

# Information Technology: Bachelor of Technology

<b>School of Business</b>	kpu.ca/business
<b>Program Type</b>	Undergraduate
<b>Credential Granted</b>	Baccalaureate Degree
<b>Offered At</b>	Surrey
<b>Start Date(s)</b>	September January May
<b>Intake Type</b>	Open intake
<b>Format</b>	Full-time Part-time Co-op
<b>Instructional Cycle</b>	Semester-based
<b>Curriculum Effective Date</b>	01-Sep-2018
<b>How to Apply</b>	www.kpu.ca/admission

## DESCRIPTION

The Bachelor of Technology in Information Technology (BTech in IT) program allows students to earn a bachelor degree that prepares them for employment in the IT industry in Canada or for graduate school. Courses are offered so that students can focus on network administration and security or mobile and web application development based on their interests and career goals.

## ADMISSION REQUIREMENTS

The Faculty's Admission Requirements, which consist of KPU's undergraduate English Proficiency Requirement, apply to this program.

## DECLARATION REQUIREMENTS

Students intending to graduate with this School of Business degree must declare the credential. At the time of declaration, the student must satisfy all of the following requirements:

- In good academic standing with the University
- Completion of a minimum of 15 credits of undergraduate coursework.

## CURRICULAR REQUIREMENTS

The degree program requires a minimum of 120 credits of required courses and electives. The degree program with Co-operative Education requires an additional 28 credits of Co-op Education credits.

Note: BC Math 11 Foundations with a minimum grade of C+ (or an equivalent course) is a prerequisite for several INFO courses in Year 1. Consult an Academic Advisor to plan your course selections accordingly.

### Year 1

#### One of:

BUQU 1130 Business Mathematics 3 credits

MATH 1140 Calculus I (Business Applications) 3 credits

#### One of:

BUQU 1230 Business Statistics 3 credits

MATH 1115 Statistics 1 3 credits

MATH 2341 Introduction to Statistics for Business 4 credits

#### All of:

INFO 1111 Introduction to Computer Hardware and Software 3 credits

INFO 1112 Principles of Program Structure and Design I 3 credits

INFO 1113 Systems Analysis and Design 3 credits

INFO 1211 Operating Systems Principles And Applications 3 credits

INFO 1212 Networking Technologies I 3 credits

INFO 1213 Web Application Development 3 credits

INFO 1214 Discrete Mathematics for Information Technology 3 credits

PHIL 1150 Introduction to Formal Logic 3 credits

### Year 2

#### All of:

BUSI 1110 Fundamentals of Business in Canada 3 credits

CMNS 1140 Introduction to Professional Communication 3 credits

ENGL 1100 Introduction to University Writing 3 credits

INFO 2311 Networking Technologies II 3 credits

INFO 2312 Database Management Systems 3 credits

INFO 2313 Object-Oriented Programming 3 credits

INFO 2315 Data Structure 3 credits

INFO 2411 Foundations of Computer Security 3 credits

INFO 2413 System Development Project 3 credits

INFO 2416 Server Operating Systems 3 credits

### Year 3

#### All INFO Core Courses:

INFO 3110 Professional Communications in Information Technology 3 credits

INFO 3150 Object-Oriented Software Engineering 3 credits

INFO 3250	Content Management and Information Architecture	3 credits
INFO 3280	Information Technology Project Management	3 credits

**Plus any four INFO electives:**

INFO 3135	Advanced Web Application Development	3 credits
INFO 3171	System Security	3 credits
INFO 3180	Wireless Networks	3 credits
INFO 3225	Web Multimedia	3 credits
INFO 3235	Software Quality Assurance	3 credits
INFO 3240	Enterprise Resource Planning Systems	3 credits
INFO 3245	Mobile Programming I	3 credits
INFO 3390	Networking Technologies III	3 credits

**Plus one of:**

CBSY 3100	Ethics in Information Technology	3 credits
PHIL 3033	Business Ethics	3 credits
PHIL 3109	Foundations in Ethics	3 credits

**And one Breadth Elective:**

Chosen from courses numbered 1100 or higher in any area of study other than CBSY, CPSC, or INFO. 3 credits

**Year 4**

**All INFO Core Courses:**

INFO 4190	Integration Project I	3 credits
INFO 4290	Integration Project II	3 credits
INFO 4310	Entrepreneurial Development in Information Technology	3 credits

**Plus any five INFO electives:**

INFO 4105	Search Engine Principles	3 credits
INFO 4110	Cloud Computing	3 credits
INFO 4115	Website Design	3 credits
INFO 4120	Digital Forensics	3 credits
INFO 4125	Web Site Security	3 credits
INFO 4235	Special Topics in Web and Mobile Application Development	3 credits
INFO 4260	Network Technologies IV	3 credits
INFO 4330	Data Warehousing and Data Mining	3 credits
INFO 4370	Security of Wireless Systems	3 credits
INFO 4381	Internet of Things and Applications	3 credits

**And two Breadth Electives:**

Chosen from courses numbered 1100 or higher in any area of study other than CBSY, CPSC, or INFO. 6 credits

**Note:** \* Students may select INFO electives in Year 3 and Year 4 to fulfill a degree specialization.

**Degree Specializations**

**NETWORK ADMINISTRATION AND SECURITY**

To complete the Bachelor of Technology with a specialization in Network Administration and Security, students must successfully complete all of:

INFO 3171	System Security	3 credits
INFO 3180	Wireless Networks	3 credits
INFO 3240	Enterprise Resource Planning Systems	3 credits
INFO 3390	Networking Technologies III	3 credits
INFO 4110	Cloud Computing	3 credits
INFO 4120	Digital Forensics	3 credits
INFO 4260	Network Technologies IV	3 credits
INFO 4370	Security of Wireless Systems	3 credits
INFO 4381	Internet of Things and Applications	3 credits

**MOBILE AND WEB APPLICATION DEVELOPMENT**

To complete the Bachelor of Technology with a specialization in Mobile and Web Application Development, students must successfully complete all of:

INFO 3135	Advanced Web Application Development	3 credits
INFO 3225	Web Multimedia	3 credits
INFO 3235	Software Quality Assurance	3 credits
INFO 3245	Mobile Programming I	3 credits
INFO 4105	Search Engine Principles	3 credits
INFO 4115	Website Design	3 credits
INFO 4125	Web Site Security	3 credits
INFO 4235	Special Topics in Web and Mobile Application Development	3 credits
INFO 4330	Data Warehousing and Data Mining	3 credits

**CO-OPERATIVE EDUCATION**

The Bachelor of Technology – Information Technology degree is offered with a Co-operative Education option. Co-operative Education gives a student the opportunity to apply the skills gained during academic study in paid, practical work experience semesters. Degree students can complete a minimum of three work terms while completing their degree. Work terms generally occur full-time in separate 4 month work semesters but may also be available part-time over an 8 month continuous (parallel) placement. Work semesters alternate with academic study.

Students wishing to enter and participate in the Co-op Option must meet the following requirements:

## Declaration and Entrance Requirements:

- Declaration of Co-op specialization in the Bachelor of Technology in Information Technology program.
- Minimum GPA of 2.5
- Maximum of 75 credits completed

## Work Term and Program Continuance Requirements:

Procedures for enrolment in Co-operative Education work terms are outlined in the COOP course descriptions. Conditions for continuance in the program are:

- Successful completion of COOP 1101 prior to completing 75 credits
- Minimum GPA of 2.5
- Instructor Permission

## Co-op Course Requirements

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

COOP 1101	Job Search Techniques	1 credit
COOP 1150	Co-op Work Semester 1	9 credits
COOP 2150	Co-op Work Semester 2	9 credits
COOP 3150	Co-op Work Semester 3	9 credits

### Optional:

COOP 4150	Co-op Work Semester 4	9 credits
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**Note: These COOP courses must be completed sequentially. COOP 1150, 2150, 3150, or 4150 may be taken part-time over two consecutive semesters as COOP 1150A/1150B, COOP 2150A/2150B, COOP 3150A/3150B or COOP 4150A/4150B. Co-op courses may be used only to satisfy the Co-op designation and cannot be used to satisfy other curricular requirements of the program.**

## Additional Requirements

In addition to the requirements stated above, all Co-op students must satisfy the General Co-operative Education Requirements.

## OTHER INFORMATION

Students enrolled in this program are expected to have their own laptop computers.

## CREDENTIAL AWARDED

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**.