Minor Program Adjustment

Faculty: Business and IT	**Date**: Nov 30, 2017
Program: Networking and IT Security Pathways Programs	
Undergraduate: ☒	**Graduate**: ☐

Minor Program Adjustments include: New required courses, Deletion of required courses, Other changes to degree requirements or program learning outcomes, New academic requirements or changes to existing requirements.

Motion: That CPRC approve changes to the Pathway Program into the Networking and Security curriculum program; which includes the Advanced Entry, IT Security Specialization Bridge, and Computer Science transfer to University (CSTU).

Proposal Brief

Summary of the proposed change

1. Add INFR1400U Statistics and Probability for I.T.as a core course
2. Remove INFR3710 Signals and Random Processes
3. Add core course: INFR3700U Machine Learning.

Description of the ways in which the proposed change will enhance the program and/or opportunities for students

1. **Why adding INFR-1400U? Why removing INFR3710?**
   INFR-1400U is a new course that covers statistic and probability, and this material is required for other the Machine Learning course, INFR3700U.

2. Reason for removing **the** INFR3710:
   Upon re-evaluation of the course content, the area decided that the content is no longer relevant to all graduate in Networking and Security. It was also the decision of the area that a course on machine learning is more beneficial for the students in the major.

3. **Adding Machine Learning**
   Machine Learning is a hot topic both in the industry and in research, and it will continue being an expected component in the education of IT professionals for the years to come. UOIT students are currently graduating without this important course which has become mandatory in many universities. Including it as part of the core curriculum will give our students the edge and competitive advantage to succeed in their careers.

Process of consultation with other units if the change(s) involves students, staff, and/or faculty from other programs or courses
No impact on other units.

Analysis of financial and enrolment implications
None

Proposed Implementation Date (state term, e.g. Fall 2017)
Fall 2018 (bridge students will begin their studies in Spring 2018)

Transition Plan (include a plan for all current students in the program, by year level)

Students already in the program can still take the courses on the original map, as these courses will still be offered as part of the program.

Calendar Copy and/or Program Maps (highlight revisions to existing curriculum)

Attachments

APPROVAL DATES

Curriculum Committee approval	November 30, 2017
Faculty Council approval	December 5, 2018
CPRC Approval	19 January 2018
Submission to Academic Council	27 February 2018

ADVANCED ENTRY Program Map Fall 2018 Start

Year TERM	Course	Course	Course	Course	Course
3 FALL	INFR 2670U Introduction to Cloud Services	INFR 3600U Cryptography and Network Security	BUSI 2000U Collaborative Leadership	BUSI 2550U Introduction to Project Management	BUSI 2120U Accounting for I.T.
3 WINTER	INFR 3810U Database Systems	INFR 1550U Law and Ethics of I.T.	INFR 3610U Operating System Security	INFR 2421U Advanced Networking II	INFR 1016U Introductory Calculus
4 FALL	INFR 4661U Security Analysis	Delete: INFR3710U Add: INFR 1400U Statistics & Probability for I.T.	INFR 2431U Advanced Networking III	INFR 4680U I.T. Security Policies and Procedures	Delete Open E Add: INFR 3700U Machine Learning
	BUSI 4990U Capstone I				
4 WINTER	INFR 4690U I.T. Forensics	INFR 3720U Basics of Digital Transmission	INFR 4621U Data Centre Design	BUSI 4995U Capstone II	Technical Elective

IT Security Specialization Pathway Program Map (for students bridging from a 3-year non-CISCO college diploma)   201805 start

year term	Course	Course	Course	Course	Course
BRIDGE	INFR 2820U Algorithms and Data Structures	INFR 1010U Discrete Mathematics	INFR 1016U Introductory Calculus		
3 FALL	INFR 2600U Introduction to Computer Security	Delete: INFR3710U Add: INFR 1400U Statistics & Probability for I.T.	INFR 3120U Web and Script Programming	BUSI 2550U Introduction to Project Management	INFR 2670U Introduction to Cloud Services
3 WINTER	INFR 2810U Computer Architecture	INFR 1550U Law and Ethics of I.T.	INFR 2830U Operating Systems	INFR 3720U Basics of Digital Transmission	BUSI 2000U Collaborative Leadership
4 FALL	INFR 3600U Cryptography and Network Security	INFR 4680U I.T. Security Policies and Procedures	Delete: Open E Add: INFR 3700U Machine Learning	INFR 4661U Security Analysis	BUSI 2120U Accounting for I.T.
	BUSI 4990U Capstone I				
4 WINTER	INFR 4690U I.T. Forensics	INFR 3610U Operating System Security	BUSI 4995U Capstone II	BUSI 1600U Management of the Enterprise	Technical Elective

IT Security Specialization Pathway Program Map (for students bridging from a 2-year non-CISCO college diploma)   201805 Start

Year-Sem.	Course	Course	Course	Course	Course
BRIDGE	INFR 2820U Algorithms and Data Structures	INFR 1010U Discrete Mathematics	INFR 1016U Introductory Calculus	INFR 2810U Computer Architecture	General Elective
3 FALL	BUSI 2550U Introduction to Project Management	BUSI 1600U Management of the Enterprise	Delete: INFR3710U Add: Add: INFR 1400U Statistics & Probability for I.T.	INFR 2600U Introduction to Computer Security	INFR 3120U Web and Script Programming
3 WINTER	INFR 3720U Basics of Digital Transmission	INFR 1550U Law and Ethics of I.T.	INFR 2830U Operating Systems	BUSI 2000U Collaborative Leadership	General Elective
4 FALL	INFR 3600U Cryptography and Network Security	INFR 4680U IT Security Policies and Procedures	INFR 2670U Introduction to Cloud Services	INFR 4661U Security Analysis	BUSI 2120U Accounting for I.T.
	BUSI 4990U Capstone I				
4 WINTER	BUSI 4995U Capstone II	INFR 3610U Operating System Security	Technical Elective	INFR 4690U I.T. Forensics	Delete: Open E Add: INFR 3700U Machine Learning

For students from CSTU college Programs

201805 Start

BRIDGE	INFR 1010U Discrete Math	INFR 1016U Intro Calculus	INFR 1100U Intro Programming	INFR 2140U Object Oriented Programming	BUSI 2000U Collaborative Leadership
3 FALL	Deleted: INFR3710 Add: INFR 1400U Statistics & Probability for I.T.	INFR 2411U Advanced Networking I	BUSI 2120U Accounting for I.T.	INFR 2670U Introduction to Cloud Services	INFR 2600U Introduction to Computer Security
	I.T. Skills Workshop				
3 WINTER	INFR 3720U Basics of Digital Transmission	INFR 2421U Advanced Networking II	INFR 1550U Law & Ethics of I.T.	INFR 2830U Operating Systems	INFR 2820U Algorithms & Data Structures
	I.T. Skills Workshop				
4 FALL	INFR 4661U Security Analysis	INFR 2431U Advanced Networking III	INFR 3600U Cryptography and Network Security	INFR 4680U I.T. Security Policies & Procedures	Delete: Tech El Add: INFR 3700U Machine Learning
	BUSI 4990U Capstone I				
4 WINTER	BUSI 4995U Capstone II	INFR 4621U Data Center Design	INFR 4690U I.T. Forensics	INFR 3610U Operating System Security	BUSI 1600U Management of the Enterprise