<u>**Faculty of Business and Information Technology**</u>

Bachelor of Informatics to Technology Management major and minor in Bachelor of Commerce

Major Program Modification

January 2017

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Motion: That CPRC recommend to Academic Council the approval of the Technology Management major and minor in the Bachelor of Commerce.

1. Rationale and Introduction

In April 2016 Academic Council approved the Bachelor of Informatics degree with a Major in Business Technology Management; this proposal was subsequently approved by the Board of Governors and submitted to the Ontario Universities Council on Quality Assurance (Quality Council) and the Ministry of Advanced Education and Skills Development. Following its review, the Quality Council raised concerns about the Bachelor of Informatics degree program. After discussion with the Quality Council and the Office of the Provost, the decision was made to convert the proposed Bachelor of Informatics Technology Management Major into majors in our existing Bachelor of Commerce and Bachelor of Information Technology degrees. This proposal outlines the Bachelor of Commerce major in Technology Management. The proposal also describes a minor in Technology Management and two Bachelor of Commerce Diploma to Degree pathways; one for students with a college business diploma in Marketing, and one for college business diploma in Entrepreneurship.

The major and minor in Technology Management offer a balance of business and information technology courses designed to meet the needs of today's technology-enabled economy. The program will develop student skills in data analytics, information systems, change management, and data security. This major focuses on the business aspects of information technology management and is complemented with systems analysis skills. Students enrolled in this major are encouraged to also pursue a minor in data science to further develop their technical skills in preparation for careers in business analysis. Students completing this program including electives in data science will qualify for the Certified Business Technology Manager (CBTM) designation from Canadian Coalition for Tomorrow's ICT (Information Communication Technology) Skills (CCICT), once they obtain sufficient work experience. The major will be ready for a September 2017 start. The degree to diploma program bridges could begin at Durham College in Fall 2017 with students entering UOIT in Sept. 2019.

This major is consistent with UOIT's mandate and FBIT's priority to be market relevant. It also builds on and supports UOIT's and FBIT's priorities to develop pathways for students from college programs. Existing pathways, and others in development, are intended to align with this program. The focus on informatics integrates with research being conducted in the Informatics Research Institute and in associated incubators. It is a direct response to market demand for professionals with domain specific knowledge and ICT related skills. According to Statistics Canada (2008) the labour market for professionals with business informatics skills was an IT occupation that continued to thrive through the recession due to industry need.

Description of the ways in which the major fits into the broader array of program offerings:

The BCom – Technology Management major will take advantage of UOIT and FBIT's existing strengths. The interdisciplinary nature of the Faculty of Business and Information Technology will expose students in the major to additional perspectives on the impact of technology and information systems on individuals, organizations, and society. In particular, the BCom – Technology Management major will complement the proposed new BIT – Technology Management major by developing graduates with a higher level of management related skills who will be able to work with the technical analyst input from the BIT – Tech. Management graduates. These two majors will allow for graduates from UOIT across the entire spectrum of technology management needs expressed by industry. We will be the only school in Canada to offer this diversity of skill development in technology management. We have over 30 faculty members with expertise in Business or Technology Management disciplines. They are all active and productive in terms of teaching and research. The existing degree requirements for the Bachelor of Commerce program will complement the learning outcomes of the Technology Management major by providing domain specific expertise and examples that would be faced by graduates throughout their careers. Students in the Technology Management major will be able to work on interdisciplinary projects with colleagues from other FBIT majors that will reflect real-world environments.

This program also complements existing graduate programs at UOIT in Computer Science, Information Technology Security, and Health Informatics. In addition, the development of the proposed major will help strengthen existing relationships and develop new partnerships through national (e.g. Canadian Neonatal Network, Canadian Advanced Technology Alliance, IBM, TD Bank, RBC, Canadian Coalition for Tomorrow's ICT Skills) and regional organizations (e.g. Durham Region).

Technology Management Major

According to Canadian Coalition for Tomorrow's ICT Skills (CCICT) there is a large industry-based need for professionals with business skills who have relevant information communication technology (ICT) skills to help achieve high levels of productivity and innovation, and to develop competitive advantages in Canadian organizations. Statistics Canada data provides supporting evidence for this need as employment in the Information Systems and Business Analyst area grew 38% from June 2009 to June 2010. This need has continued to grow with deficits in skilled labour expected in both Canada and the US. Given the increased level of ICT integration into all business processes, graduates with these skills are increasingly in demand by employers in all sectors.

In 2010 CCICT launched a $2 million "digital jobs for tomorrow" campaign for the development of business informatics programs and to support university partners and students enrolled in accredited programs. CCICT has created a certification to encourage and accredit programs in business technology management. The Bachelor of Commerce Technology Management major achieves most of the required learning outcomes to meet the CCICT's accreditation standards. Students are encouraged to discuss with their academic advisor the specific electives required in data sciences to complete the CCICT accreditation requirements. Students completing the major with appropriate data science electives would qualify to become Certified Business Technology Manager (CBTM), once they complete the work experience requirements.

Graduates from Commerce programs with a major in Technology Management find employment identifying business problems and needs in order to design, implement, and maintain solutions that help organizations transform their business processes and information systems to meet the needs of the organization. This includes all types of information systems from office communication systems to strategic digital dashboards. Depending on the collection of electives the student pursue, graduates will be qualified to hold positions such as business-IT advisors, business analytics consultants, information systems analysts, technical writers, and ICT managers. Roles include:

- Analysis, planning and design of information systems
- Design of IT solutions for problems related to a specific department or domain
- Technical writing and documentation development
- Modeling and IT-supported optimization of business processes (e.g. process re-engineering)
- Design of high-quality interactive systems from the aspect of both task and application design.

Societal Need

Employers need people who understand how to leverage technology to meet the changing needs of the global economy to provide a competitive advantage for their organization in the marketplace. Demand in informatics related professions is high and growing fast. Already more than 200,000 professionals are in business technology management jobs in Canada. It is estimated that employers in every industry will need 182,000 more ICT employees by 2019 (Digital Adoption Compass, 2014). Ontario is estimated to need 76,300 ICT employees by 2019 with 52,700 of those positions needed in the Greater Toronto Area (Digital Adoption Compass, 2014). Graduates from the Technology Management major will help drive technology-enabled changes within Canada and the global economy, helping to improve innovation and economic growth.

Employers are looking for graduates who will have a clear ability to analyze situations, design appropriate technology-enabled solutions, and communicate these solutions effectively to non-technology savvy individuals. The graduates will need strong leadership and project management skills to solve problems and implement solutions.

Duplication

Programs in business technology management are currently available at Ryerson University, York University, University of Toronto – Mississauga campus, Wilfrid Laurier University, and the University of Waterloo. None of these programs offer pathways. UOIT is the only university that integrates information technology and business in the same faculty, which is a significant advantage for the achieving integrated IT-business perspective needed for success in this field.

The immersive experiential learning approach is not available in technology management programs any Ontario university or college program. Consultations with industry and accreditation bodies have all underscored the need for

in-depth experiential learning, so students from the UOIT program will have a competitive advantage in the labour market. Focusing the program on emergent fields and integrating the theoretical components with the application in emerging markets will ensure students are at the cutting edge and uniquely qualified as these markets expand.

Degree Requirements

a. Program Learning Outcomes – Major in Business Technology Management

Please see **Appendix A** for tables listing the Technology Management major program learning outcomes for the Bachelor of Commerce program.

b. Admission Requirements

Students can apply to have Technology Management minor or minor added to their program in the winter semester of their second year in the program. Admission is competitive and based on performance in the program as well as previous courses. Students in the Bachelor of Commerce program must have a minimum 2.3 GPA (C+ average on a 4.3 scale) to be considered as well as at least a C+ in BUSI 1520U – Business Computer Applications. Students will be notified by their academic advisor by the end of June in their second year if they are accepted into their desired minor program.

c. Program Structure

Calendar copy and program maps for the proposed major can be found in **Appendix B**.

d. Program Content

Course outlines and new course forms can be found in **Appendix C.**

RESOURCE REQUIREMENT

e. Faculty members

List of core faculty associated with the new program component, including appointment status, home unit, areas of teaching and research interests, supervisory experience (graduate programs only), and any new faculty requirements and gaps they would be expected to fill – see **Appendix D**

a) Additional academic and non-academic human resources
None required.

b) Physical resource requirements
No additional resources will be required.

2. BUSINESS PLAN
a) Statement of funding requirements
There are no additional funding requirements as the courses that make up the major are already being offered through the BCom and BIT programs.

b) Statements of resource availability
N/A

3. TIMELINE/DATE OF IMPLEMENTATION
Advertise in September 2017 and would commence September 2018.

APPROVAL DATES

Date of Submission to CPRC	January 9, 2017
Faculty Council Approval	January 12, 2017
CPRC or GSC Approval	January 20 2017
Academic Council Approval	

APPENDIX A

Program Level Learning Outcomes	Course(s) or Course Segments that Contribute to this Outcome
Graduates of this program have reliably demonstrated the ability to:	
1) Show evidence of relevant knowledge of the internal aspects, functions and processes of organizations, the external environment in which they operate, and the ways in which they are managed	- Management of the Enterprise - External Environment of Management - Micro- and Macroeconomics - Business Ethics - Introduction to Entrepreneurship - International Business - International Management. - Strategic Management I and II "UOIT Edge" (BComm Capstone Study Project)*
2) Exhibit coherent knowledge of the key functional areas of business and management, the relationship between these, their application and their importance in an integrated framework	- Management of the Enterprise - Financial and Managerial Accounting - Organizational Behaviour and Introduction to Human Resources Management - Marketing Management - Finance I and II - Introduction to Operations Management and Introduction to Project Management and Supply Chain Management - Strategic Management I and II "UOIT Edge" (BComm Capstone Study Project)
3) Explain some of the contexts in which accounting concepts and practices are utilized and use the main current technical language and practices of accounting for managerial applications	- Financial Accounting I and II - Managerial Accounting - All Accounting Electives, "UOIT Edge" (BComm Capstone Study)
4) Understand economic concepts, principles, theories and modeling approaches and explain their use in the context of making business decisions	- External Environment of Business - Micro- and Macroeconomics

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Program Level Learning Outcomes	Course(s) or Course Segments that Contribute to this Outcome
Graduates of this program have reliably demonstrated the ability to:	
5) Use business models and methodologies, both qualitative and quantitative, effectively across a range of problems	- Mathematics Foundations for Business - Statistics - Introduction to Operations Management and Introduction to Project Management and Supply Chain Management "UOIT Edge" (BComm Capstone Study)
6) Apply the knowledge of organizational behaviour and the human resource function to the management and development of people within organizations	- Collaborative Leadership - Organizational Behaviour and Introduction to Human Resources Management - Business Ethics - All Human Resource Management Electives "UOIT Edge" (BComm Capstone Study Project)
7) Use relevant communication and information technologies to acquire, analyze and communicate data and to support business and management processes	- Introduction to Programming - Information Systems "UOIT Edge" (BComm Capstone Study Project) - Most required and elective BComm courses have technology themes and/or require the use of technology for assignments, communications, discussions, and/or presentations.
8) Understand the principles and process of information systems analysis and describe the organizational opportunities and challenges related to the use of computer-based technology.	- Information Systems - Introduction to Programming - Some e-Commerce electives
9) Understand the development and operation of markets for resources, goods and services and to devise market-oriented strategies and policies to support the operational and strategic management of an organization	- External Environment of Management - Microeconomics - Marketing Management - Strategic Management I and II "UOIT Edge" (BComm Capstone Study Project) - Some marketing elective courses

Program Level Learning Outcomes	Course(s) or Course Segments that Contribute to this Outcome
Graduates of this program have reliably demonstrated the ability to:	
10) Comprehend theories and empirical evidence concerning financial management, risk and the operation of capital markets	▪ Finance I and II ▪ All Finance Electives
11) Apply knowledge of the operations processes and systems required in the management of manufacturing, distribution and services to the operation of an organization	▪ Introduction to Operations Management ▪ Introduction to Project Management and Supply Chain Management Operations and Project Management, ▪ "UOIT Edge" (BComm Capstone Study Project)
12) Assess, select and devise customer service strategies to meet the expectations and needs of internal and external customers	▪ Marketing Management ▪ Marketing electives ▪ "UOIT Edge" (BComm Capstone Study Project)
13) Use knowledge of functional business components and logistics strategies to effect change in the inter-related supply chain management system	▪ Introduction to Operations Management ▪ Introduction to Project Management and Supply Chain Management ▪ "UOIT Edge" (BComm Capstone Study Project)
14) Define appropriate practices within a professional, legal and ethical framework	▪ Management of the Enterprise ▪ External Environment of Management ▪ Business Ethics ▪ Legal Environment of Business ▪ "UOIT Edge" (BComm Capstone Study Project)
15) Utilize project management and business planning skills to initiate and carry out projects in a timely and proficient manner	▪ Introduction to Operations Management and Introduction to Project Management and Supply Chain Management ▪ "UOIT Edge" (BComm Capstone Study Project) ▪ Project management and planning skills are also developed in courses that have major projects as part of the course requirements.

Program Level Learning Outcomes	Course(s) or Course Segments that Contribute to this Outcome
Graduates of this program have reliably demonstrated the ability to:	
16) Conduct systematic research into issues related to the discipline, deploying accurately established techniques of analysis and enquiry	- Strategic Management I and II "UOIT Edge" (BComm Capstone Study Project) - First year courses develop an understanding of the issues confronting the functional areas of business. First and second year courses present fundamental knowledge needed to understand a discipline and introduce the tools needed to work in that discipline. Upper-year courses allow students to build on the basics and research and investigate issues in a field by applying appropriate tools of analysis and enquiry.
17) Communicate information, ideas, problems and solutions persuasively and accurately, using oral, written and visual form, to specialist and non-specialist audiences	Most BComm courses achieve this objective. Most courses have some of: essays, projects, presentations, case analyses, and class discussions, which require and develop communications skills.
18) Display well-developed leadership and interpersonal skills in team environments	- Collaborative Leadership - Strategic Management I and II "UOIT Edge" (BComm Capstone Study Project) - Many of the BComm's elective courses have group work project that develop leadership and interpersonal skills in team environments
19) Exhibit an awareness of the society and culture in which they live and work and recognize and value the alternative outlooks that people from diverse backgrounds my bring to business and management issues	- External Environment of Management - Collaborative Leadership - Business Ethics - Organizational Behaviour - Introduction to Human Resource Management - International Business - International Management "UOIT Edge" (BComm Capstone Study Project)

Program Level Learning Outcomes	Course(s) or Course Segments that Contribute to this Outcome
Graduates of this program have reliably demonstrated the ability to:	
20) Apply the cognitive skills of critical thinking, analysis and synthesis to evaluate evidence and arguments, analyze data, identify assumptions and formulate informed and innovative solutions to problems.	- Development and practice of high-level thinking skills are central to the BComm. This learning outcome is achieved in many courses in the program in all academic years, but especially in The "UOIT Edge" (BComm Capstone Study Project). The Capstone requires integration of material from throughout the BComm and the use knowledge, skills, and abilities from individual courses to critically evaluate an organization or business problems (identify, analyze, evaluate, etc.) and recommend solutions. - Instructors can better evaluate whether students are achieving this objective in third and fourth years because class sizes are smaller and more effective evaluative tools can be used.
21) Appreciate the uncertainty, ambiguity, and limits of knowledge and develop strategies for continuing professional development and lifelong learning.	- The "UOIT Edge" (BComm Capstone Study Project) provides hands on experience toward this learning outcome by requiring students to work with real world businesses and real world problems where uncertainty and ambiguity are an inherent part of the environment. - Many other BComm courses develop an understanding and appreciation of the uncertain and ambiguous environment of business. - Many courses help students appreciate the continuously changing nature of the business environment and the need to adapt to change so that they can continue to be effective managers.

Appendix B

Technology Management Major

The Technology Management major is offered to students interested in interdisciplinary studies in Commerce and Information Technology. The program will develop student skills in data analytics, information systems, change management, and data security. This major focuses on the business aspects of information technology management and is complemented with systems analysis skills. Students enrolled in this major are encouraged to also pursue a minor in data science to further develop their technical skills in preparation for careers in business analysis. Students completing this program including electives in data science will qualify for the Certified Business Technology Manager (CBTM) designation from Canadian Coalition for Tomorrow's ICT (Information Communication Technology) Skills (CCICT), once they obtain sufficient work experience. Graduates will be qualified to hold positions such as business-IT advisors, business analytics consultants, information systems analysts, technical writers, and ICT managers.

Program details and degree requirements – Technology Management

To be eligible for the honours Bachelor of Commerce degree, students must successfully complete 120 credit hours, including all courses outlined in the following program map.

Although reasonable efforts will be made to adhere to the following program map, course requirements and term offerings may change. For the most up-to-date list of course offerings, please visit the faculty website at businessandit.uoit.ca.

Year 1
Semester 1 (15 credit hours)
- BUSI 1010U – Critical Thinking and Ethics
- BUSI 1520U – Business Computer Applications
- BUSI 1600U – Management of the Enterprise
- BUSI 1915U – Business Math I
- ECON 2010U – Microeconomics

Semester 2 (15 credit hours)
- General Elective*
- BUSI 1020U – Business Communications
- BUSI 1916U – Business Math II
- BUSI 1130U – Introduction to Financial Accounting
- ECON 2020U – Macroeconomics

Year 2
Semester 1 (15 credit hours)
- BUSI 1450U – Statistics
- BUSI 2180U – Managerial Accounting
- BUSI 2200U – Marketing Management or General Elective
- BUSI 2311U – Organizational Behaviour
- BUSI 2401U – Finance I

Semester 2 (15 credit hours)
- General Elective
- BUSI 2200U – Marketing Management or General Elective
- BUSI 2312U – Human Resources Management
- BUSI 2402U – Finance II
- BUSI 2603U – Introduction to Operations Management

Year 3
Semester 1 (15 credit hours)
- Technology Management Course
- Technology Management Course
- Technology Management Course
- Open Elective

One of:
- BUSI 3040U – Information Systems or
- BUSI 3705U – Legal Environment of Business

Semester 2 (15 credit hours)
- Technology Management Course
- Technology Management Course
- Open Elective
- Open Elective

One of:
- BUSI 3040U – Information Systems or
- BUSI 3705U – Legal Environment of Business

Year 4
Semester 1 (15 credit hours)
- Technology Management Course
- Technology Management Course
- Open Elective
- Business Elective
- BUSI 4701U – Strategic Management
- BUSI 4990U – Capstone Study Project I

Semester 2 (15 credit hours)
- Technology Management Course
- Technology Management Course
- Open Elective
- Business Elective
- BUSI 4995U – Capstone Study Project II

Electives
Students in the Technology Management major must complete 10 elective courses as a part of their degree requirements. The electives are divided as follows:

- Three General Electives (9 credit hours). A general elective is considered a course outside of business (i.e. without the BUSI prefix).

- Two Business Electives (6 credit hours) in business courses outside of one's major.

- Five Open Electives (15 credit hours). Open electives can be either General or Business electives. A maximum of two (6 credit hours) of these electives can consist of courses within one's major.

Technology Management major requirements
The Technology Management major in the Bachelor of Commerce (Honours) program requires a minimum of 30 credit hours in technology management courses.
Technology Management core courses
- BUSI 2550U – Introduction to Project Management
- BUSI 3040U – Information Systems

- BUSI 3330U – Management of Change
- BUSI 3504U – Database Systems and Business Intelligence
- BUSI 3550U – Systems Analysis and Design
- BUSI 3670U – Risk Management
- BUSI 4570U – Strategic Information Technology Management
- BUSI 4590U – Topics in Informatics
- INFR 2600U – Introduction to Computer Security
- INFR 4680U – It Security, Policy, and Procedures

Technology Management Minor

General information

The Technology Management minor is available to students in UOIT's Bachelor of Commerce programs. The Bachelor of Commerce (Honours) degree with a Technology Management minor requires a minimum of 18 credit hours in technology management courses. Students must complete four technology management core courses and a minimum of two technology management elective courses (as below).

Admission requirements

Students can apply to have Technology Management minor added to their program in the winter semester of their second year in the program. Admission is competitive and based on performance in the program as well as previous business courses. Students must have a minimum 2.3 GPA (C+ average on a 4.3 scale) to be considered as well as at least a C+ in BUSI 1520U – Business Computer Applications. Students will be notified by their academic advisor by the end of June in their second year if they are accepted into their desired minor program.

Technology Management minor core courses

- BUSI 2550U – Introduction to Project Management
- BUSI 3040U – Information Systems
- BUSI 3504U – Database Systems and Business Intelligence
- BUSI 3550U – Systems Analysis and Design

Technology Management minor electives (two required)

- BUSI 3330U – Management of Change
- BUSI 3670U – Risk Management
- BUSI 4570U – Strategic Information Technology Management
- BUSI 4590U – Topics in Informatics
- INFR 2600U – Introduction to Computer Security
- INFR 4680U – It Security, Policy, and Procedures

Bachelor of Commerce – Honours

Technology Management Major (from Entrepreneurship and Small Business Diploma)

Year 1 Fall	BUSI 1520U Business Computer Applications	BUSI 1010U Critical Thinking and Ethics	BUSI 1600U Management of the Enterprise	BUSI 1915U Business Math I	ECON 2010U Microeconomics
Year 1 Winter	BUSI 1130U Introduction to Financial Accounting	BUSI 1020U Business Skills and Communications	General Elective	BUSI 1916U Business Math II	ECON 2020U Macroeconomics

Year 2 Fall	BUSI 2180U Managerial Accounting	BUSI 2200U Marketing Management **or** General Elective	BUSI 2311U Organizational Behaviour	BUSI 1450U Statistics	BUSI 2401U Finance I
Year 2 Winter	General Elective	BUSI 2200U Marketing Management **or** General Elective	BUSI 2312U Introduction to Human Resources Management	BUSI 2603U Introduction to Operations Management	BUSI 2402U Finance II

Year 3 Fall	BUSI 3040U – Information Systems **or** BUSI 3705U – Legal Environment of Business	BUSI 3550U Systems Analysis & Design	BUSI 2550U Introduction to Project Management	INFR 2600U Introduction to Computer Security	Open Elective
Year 3 Winter	BUSI 3040U – Information Systems **or** BUSI 3705U – Legal Environment of Business	BUSI 3504U Database Systems and Business Intelligence	BUSI 3670U Risk Management **or** BUSI 3330U Management of Change	Open Elective	Open Elective

Year 4 Fall	BUSI 4701U Strategic Management	BUSI 4591U Topics in Technology Management	INFR 4680U IT Security, Policy & Procedures	BUSI Elective	Open Elective
Year 4 Winter	BUSI 4995U Capstone Study Project	BUSI 4570U Strategic Information Technology Management	BUSI 3670U Risk Management **or** BUSI 3330U Management of Change	BUSI Elective	Open Elective

*Students must register in BUSI 4990U – Capstone Study Project I in fall of year 4. This non-credit course is a prerequisite for BUSI 4995U – Capstone Study Project II.

Explanation of Electives

BUSI Elective: A course in business, but _outside of your major_. For example – BUSI 1700U – Introduction to Entrepreneurship or BUSI 2000U – Collaborative Leadership. Students require a minimum of two BUSI electives. General Elective: A course outside of business. For example – PSYC 1000U – Introduction to Psychology or SCIE 1920U – Introduction to Astronomy. Accounting students require a minimum of four general elective courses. Open Elective: Can be a BUSI or general elective. If applicable, minor courses should be taken in these spots. Students may have up to two of these Open Electives consist of elective courses within their major. Remember, it is your responsibility to ensure that you are aware of and have met the necessary degree requirements of both the program and the respective major and minor. Please be sure to contact your academic advisor if you have any questions regarding your course selection. If you do not know who your advisor is, please email FBITadvising@uoit.ca to find out.

Transfer credits
Bridge courses

Bachelor of Commerce – Honours
Technology Management Major (from 2yr Marketing)

Year 1 Fall	BUSI 1520U Business Computer Applications	BUSI 1010U Critical Thinking and Ethics	BUSI 1600U Management of the Enterprise	BUSI 1915U Business Math I	ECON 2010U Microeconomics
Year 1 Winter	BUSI 1130U Introduction to Financial Accounting	BUSI 1020U Business Skills and Communications	General Elective	BUSI 1916U Business Math II	ECON 2020U Macroeconomics

Year 2 Fall	BUSI 2180U Managerial Accounting	BUSI 2200U Marketing Management **or** General Elective	BUSI 2311U Organizational Behaviour	BUSI 1450U Statistics	BUSI 2401U Finance I
Year 2 Winter	General Elective	BUSI 2200U Marketing Management **or** General Elective	BUSI 2312U Introduction to Human Resources Management	BUSI 2603U Introduction to Operations Management	BUSI 2402U Finance II

Year 3 Fall	BUSI 3040U – Information Systems **or** BUSI 3705U – Legal Environment of Business	BUSI 3550U Systems Analysis & Design	BUSI 2550U Introduction to Project Management	INFR 2600U Introduction to Computer Security	Open Elective
Year 3 Winter	BUSI 3040U – Information Systems **or** BUSI 3705U – Legal Environment of Business	BUSI 3504U Database Systems and Business Intelligence	BUSI 3670U Risk Management **or** BUSI 3330U Management of Change	Open Elective	Open Elective

Year 4 Fall	BUSI 4701U Strategic Management	BUSI 4591U Topics in Technology Management	INFR 4680U IT Security, Policy & Procedures	BUSI Elective	Open Elective
Year 4 Winter	BUSI 4995U Capstone Study Project	BUSI 4570U Strategic Information Technology Management	BUSI 3670U Risk Management **or** BUSI 3330U Management of Change	BUSI Elective	Open Elective

***Students must register in BUSI 4990U – Capstone Study Project I in fall of year 4. This non-credit course is a
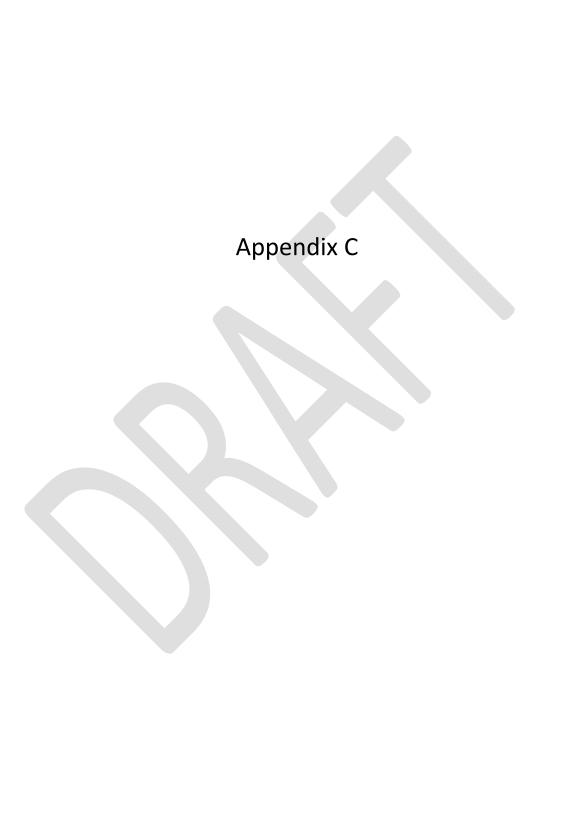
Explanation of Electives

BUSI Elective: A course in business, but _outside of your major_. For example – BUSI 1700U – Introduction to Entrepreneurship or BUSI 2000U – Collaborative Leadership. Students require a minimum of two BUSI electives. General Elective: A course outside of business. For example – PSYC 1000U – Introduction to Psychology or SCIE 1920U – Introduction to Astronomy. Accounting students require a minimum of four general elective courses.

Open Elective: Can be a BUSI or general elective. If applicable, minor courses should be taken in these spots. Students may have up to two of these Open Electives consist of elective courses within their major. Remember, it is your responsibility to ensure that you are aware of and have met the necessary degree requirements of both the program and the respective major and minor. Please be sure to contact your academic advisor if you have any questions regarding your course selection. If you do not know who your advisor is, please email FBITadvising@uoit.ca to find out.

Transfer credits
Bridge courses

Appendix C

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

Faculty: Faculty of Business and IT		
Course title: Strategic Information Technology Management		
Course number: BUSI 4570U	**Cross-listings:**	_X___ Core ___ Elective **If Elective, for which program (s):**
Credit weight: 3 CR	**Face to Face Contact hours: 3 hr**__ Lecture ___ Lab ___Tutorial Hybrid (1.5 face to face time, 1.5 Web) Yes ___ NO ___ Web Portion: Do you require Adobe Connect? Yes ___ NO___	

CALENDAR DESCRIPTION

Information technology (IT) has the potential to change the landscape of global competition, increase productivity, change industry structure, make markets more efficient and alter a firm's competitive position. IT can increase the efficiency of every business activity including product design, production, purchasing, marketing, customer-supplier relationships and human resource management. Economists agree that IT has contributed significantly to productivity growth and helped check inflation. Such beliefs and promises have persuaded corporations to spend over a trillion dollars on IT alone over the last decades. However, the dramatic decline in IT investments after 2000–2001 and the difficulty researchers have had in tying IT investments to corporate performance has led sceptics to question the economic contribution of IT. Indeed, the rapid rate of IT innovation, massive investments in the IT infrastructure and applications, the difficulty in showing the competitive impact of IT investments and conflicting viewpoints regarding the value of IT raise a gamut of issues for managers in user organizations, financial institutions, vendor organizations and consulting firms: Do IT and the Internet change basic economic principles and strategies? Does the ability to search, seek and share information regardless of time, space and geographical differences increase market efficiency? Is such efficiency beneficial to all market participants? How and where can IT benefit an organization? Are there any killer applications that can still justify large investments in IT infrastructure? Which types of information technologies hold promise for the future? This course has been designed to provide frameworks and underlying principles to address these and other related issues.

Prerequisites	
Co-requisites	
Credit restrictions	
Credit exemptions	
Grading Scheme	X☐ **Letter Grade** ☐ **pass/fail**

LEARNING OUTCOMES

By the end of the semester students will develop an understanding of and appreciation for:
(i) the impact of IT on economies, industry sectors, and businesses
(ii) emerging technology infrastructure and its role in the modern organization
(iii) approaches to justifying initiatives requiring information technology investments
(iv) governance of information technology decisions in today's firms

DELIVERY MODE AND TEACHING METHOD (S):

(check all that may apply)	**X face-to-face**	**hybrid**	**online**

TEACHING AND ASSESSMENT METHODS

Case discussion based on assigned readings, individual research, lecture and other materials.

CONSULTATION AND FINANCIAL IMPLICATIONS, WHERE APPROPRIATE

New Course Proposal Detail

INSTRUCTION:

PLANNED FREQUENCY OF OFFERING AND NUMBER OF SECTIONS ANTICIPATED (EVERY YEAR, ALTERNATE YEARS ETC.)

Every Year

NUMBER OF FACULTY MEMBERS CURRENTLY COMPETENT TO TEACH THE COURSE:

2

INSTRUCTOR (S) LIKELY TO TEACH THE COURSE IN THE COMING YEAR:

SAMPLE TEXTBOOK

Managing and Using Information Systems: a Strategic Approach

ANY RESOURCES TO BE PURCHASED/PROVIDED BY STUDENTS:

Course text (TBD), cases for discussion (for illustration, published cases such as Offshoring at Global Information Systems, Inc.; Enterprise Systems at ICL; STARS Air Ambulance- An Information Systems Challenge; Google, Inc.; Mercedes-Benz USA: Investing in IT Infrastructure; Cisco Systems, Inc.: Implementing ERP; Cisco Systems: Web-enablement; Cisco Systems Architecture: ERP and Web-enabled IT; Cisco Systems: Building Leading Internet Capabilities)

CREATOR : _____

FACULTY QUALIFICATIONS (ACADEMIC AND EXPERIENCE) TO TEACH THE COURSE:

Ph.D. in Information Systems
MBA with course work in Information Systems
Background in IT and/or Information Strategy

BIBLIOGRAPHY:

OTHER RESOURCES:

Course requires a technology-enhanced case discussion classroom with laptop connections, data projector, and internet access (such classrooms exist in current facilities). No special equipment or lab facilities are required. Additional materials may be requested for addition to the Library holdings or periodical subscriptions.

COURSE RATIONAL:

Required core course for Technology Management Major

FACULTY APPROVAL FOR CROSS-LISTINGS:

APPROVAL DATES:

Date of submission	*January 9, 2017*
Curriculum Committee approval	*January 10, 2017*
Faculty Council approval	*January 12, 2017*

COURSE CHANGE TEMPLATE

For new courses see New Course Template

Faculty: Faculty of Business and IT
Program: Bachelor of Commerce

Course number: BUSI 4590U	**Current course title: Special Project in E-Business and E-Commerce**
__ __ Core _x___ Elective	

COURSE CHANGES (check all that apply)

x	Course title		Credit weighting
x	Course description		Contact hours
	Course number		Prerequisites
	Course design		Co-requisites
	Learning outcomes		Cross-listings
	Mode of delivery		Credit restrictions
	Teaching and assessment methods		Credit exclusions

REASON FOR CHANGE AND WAYS IN WHICH IT MAINTAINS/ENHANCES COURSE OBJECTIVES

This is now a core course for the Technology Management major in the IT Program.

CHANGE TO CALENDAR ENTRY

Current	Proposed
This course is an exploration of current issues and topics in e-business and e-commerce. Specific topics and any additional prerequisites will be announced in the schedule each time this course is offered. This course may be retaken with a change in topic to a maximum of 9 credits.	**New title: Topics in Informatics** This course will cover topics in informatics including process modeling, IT governance, and change management. Students will learn the techniques and tools used to design, model, and analyze business processes. They will explore both micro and macro elements of change management will be considered including the importance of management support, the use of communication models to support change, and change within the broader context of organizational growth and adaptation. This course will also introduce students to various IT governance models including ITIL, COBIT, and SOA. Students will learn how IT governance decision affect organizational productivity. Pre-Req: Year 3 standing in Business or Information Technology Program

CONSULTATION AND FINANCIAL IMPLICATIONS, WHERE APPROPRIATE

APPROVAL DATES

Date of submission	**January 9, 2017**
Curriculum Committee approval	**January 10, 2017**
Faculty Council approval	**January 12, 2017**

Appendix D

Faculty members, current

Faculty Name	M/F	Rank	Possible Courses
Aamir, Asifa	F	Teaching Focus	• INFR 1016U Introductory Calculus • BUSI 1915U Business Math I • BUSI 1916U Business Math II
Akalu, Rajen	M	Assistant Professor	• INFR 1550U – Law and Ethics of IT
Akbari, Amir	M	Assistant Professor	• BUSI 2410U – Managerial Finance
Akbari, Hamid	M	Assistant Professor	• BUSI 3700U – Strategic Management for Professionals
Rubel, Ashfakuddin	M	Teaching Focus	• BUSI 2050U – Managerial Economics
Bowen, Jane	F	Teaching Focus	• BUSI 2120U – Accounting for IT
Chang, Bin	F	Assistant Professor	• BUSI 2410U – Managerial Finance
Chen, Cuiping	F	Assistant Professor	• BUSI 1600U – Management of the Enterprise
El-Khatib, Khalil	M	Associate Professor	• INFR 1100U – Introduction to Programming • INFR 2600U – Introduction to Computer Security
Friedlan, John	M	Associate Professor	• BUSI 2120U – Accounting for IT
Goodman, Bill	M	Professor	• BUSI 1450U – Statistics • BUSI 2603U – Intro to Operations Management • BUSI 3670U – Risk Management Frameworks • BUSI 2610U – Quality Improvement • BUSI 3730U - Forecasting
Hall, Athina	F	Teaching Focus	• BUSI 2120U – Accounting for IT
Hayes, Garrett	M	Teaching Focus	• INFR 2600U Introduction to Computer Security • INFR 2670U Introduction to Cloud Services • INFR 4680U IT Security, Policy and Procedures
Heydari, Shahram	M	Associate Professor	• BUSI 3580U – Network Systems
Hossein, Mehdi	M	Teaching Focus	• BUSI 4570U – Strategic Information in Technology Management
Krystyniak, Karolina	F	Assistant Professor	• BUSI 2410U Managerial Finance
Hung, Patrick	M	Associate Professor	• INFR 2600U – Introduction to Computer Security • BUSI 3502U – e-Commerce • BUSI 3530U – Website Design and Management • BUSI 3730U – Multimedia Systems
Ibrahim, Amin	M	Teaching Focus	• BUSI 1520 Business Computer Applications • INFR 1040U – Mathematics I • INFR 1041U – Mathematics II • INFR 1100U – Introduction to Programming • INFR 2140U – Object Oriented Programming
Jain, Chinmay	M	Assistant Professor	• BUSI 2410U – Managerial Finance
Jiang, Annie	F	Associate Professor	• BUSI 2205U – Principles of Marketing
Jones, Ferdinand	M	Teaching Faculty	• BUSI 2120U Accounting for IT
Kapralos, Bill	M	Associate Professor	• INFR 1100U – Introduction to Programming • INFR 2140U – Object Oriented Programming • INFR 2810U – Computer Architecture

Karray, Salma	F	Associate Professor	• BUSI 2205U – Principles of Marketing
Konopaski, Michael	M	Teaching Faculty	•
Kotlyar, Igor	M	Associate Professor	• BUSI 3330U – Management of Change
Krasman, Joseph	M	Associate Professor	• BUSI 2311U – Organizational Behaviour • BUSI 3330U – Management of Change
Krystyniak, Karolina	F	Assistant Professor	• BUSI 2410U – Managerial Finance
Lin, Xiaodong	M	Associate Professor	• INFR 4680U – IT Security Policies and Procedures • INFR 4681U –Policies and Procedures in healthcare and IT
Lowe, Josh	M	Teaching Focus	• BUSI 3580UB – Network Systems
Lu, Fletcher	M	Associate Professor	• INFR 1040U – Mathematics I • INFR 1041U – Mathematics II • BUSI 3504U – Databases and Business Intelligence
Marsh, Steve	M	Assistant Professor	• BUSI 3040U – Information Systems • BUSI 4590U – Topics in Informatics • BUSI 4610U – Simulation Modeling • BUSI 4510U – Knowledge Management and Enterprise Systems • BUSI 4599U – Directed Studies in Informatics • BUSI 4590U – Special Projects in Informatics
McRae, Brent	M	Teaching Focus	• BUSI 3580U Network Systems
McGregor, Carolyn	F	Professor	• BUSI 3504U – Databases and Business Intelligence • BUSI 4510U – Knowledge Management and Enterprise Systems • BUSI 2610U – Quality Improvement • BUSI 4504U – Knowledge Discovery and Data Mining • BUSI 4599U – Directed Studies in Informatics • BUSI 4590U – Special Projects in Informatics
Mirza-Babaei, Pejman	M	Assistant Professor	• INFR 4352U – Human Computer Interface and Design
Pazzi, Richard	M	Assistant Professor	• INFR 4680U – IT Security Policies and Procedures
Percival, Jennifer	F	Associate Professor	• BUSI 2311U – Organizational Behaviour • BUSI 3040U – Information Systems • BUSI 4590U – Topics in Informatics • BUSI 4610U – Simulation Modeling • BUSI 3650U – Innovation Management • BUSI 2610U – Quality Improvement • BUSI 4599U – Directed Studies in Informatics • BUSI 459XU – Special Topics in Informatics
Rose, Steve	M	Teaching Focus	• BUSI 1600U – Management of the Enterprise • BUSI 2311U – Organizational Behaviour • BUSI 3700U – Strategic Management for Professionals
Sankaranarayanan, Karthik	M	Assistant Professor	• INFR 1040U – Mathematics I • INFR 1041U – Mathematics II • BUSI 4591U – Topics in Informatics • BUSI 4510U – Knowledge Management and Enterprise Systems • BUSI 3650U – Innovation Management • BUSI 2610U – Quality Improvement • BUSI 4599U – Directed Studies in Informatics • BUSI 4590U – Special Topics in Informatics
Shapiro, Morden	M	Teaching Focus	• BUSI 1600U – Management of the Enterprise
Smimou, Kamal	M	Associate Professor	• BUSI 2410U – Managerial Finance

Sohrab, Serna	F	Assistant Professor	• BUSI 3330U – Management of Change
Thorpe, Julie	F	Associate Professor	• INFR 1100U – Introduction to Programming • INFR 4680U – IT Security Policies and Procedures • INFR 4681U –Policies and Procedures in Healthcare and IT
Thurber, Will	M	Teaching Focus	• BUSI 1010U – Critical Thinking & Ethics • BUSI 1025U - Communications
Vargas Martin, Miguel	M	Associate Professor	• INFR 1040U – Mathematics I • INFR 1041U – Mathematics II • INFR 1100U – Introduction to Programming • INFR 2140U – Object Oriented Programming
Wu, Terry	M	Professor	• BUSI 2205U – Principles of Marketing
Zhu, Ying	F	Associate Professor	• INFR 1100U – Introduction to Programming • INFR 2140U – Object Oriented Programming • BUSI 2810U – Computer Architecture • BUSI 3504U – Databases and Business Intelligence

Faculty members, to be hired

We are in the process of hiring two tenure track positions in operations management who will have expertise in analytics as well as a replacement tenure track position in game development and entrepreneurship. The faculty is also in the process of hiring a teaching focus faculty member in the area of mathematics and another in game design which will increase our capacity to offer courses in fundamental numeracy and human computer interface design.