

Information Technology: Bachelor of Technology

| Faculty of Business | |
|---------------------------|---------------------------------|
| kwantlen.ca/business | |
| IMPLEMENTATION DATE | START DATE(S) |
| 01-Sep-2011 | September January May |
| ADMISSION TYPE | ENROLMENT TYPE |
| Selective entry | Open access |
| PROGRAM TYPE | CREDENTIAL GRANTED |
| Undergraduate | Baccalaureate Degree |
| OFFERED AT | FORMAT |
| Surrey | Full-time Part-time Co-op |
| HOW TO APPLY | |
| www.kwantlen.ca/admission | |

DESCRIPTION

The Bachelor of Technology in Information Technology provides students with a solid foundation in:

- information systems, planning and design
- data communications, networking and security
- data mining and warehousing, and
- business communications

The program is comprised of two main components: a technical component, and a liberal education component. Students study advanced information technologies that integrate problem-solving skills, technical skills and business knowledge, and also take courses designed to equip them with broad academic perspectives - an essential element for success in today's multicultural milieu and global marketplace.

Graduates of the Bachelor of Technology in Information Technology may use the designation BTech (I.T.) after their names.

International Programs and Exchanges

There are exchange agreements for Bachelor of Technology in Information Technology students with partner institutions in other countries. In addition to exchanges, there are other opportunities for international work, co-op placements, and service learning.

For more information go online to: <http://www.kwantlen.ca/exchange>

CAREER OPPORTUNITIES

Graduates of this program may find employment in the following areas:

- Enterprise Resource Planning (ERP) Systems Implementation
- Information Security
- Wireless Systems Development
- Software analysis, design and development
- Web design, development and integration

- Data warehouse and data mining design, development and administration
- Distributed systems design and development
- Network and telecommunication system administration
- Software quality assurance, testing and validation
- Project management
- Human computer interface design
- Multimedia development
- Hardware/software technical support

PROGRAM ADMISSION REQUIREMENTS

Year 3 Admission:

Students may be admitted to the program in year 3 provided they have ONE of the following:

1. Kwantlen's Computer Information Systems (CISY) certificate plus an additional 30 credits (60 credits overall) with a minimum GPA of 2.7.

Graduates of the certificate program will have already completed three of the four required bridging courses (listed below), therefore, the additional 30 credits must include:

- CISY 2314 Database Management Systems (3 credits)
- Nine additional undergraduate courses (minimum 27 credits) from ANY discipline. **Note:** ENGL 1100 (3 credits) is strongly recommended as one of the nine courses.

2. A 60 credit diploma with a minimum GPA of 2.7 in the discipline of computer science, computer information systems, information technology or the equivalent, from a recognized post-secondary institution.
3. 60 university transferable credits with a minimum GPA of 2.7 from a recognized post-secondary institution, including the required bridging courses listed below.

BRIDGING COURSES

Students who have a minimum of 60 post-secondary credits with a minimum GPA of 2.7 must have also completed the following bridging courses:

- CISY 1113 Principles of Program Structure and Design
- CISY 1212 Systems Analysis and Design
- CISY 1215 Enterprise Networking
- CISY 2314 Database Management Systems

CO-OPERATIVE EDUCATION

This degree program is offered with a Co-operative Education option. Co-operative Education provides a student with paid, practical work experience that gives them an opportunity to apply the skills they are gaining through their education. Degree students can complete two work terms over an 8 month continuous placement or a combination of two separate 4-month work semesters.

Co-operative Education is optional and selective. Students wishing to choose the Co-op option must register into COOP 1101 upon approval into the degree program. If you have already taken COOP 1101, contact the Co-op Office to indicate your interest.

Students must complete a minimum of 360 hours of work per work term and students must receive satisfactory performance evaluations from their employer(s).

The Co-operative Education designation requires successful completion of the following courses:

Required:

COOP 1101 Job Search Techniques 1 credit

And either:

COOP 3210 Co-op Work Semester 3 9 credits

Or both:

COOP 3211 Co-op Work Semester 3 4.5 credits

COOP 3212 Co-op Work Semester 3 4.5 credits

And either:

COOP 4210 Co-op Work Semester 4 9 credits

Or both:

COOP 4211 Co-op Work Semester 4 4.5 credits

COOP 4212 Co-op Work Semester 4 4.5 credits

The following qualifications must be met **prior to your first work term:**

- Successful completion of COOP 1101
- Successful completion of a minimum five program courses
- Maintain a minimum GPA of 2.50
- Instructor permission

Students completing all the requirements of a Co-operative Education program will receive a Co-operative Education designation on their credential and transcript.

CONTENT

The degree program requires a minimum of 120 credits of required courses and electives. Students admitted to year 3 will have already completed a minimum of 60 credits. If a first-year English course was not completed prior to year 3 entry, degree completion will require more than 120 credits in total.

Third and fourth year Information Technology courses are scheduled at times that try to accommodate the needs of students who work during the day.

Years 3 and 4

GROUP A (CORE COURSES)

Five of:

INFO 3120 Web Programming with Java 3 credits

INFO 3140 Advanced Data Communications Systems 3 credits

INFO 3210 Distributed Systems 3 credits

INFO 3220 Multimedia Systems 3 credits

INFO 3230 Advanced Object-Oriented Application Development 3 credits

INFO 3240 Enterprise Resource Planning Systems 3 credits

INFO 3250 Content Management & Information Architecture 3 credits

INFO 3270 Special Topics in Information Technology 3 credits

All of:

INFO 3110 Professional Communications in Information Technology 3 credits

INFO 4310 Entrepreneurial Development in Information Technology* 3 credits

INFO 4340 Integration Project 3 credits

Five of:

INFO 4210 Human Factors and Computer Interface Design 3 credits

INFO 4220 Server Operating System Technologies 3 credits

INFO 4230 Information Technology Project Management 3 credits

INFO 4320 Software Quality Assurance 3 credits

INFO 4330 Data Warehousing and Data Mining 3 credits

INFO 4350 Introduction to Wireless Technologies and Programming 3 credits

INFO 4360 Information System Security 3 credits

INFO 4370 Security of Wireless Systems 3 credits

INFO 4380 Wireless Sensor Networks 3 credits

* **Note:** Students are required to participate in an actual sales project that counts towards part of their graded assignment.

GROUP B (ELECTIVES)

Two undergraduate courses (minimum 6 credits) numbered 1100 or higher in any area of study.

GROUP C (LIBERAL EDUCATION)

All business degrees require a minimum of 18 credits of liberal education that include:

- A first year English course (ENGL 1100 or equivalent). If this was not completed prior to Year 3 entry it must be completed prior to graduation.
- One 3rd or 4th year Ethics course chosen from:
 - PHIL 3033 Business Ethics OR
 - LBED 4210 Ethics and Social
- Four electives chosen from the list of approved Faculty of Business Liberal Education Electives. **Note:** No more than 3 credits can be taken from any one of CMNS, ECON or MRKT courses found on the list of approved electives.

GRADUATION

Upon successful completion of this program, students are eligible to receive a **Bachelor of Technology in Information Technology**.

Upon successful completion of this program with co-operative education, students are eligible to receive a **Bachelor of Technology in Information Technology, Co-operative Education Option**.