Vancouver • British Columbia, Canada*

Fairleigh Dickinson University's Bachelor of Science (B.S.) in Information Technology (IT) program provides students with the comprehensive knowledge, skills, and training needed to pursue careers as IT professionals in one of the most dynamic fields of modern technologies — information technology.

## **FDU-VANCOUVER**

As a leading innovator in global education, Fairleigh Dickinson University consistently seeks new ways to offer its unique learning opportunities to students worldwide. The University offers two undergraduate degree programs — a Bachelor of Science in Information Technology with a concentration in Business Administration and a Bachelor of Science in Business Management — at its newest campus location in Vancouver, British Columbia. Located in western Canada near the U.S. border, Vancouver is one of the world's most scenic, cosmopolitan and multicultural cities. Warmed by Pacific Ocean currents and surrounded by mountains, the city enjoys mild temperatures throughout the year.

Classes at FDU-Vancouver will be held during three semesters each year, enabling the students to accelerate their studies and earn their degrees in less than three years by attending classes year-round.

## **PROGRAM OVERVIEW**

The overarching goal of the B.S. in Information Technology degree program is to prepare students as information technologists and professionals who can assist general users, including individuals and organizations, in evaluating needs and solving problems related to information technology, as well as in applying IT effectively in a global work environment driven by rapidly changing technology. The program provides students with broad, integrated knowledge in selected areas of information technology, including data communication, computer networking, computer-based systems, database management, application development, digital media, and electronic publishing. Students learn how to evaluate current and emerging technologies; identify user needs; design user-friendly interfaces; apply, configure and manage these technologies; and assess their impacts on individuals, organizations and the society. Moreover, with a concentration in business administration, graduates of this program will also possess additional knowledge and skills to apply fundamental business concepts and strategies in a global business community driven by information technology.

The degree program is offered through Fairleigh Dickinson's Gildart Haase School of Computer Sciences and Engineering, in collaboration with Fairleigh Dickinson's Silberman College of Business. This synergistic approach will provide students an information technology curriculum with interdisciplinary perspectives in information technology and business administration.

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## **CAREER OPPORTUNITIES**

Information technology is credited with being a major factor in increased productivity and the driving force behind the global economy. There is a great demand for IT professionals in Canada, the United States and throughout the world, ensuring graduates of strong employment opportunities following completion of the program.

Graduates of this program will be prepared for careers in areas such as computer networking, computer-based systems, Web site development and management, digital media publishing, management information systems, database management, and application development. The business administration concentration provides students with added value, giving them the fundamental knowledge and skills to be successful in a competitive and challenging global economy.

The Canadian Software Human Resource Council reports that the IT workforce in Canada is 600,000 strong and growing, with British Columbia enjoying phenomenal growth in the high-tech computing sector. The U.S. Department of Labor Statistics projects an 18-27 percent workforce growth in the areas of computer support specialists and systems administrators by 2014.

## **FACULTY**

The B.S. in Information Technology is an interdisciplinary program administered by the Gildart Haase School of Computer Sciences and Engineering. All IT faculty members at FDU-Vancouver will be required to meet the same high standards of teaching competency, educational attainment, scholarly and professional accomplishments and service to the institution as those who teach at the University's FDU New Jersey campuses. Faculty will include New Jersey full-time faculty who will teach through distance education courses or onsite in Vancouver, and qualified appointed faculty at FDU-Vancouver. The New Jersey faculty of the Silberman College of Business and faculty at FDU-Vancouver will support the business administration concentration.

## **OBJECTIVES AND OUTCOMES**

### ***Program Objectives***

The educational objectives of the B.S. in Information Technology program define the skills, knowledge and attributes that will be needed and achieved by the graduates for a successful career and professional accomplishments three to four years after graduation. The program will produce graduates who:

1. Have a technical and basic business education with an appropriate combination of theoretical knowledge and practical skills, which will enable them to enter into and advance in the profession of information technology, management information systems, and business administration.

2. Possess the necessary foundation to continue their formal education and obtain advanced degrees in information technology, management information systems, business administration or other related fields.
3. Can engage effectively in oral, written, and graphical communications and are comfortable in both interpersonal and public settings.
4. Have the knowledge and skills that enable them to participate in life-long learning and to adapt to an ever-changing, global technological and business environment.
5. Have a well-rounded education that enables them to conduct themselves as responsible professionals and global citizens, who are aware of ethical issues and societal needs and problems.

### ***Program Outcomes***

Upon or before graduation, each IT graduate will possess the knowledge, skills, abilities and attributes to:

1. Apply mathematical knowledge, scientific principles, and computer and technical concepts in problem-solving.
2. Evaluate, apply, and manage technologies in various fields of IT, including software applications, management information systems, digital media publishing, Web site development and management, databases, and computer networks.
3. Design and conduct experiments to resolve IT hardware and software problems.
4. Assess user needs and the impact of technological solutions in a global and societal context.
5. Communicate effectively in oral, written, and graphical modes.
6. Work effectively in teams.
7. Understand professional and ethical responsibility towards society.
8. Engage in life-long learning and to keep abreast of contemporary issues.
9. Understand major features of a business system and how functional areas (i.e., marketing, accounting, finance, organizational behavior, information management and information technology) work in relation to the entire operation.

**CURRICULUM**

The program emphasizes the practical applications of information technology. It provides students with both breadth and depth of information technology needed for professional success in this field. The curriculum of the Bachelor of Science in Information Technology with a Business Administration concentration requires the successful completion of 130 credits which are distributed as follows:

<b>Information Technology Core Requirements</b>	<i>48 credits</i>
<b>Mathematics, Science and Programming Requirements</b>	<i>18 credits</i>
<b>Liberal Arts Requirements</b>	<i>34 credits</i>
<b>Business Administration Concentration</b>	<i>24 credits</i>
<b>Free Electives</b>	<i>6 credits</i>
<b>Total</b>	<b><i>130 Credits</i></b>

The IT core courses provide students with the integrated, technical knowledge and training in various areas of information technology. Students learn about multimedia technology, Internet, Web site design, computer-based systems, computer networks, data communications, network security, disaster recovery, databases, application development, programming, management and economics. They also study the influence of information technology on the economy, politics, culture, and the global society. The mathematics, science and programming courses provide students with a strong analytical and scientific foundation. Students will receive a well-rounded education and a strong foundation for thoughtful global citizenship through the liberal arts courses. The development of strong oral and written communication skills is emphasized throughout the curriculum. The business administration concentration enables students to understand and appreciate the fundamental concepts underlying the field of business administration.

The required courses for the B.S. in Information Technology with a concentration in Business Administration are listed at right. All courses are three credits unless otherwise noted.

**IT Core Requirements** *48 credits*

- Computer Concepts and Technology
- Data Communications & Computer Networks I
- Data Communications & Computer Networks II
- Data Structures
- Database Systems
- Digital Media Publishing
- Digital Systems
- Human Computer Interface
- IT Needs Assessment & Management
- IT Capstone Project
- Information Technology
- Internet & Web Applications
- Management & Engineering Economics
- Management Information Systems
- Software Applications in Business & Technology
- Web Site Design and Management

**Mathematics, Science and Programming Requirements** *18 credits*

- Applied Statistics
- Applied Calculus
- Computer Programming I for IT
- Computer Programming II for IT
- Introduction to Environmental Science with Lab
- Modern Technologies: Principles, Applications & Impacts

**Liberal Arts Requirements** *34 credits*

- The American Experience
- Cross-Cultural Perspectives
- English Composition I
- English Composition II
- Freshman Seminar (1 cr.)
- Geography & World Issues
- The Global Challenge
- Human Perspectives of a Computerized Society
- Introduction to Political Science
- Introduction to Digital Media
- Perspectives on the Individual
- Technical Communications

**Business Administration Concentration** *24 credits*

- Accounting Principles
- Business Finance
- Business in a Global Society
- Fundamentals of International Business
- Human Motivation & Behavior
- Introduction to Microeconomics
- Principles of Marketing
- Principles of International Marketing

**Free Electives** *6 credits*

## LABORATORIES

Computer labs patterned after facilities at the FDU Metropolitan Campus in New Jersey will provide hands-on experience in networking, multimedia, electronic desktop publishing, and database and application management. Software packages for multimedia, language compilation, database management, web development, business information management and other applications will be made available for student use .

## ACCREDITATIONS AND APPROVALS

Fairleigh Dickinson University is accredited by the Middle States Commission on Higher Education and licensed by the State of New Jersey Commission on Higher Education. FDU's Silberman College of Business holds prestigious accreditation by AACSB International – the Association to Advance Collegiate Schools of Business. Many of the University's individual academic degree programs, including several programs in the Gildart Haase School of Computer Sciences and Engineering, are accredited by the appropriate professional and educational agencies.

The term "university" is used in British Columbia under the written consent of the British Columbia Ministry of Advanced Education effective May 8, 2006. Fairleigh Dickinson University, having undergone a quality assessment process and been found to meet the criteria established by the Ministry, is the first non-Canadian institution to gain approval under the stringent standards adopted by the Ministry in 2003. The B.S. in Information Technology with a concentration in Business Administration program is also offered under the written consent of the British Columbia Ministry of Advanced Education effective May 8, 2006.

## ABOUT FAIRLEIGH DICKINSON UNIVERSITY

Founded in 1942, Fairleigh Dickinson University is the largest private university in the state of New Jersey, and it is one of New Jersey's leading independent institutions of higher education. The University serves more than 11,000 students at its two U.S. campuses — the Metropolitan Campus in Teaneck, New Jersey, and the College at Florham in Madison, New Jersey. The University offers more than 100 bachelor's, master's and doctoral programs.

In addition to its U.S. locations, the University owns and operates Wroxton College in Oxfordshire, England. Students usually study for a semester or the summer at Wroxton which features high quality academic programs and the opportunity to travel and experience new cultures.

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### For More Information

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