Major Program Modification

Faculty: Faculty of Business and IT	Date: October 2012
Program: IT Security Bridge – 3 course	

INTRODUCTION

Create a new version of the bridge pathway for 3-year diploma students in an Information and Communication Technology discipline. This reflects the greater breadth of knowledge that these students have compared to students with only a 2 year diploma in similar fields. This will be in-line with the new provincial standard being developed for IT programs.

The title has been updated to reflect that it is in **IT Security bridge** program and the other 5 –Course Bridge is an **IT Security bridge** Program.

The program currently exists as a pathway for both 2 year and 3 year college diploma students. This bridge would only have 3 required courses in the bridge semester. Two elective courses have been removed from the program requirements and allocated as transfer credits.

Currently there is no additional credit given for the additional year of college courses. We are simply making this proposal to reflect two additional electives that would be covered in the material in the additional year of the advanced diploma.

The overview of the program is exactly the same as the existing program. The only difference in the credit of two elective courses for the additional year of college courses.

DEGREE REQUIREMENTS

To be eligible for the Bachelor of Information Technology-IT Security specialization,, students must successfully complete 69 credit hours which would comprise of all core, technical and elective courses outlined in the program map. These students that have a 3-year diploma would receive 51 transfer credit hours.

Program learning outcomes

This degree is awarded to students who have demonstrated:	
1. Depth & Breadth of Knowledge	a. A developed knowledge and critical understanding of the key concepts, methodologies, current advances, theoretical approaches and assumptions in IT Security b. A developed ability to: ⬜ Gather, review, evaluate and interpret information; and ⬜ Compare the merits of alternate hypotheses or creative options, relevant to IT Security d. A developed, detailed knowledge of and experience in research in an area of the discipline e. Developed critical thinking and analytical skills f. The ability to apply learning in a realistic context
2. Knowledge of Methodologies	An understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to: • Evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques • Devise and sustain arguments or solve problems using these methods, and ⬜ Describe and comment upon particular aspects of current research or equivalent

	advanced scholarship
3. Application of Knowledge	a. The ability to review, present and critically evaluate qualitative and quantitative information to: ⬜ Develop lines of argument ⬜ Make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study ⬜ Apply underlying concepts, principles, and techniques of analysis, both within and outside the discipline ⬜ Where appropriate use this knowledge in the creative process b. The ability to use a range of established techniques to: ⬜ Initiate and undertake critical evaluation of arguments, assumptions, abstract concepts and information ⬜ Propose solutions ⬜ Frame appropriate questions for the purpose of solving a problem ⬜ Solve a problem or create a new work c. The ability to make critical use of scholarly reviews and primary sources
4. Communication Skills	The ability to communicate information, arguments, and analyses accurately and reliably, orally and in writing to a range of audiences.
5. Awareness of Limits of Knowledge	An understanding of the limits to their own knowledge and ability, and an appreciation of the uncertainty, ambiguity and limits to knowledge and how this might influence analyses and interpretations.
6. Autonomy & Professional Capacity	a. Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring: ⬜ The exercise of initiative, personal responsibility and accountability in both personal and group contexts; ⬜ Working effectively with others; ⬜ Decision-making in complex contexts; b. The ability to manage their own learning in changing circumstances, both within and outside the discipline and to select an appropriate program of further study; and c. Behaviour consistent with academic integrity and social responsibility.

Admission requirements

 Admission is competitive. The specific average or standing required for admission varies from year to year. Students are

The requirements for admission are the same as the existing BIT-bridge program. The only difference is that students who have an advanced diploma will not qualify for this program with a 3 course bridge while those with only a 2 year diploma will continue to qualify for the existing 5 course bridge version of the pathway.

Program structure

This bridge would only have 3 required courses in the bridge semester. Two elective courses have been removed from the program requirements.

Switch the requirement of INFR2810U Computer Architecture in the bridge to INFR2820U Algorithms and Data Structure to match the provincial standard.

The rest of the program would follow the 5 bridge program map.

Bachelor of Information Technology Bridge Program

~~Networking and~~ IT Security Specialization

Program Map (Proposed – 3 year diploma students without Networking background)

Year-Sem.	Course	Course	Course	Course	Course
BRIDGE	**INFR 2820U** Algorithms and Data Structures (Move to Bridge)	**INFR 1010U** Discrete Mathematics	**INFR 1016U** Introductory Calculus		
3-1	**BUSI 2550U** Introduction to Project Management	**INFR 2600U** Introduction to Computer Security	**INFR 3710U** Signals and Random Processes	**BUSI 1600U** Management of the Enterprise	General Elective
3-2	**BUSI 3501U** E-Business Technologies	**INFR 1550U** Law & Ethics of IT	**INFR 2830U** Operating Systems	**INFR 3720U** Basics of Digital Transmission *Prereq INFR 3710U*	**INFR 2810U** Computer Architecture
4-1	**INFR 3600U** Cryptography, Malware & Network Security *Prereq INFR 2600U*	**INFR 4680U** IT Security Policies and Procedures *Prereq BUSI 3501U*	**INFR 3120U** Web Programming	**INFR 4599U** Special Topics in IT *Prereq Year 4 standing* Or Technical Elective	Technical Elective Or General Elective
	BUSI 4990U Pre-Capstone Workshop				
4-2	**BUSI 4995U** UOIT Edge Capstone Study Project *Prereq INFR 4990U, Year 4 standing*	**INFR 3610U** OS Security (Win and UNIX) *Prereq INFR 2830U*	**BUSI 2210U** Marketing for IT	**INFR 4660U** Web Services and eBusiness Security *Prereq INFR 2820U, INFR 3810U*	**INFR 4690U** IT Forensics *Prereq INFR 2421U, INFR 3600U, INFR 3610U*

Program content

N/A – No additional courses have been added.

RESOURCE REQUIREMENTS

No new resource requirements are required as the only change is to give two additional general elective transfer credits to students with an advanced diploma.

BUSINESS PLAN

N/A