

Fanshawe College

FIRST: Fanshawe Innovation, Research, Scholarship, Teaching

Documentation (Approvals etc...)

Information Security Management

2017

ISM1 Curriculum Modification for 2017-18 (2)

Fanshawe College

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CURRICULUM MODIFICATION REQUEST FORM

COURSE OR PROGRAM CURRICULUM "RATIONALE FOR CHANGE"

Program Requiring Changes

Program Title: Information Security Management		
Program Number: ISM1	Date Submitted: 5/11/2017	
Dean responsible for program: David Belford	Chair: Jim Edwards	
Credential Provided: <input type="checkbox"/> Declaration of Academic Achievement <input type="checkbox"/> Local Certificate <input type="checkbox"/> Ontario College Certificate <input type="checkbox"/> Diploma <input type="checkbox"/> Advanced Diploma <input checked="" type="checkbox"/> Grad Certificate <input type="checkbox"/> Degree <input type="checkbox"/> Apprenticeship		
Program Intakes: <input checked="" type="checkbox"/> F <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> S Other:	Catalogue Year(s) Impacted: 2017/2018	
Residency Requirement: <input checked="" type="checkbox"/> Met or <input type="checkbox"/> Not Met	Date of Last Program Review: 11/17/2016	
<i>I have read the reasons for the change and...</i>		<i>Signature and date</i>
Dean of Faculty (responsible for program):	<input checked="" type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	<i>D. Belford May 25/17</i>
Dean of Faculty (impacted by change):	<input type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	<i>N/A June 25/17.</i>
Dean of Faculty (impacted by change):	<input type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	<i>N/A June 25/17.</i>
Senior Vice President Academic (required for major changes and late DAs):	<input checked="" type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	<i>[Signature] June 15/17.</i>
Director, Centre for Academic Excellence:	<input checked="" type="checkbox"/> Supports <input type="checkbox"/> Does Not Support	<i>Jacyn Geddes June 12/17</i>
Office of the Registrar:	<input type="checkbox"/> Supports <input type="checkbox"/> Does Not Support	

Please answer each of the questions below, if applicable. Missing or incomplete information may delay review of the proposed changes.

1.0 Describe proposed change(s). Complete Appendix A (if necessary) and amend SDAR (Refer to Appendix C).

Further to the proposals made in the degree audit carried out in November 2016 it is proposed that an alternative stream be added to the ISM program. Whereby Info 6002, Network Systems & Components can be substituted with Info 6072 Information Security Testing in the first semester and in the second semester Info 6008 I.T. Auditing can be substituted with Info 6073 Digital Forensics.

2.0 Reason/Rationale for Changes

2.1 The reason for the change is based on:

- A recent program review
- College Advisory Committee feedback
- Program Advisory Committee feedback
- Student feedback
- KPI results
- Accreditation or other regulatory requirements
- Shared curriculum
- Trends in the field/industry
- Other (please describe): Following a request from a local company (Digital Boundaries) to provide a programme that focuses on producing students with more in depth knowledge of information security testing.

2.2 Does the change support the College's Strategic Framework (mission, vision, values)?

- Yes
- No (If no, please explain)

2.3 What strategic goal(s) does the proposed change support?

- Goal 1 - Enrolment growth
- Goal 2 - Flexible delivery options
- Goal 3 - Premier student experience
- Goal 4 - Sustainable College life

3.0 Students

3.1 Will the change affect the cost of the program for students?

- Yes
- No

3.2 If yes, there will be an additional cost for:

- Materials (Include details):
- Equipment (Include details):
- Other (Please describe):

4.0 Program Learning Outcomes

4.1 Will the proposed change meet the Program Vocational Learning Outcomes? (Complete Appendix B)

- Yes
- No

4.2 Are there any implications related to progression because of pre-requisite courses (and/or co-requisite courses)?

- No
- Yes (If yes, please explain)

5.0 Relationships with Other Programs

5.1 Are any of the courses impacted by the change provided by another School (e.g., SLLS, LKSB) and/or delivered at another campus?

- No
- Yes

5.2 What Schools/Campuses will be impacted by the proposed change?

- School of Information Technology
- Lawrence Kinlin School of Business
- School of Tourism and Hospitality
- School of Health Sciences
- School of Human Services
- School of Nursing
- School of Public Safety
- School of Contemporary Media
- School of Design
- School of Language and Liberal Studies
- School of Aviation Technology
- School of Applied Sciences and Technology

- Donald J. Smith School of Building Technology
- School of Transportation Technology
- Continuing Education
- Simcoe/Norfolk Regional Campus
- Woodstock/Oxford Regional Campus
- St Thomas/Elgin Regional Campus

5.3 Will the change affect pathway agreements (e.g., bridging, articulations, laddering, advanced standing) with other Fanshawe program(s) and/or other institution(s)? (Refer to the pathway agreements listed here: <http://transferagreements.fanshawec.ca/>)

- No
- Yes (If yes, indicate when you will notify the other Fanshawe program(s) and/or other institution(s) of the change)

5.4 If this program is a Co-Operative Education program, will the proposed change impact Co-op?

- No
- Yes (If yes, consult with the Co-op office prior to submission)

6.0 Resource Implications of Proposed Changes

6.1 Will the proposed change have staffing implications?

- No
- Yes (If yes, please explain) Addition staff 45 hours per semester.

6.2 Will the proposed change impact any of the Enabling areas?

- No
- Yes (If yes, please explain)

6.3 Will the proposed change affect space and/or technology requirements?

- No
- Yes (If yes, please explain) More lab space will be required.

7.0 General College Requirements

7.1 Are changes consistent with Colleges policies/practices?

- Yes
- No (If no, please explain)

7.2 Indicate:

- i) Total program hours before proposed change: 659
- ii) Total program hours after proposed change: 659
- iii) Level(s) in which the proposed change(s) occurs: 1 & 2

7.2.1 Are the total program hours consistent with the requirements as listed below?

- Yes
 No (If no, please explain)

Local Certificate - 300 hours	Ontario College Certificate - 600 hours
Diploma - 1200 to 1400 hours	Advanced Diploma - 1800 to 2000 hours
Graduate Certificate - 600 hours	

7.3 Will the program meet the General Education requirements (Policy 2-B-02) as listed below?

- No
 Yes

Local Certificate, Ontario College Certificate and Graduate Certificate - none required)	Diploma - 3 required (minimum of 1 must be an elective)	Advanced Diploma - 4 required (minimum of 2 must be electives)
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7.4 Will the program have 25% distinct curriculum to meet the Residency Requirement of 25% credit units? Consider all pathway agreements (e.g., bridging, internal articulations, laddering, advanced standing) with other Fanshawe programs and/or other institutions.

- No
 Yes

Note: In accordance with POLICY NUMBER: 2-B-17 Graduation from Approved College Programs

...to be eligible for any College Credential a student must be enrolled and complete at least 25% of that program's credit units at Fanshawe College, unless stipulated differently by other approving bodies such as the Postsecondary Education Quality Assessment Board (PEQAB).

APPENDIX A: PROPOSED DEGREE AUDIT CHANGES - ISM

Course Code	Existing DA Courses	Total Hours	Total Credits		Course Code	Proposed DA Courses	Total Hours	Total Credits
Level 1								
INFO-6001	Information Security	60	4		INFO-6001	Information Security	60	4
INFO-6002	Network systems and components	45	3	Alternative stream - instead of Info 6002	INFO-6002	Network systems and components	45	3
					INFO-6072	Information Security Testing		
INFO-6003	O/S and applications security	60	4		INFO-6003	O/S and applications security	60	4
INFO-6042	Web Security	45	3		INFO-6042	Web Security	45	3
INFO-6027	Security planning	45	3		INFO-6027	Security planning	45	3
INFO-6047	Routing & Switching	75	5		INFO-6047	Routing & Switching	75	5
ACAD 6002	Graduate Success Strategies	14	1		ACAD 6002	Graduate Success Strategies	14	1
TOTAL		344	23		TOTAL		344	23
Level 2								
INFO-6048	CCNA Security	75	5		INFO-6032	CCNA Security	75	5
INFO-6008	IT Auditing	45	3	Alternative stream - instead of Info 6008	INFO-6008	IT Auditing	45	3
					INFO-6073	Digital Forensics		
INFO-6009	Network Monitoring & Penetration Testing	45	3		INFO-6009	Network Monitoring & Penetration Testing	45	3
INFO-6010	CISSP Prep	45	3		INFO-6010	CISSP Prep	45	3
INFO-6065	Ethical Hacking & Exploits	60	4		INFO-6012	Ethical Hacking & Exploits	60	4
INFO-6011	Applied Project Management	45	3		INFO-6011	Applied Project Management	45	3
TOTAL		315	21		TOTAL		315	21

very different level of learning

PROGRAM TOTAL 659 44

PROGRAM TOTAL 659 44

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
PROGRAM MAPPING (INFORMATION SECURITY MANAGEMENT - ISM1)	INFO 6001 Information Security	INFO 6002 Network Systems & Components	INFO 6003 OS & Applications Security	INFO 6004 Web Security	INFO 6007 Security Planning	INFO 6007 Routing & Switching	ACAD 6002 Graduate Success Strategies	INFO 6008 I.T. Auditing	INFO 6007 Digital Forensics	INFO 6009 Network Monitoring & Penetration Testing	INFO 6010 CISSP Prep	INFO 6011 Applied Project Management	INFO 6005 Ethical Hacking & Exploit Detection	# OF COURSES EVALUATING THE OUTCOME						
	3	2	3	2	2	2	2	2	3	3	3	3	3							
1	PROGRAM MAPPING (INFORMATION SECURITY MANAGEMENT - ISM1)	INFO 6001 Information Security	INFO 6002 Network Systems & Components	INFO 6003 OS & Applications Security	INFO 6004 Web Security	INFO 6007 Security Planning	INFO 6007 Routing & Switching	ACAD 6002 Graduate Success Strategies	INFO 6008 I.T. Auditing	INFO 6007 Digital Forensics	INFO 6009 Network Monitoring & Penetration Testing	INFO 6010 CISSP Prep	INFO 6011 Applied Project Management	INFO 6005 Ethical Hacking & Exploit Detection						
2	PROGRAM VOCAATIONAL LEARNING OUTCOMES																			
3	Results of Program Review - PVLO mapping - updated May 2017 ok																			
4	1 - Introductory																			
5	2 - Intermediate																			
6	3 - Advanced																			
7																				
8	The graduate has reliably demonstrated the ability to: (Source: MTCU Code:)																			
9	1. Apply knowledge of computer operating systems, networking, and various application software to the simulation of business processes	3	2	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
10	2. Develop best practices to protect business resources through the application of knowledge of vulnerabilities and exploits	3	1	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
11	3. Develop security strategies for the deployment of security procedures and protective devices	3	1	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
12	4. Integrate information technology strategies that support business functions by employing knowledge of best practices of business processes and systems	3	2	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
13	5. Develop security plans and strategies to include acceptable use of business information and systems by internal employees, contractors, consultants, business partners and customers	3	2	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
14	6. Develop security plans and strategies to ensure the integrity of information in compliance with best practices, relevant policies, standards, and regulations	3	2	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
15	7. Apply project management principles in the deployment of security policies and strategies	3	2	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
16	8. Perform security audits to ensure compliance with security plans, policies, standards, regulations and best practices	3	2	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
17	9. Develop and deliver a corporate training program to communicate both orally and in writing the security requirements for compliance with security policies	3	2	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
18	10. Prepare security documentation for approval by senior management and present results of security audits	3	2	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
19	TOTAL # OF OUTCOMES EVALUATED BY EACH COURSE	5	6	4	5	3	4	1	5	9	4	1	0	0	4	3	4	4	0	0
20	V = Vocational Courses E = Essential Employability Skills Courses																			
21	G = General Education (mandatory) G = General Education (elective)																			
22																				
23	NB - Only indicate the outcomes that are Taught & Evaluated																			
24	(TE or TRE) in a course																			
25	PROGRAM COORDINATOR: Clive Wright																			
26																				
27	ACADEMIC CHAIR: Jim Edwards																			
28																				
29	Date Completed: updated May 2017																			
30																				

Analysis of Mapping Results: Items in red are the alternative stream

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	COMMS - Vocational Learning Outcomes by Program, Level and Course												
2													
3	Program Name:	Information Security Management											
4	Program Code:	ISM1											
5													
6	DATE:	10th May 2017											# of Outcomes / Course
7		Out of Cycle DA											
8													
9	Level 1	VLOs (see below)											
10	Course Number	Course Name	1	2	3	4	5	6	7	8	9	10	
11	INFO-6001	Information Security	3	3	3	3		3					5
12	INFO-6002	Network Systems & Components	2			2	2	2					6
13	INFO-6072	Informatin Security Testing	3	3	3	3							4
14	INFO-6042	Web Security	2	2						2			3
15	INFO-6027	Security Planning	2	2	2	2	3	3			2	2	9
16	INFO-6003	O/S & Applications Security	3	3	2	2				2			5
17	INFO-6047	Routing & Switching	2	2	2	2							4
18	ACAD 6002	Graduate Success Strategies											3
19													
20	Level 2												
21	Course Number	Course Name	1	2	3	4	5	6	7	8	9	10	
22	INFO-6008	I.T. Auditing	2			3	3	3	2	2		2	7
23	INFO-6073	Digital Forensics	3	3	3								3
24	INFO-6009	Ntwk Monitor & Penetration Testing	3	3	3	3			2	2	3	3	8
25	INFO-6010	CISSP Prep	3	3	3	3							4
26	INFO-6011	Applied Project Management			2	2	2	2	3			3	6
27	INFO-6065	Hacking & Exploits	3	3						2		2	4
28	INFO-6048	CCNA Security	3	2	3	2		3					5
29													
30													
31	Vocational Learning Outcomes												
32	1	apply knowledge of computer operating systems, networking, and various application software to the simulation of business processes											
33	2	develop best practices to protect business resources through the application of knowledge of vulnerabilities and exploits											
34	3	develop security strategies for the deployment of security procedures and protective devices											
35	4	integrate information technology strategies that support business functions by employing knowledge of best practices of business processes and systems											
36	5	develop security plans and strategies to include acceptable use of business information and systems by internal employees, contractors, consultants, business partners and customers											
37	6	develop security plans and strategies to ensure the integrity of information in compliance with best practices, relevant policies, standards, and regulations											
38	7	apply project management principles in the deployment of security policies and strategies											
39	8	perform security audits to ensure compliance with security plans, policies, standards, regulations and best practices											
40	9	develop and deliver a corporate training program to communicate both orally and in writing the security requirements for compliance with security policies											
41	10	prepare security documentation for approval by senior management and present results of security audits											
42													
43	Legend												
44	Foundatory	Rank 1 - Introductory											
45	Building	Rank 2 - Building (Intermediate)											
46	Culminating	Rank 3 - Culminating (Advanced)											

	A	B	C	D	E	F	G	H	I	J	K	L	M	N		
1	COMMS - Essential Employability Skills by Program, Level and Course															
2																
3	Program Name:	Information Security Management														
4	Program Code:	ISM1														
5																
6	DATE:	10th May 2017														
7		Out of Cycle DA														
8																
9	Level 1	EESs (see below)													# of Outcomes / Course	
10	Course Number	Course Name	1	2	3	4	5	6	7	8	9	10	11			
11	INFO-6001	Information Security	4						4			4	4	4		
12	INFO-6002	Nework Systems & Components	4	4	4	4	4	4	4	4	4	4	4	11		
13	INFO- 6072	Information Security Testing	4	4	4	6	6	6	6			4	4	9		
14	INFO-6003	O/S & Applications Security		4		4	4		4			4	4	6		
15	INFO-6042	Web Security		4		4	4		4			4	4	6		
16	INFO-6027	Security Planning	4	4	4	4	4	4	4		7	5	4	10		
17	INFO-6047	Routing & Switching	4	4	6	4	4	4			4	4		8		
18	ACAD-6002	Graduate Success Strategies	5	7		6	6	5	7	5	5	5	5	10		
19																
20	Level 2															
21	Course Number	Course Name	1	2	3	4	5	6	7	8	9	10	11			
22	INFO-6011	Applied Project Management	5	5	4	4	4	4	4	4	4	4	4	11		
23	INFO-6008	I.T. Auditing	4	4		4	4	4	4	4	4	4	4	10		
24	INFO-6073	Digital Forensics	4	7	4	7	7	7	7		4		4	8		
25	INFO-6009	Ntwk Monitor & Penetration Testing	5	4		4	4	4	4	4	4	5	4	10		
26	INFO-6010	CISSP Prep	4	5	4	5	5	5			4	4	4	9		
27	INFO-6065	Hacking & Exploits		4		4	4		4			4	4	6		
28	INFO-6048	CCNA Security	4	4		4	4		4		4	4	4	8		
29																
30																
31	Essential Employability Skills															
32	1	Communicate clearly, concisely and correctly in the written, spoken and visual form that fulfills the purpose and meets the needs of the audience.														
33	2	Respond to written, spoken or visual messages in a manner that ensures effective communication.														
34	3	Execute mathematical operations accurately.														
35	4	Apply a systematic approach to solve problems.														
36	5	Use a variety of thinking skills to anticipate and solve problems.														
37	6	Locate, select, organize and document information using appropriate technology and information systems.														
38	7	Analyze, evaluate and apply relevant information from a variety of sources.														
39	8	Show respect for diverse opinions, values, belief systems and contributions of others.														
40	9	Interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.														
41	10	Manage the use of time and other resources to complete projects.														
42	11	Take responsibility for one's own actions, decisions and consequences.														
43																
44																
45	4 = R	5 = RE	6 = TE	7 = TRE												
46	T = Taught	R = Reinforced	E = Evaluated													

Degree Audit Report

Catalog: 2017/2018

Program: ISM1

Name: Information Security Management

Department: ITY - Information Technology

Academic Level: PS

CCD: 7 - 2AcadSem/600-700 hrs

Credential: Ontario College Graduate Cert

Grade Scheme: LG2

Major: ISM1 - Information Security Mgmt

Div: ITY - Information Technology Division

Co-Op Indicator: N/A

Academic Program Requirement

Total Credits: 44.00

Residency Reqmt: 11.00

GPA Requirement: 2.000

Residency Reqmt GPA: 2.000

Minimum Grade: D

Academic Requirement: ISM1.17 Information Security Management

Major: ISM1

Grade Scheme: LG2

Minimum GPA: 2.000

Minimum Grade:

Subrequirement: Level 1

Take all of the following Mandatory Courses:

OR INFO-6072

		Total Hours	Total Credits	GE
INFO-6001	Information Security	60.00	4.00	
INFO-6002	Network Systems & Components	45.00	3.00	
INFO-6003	O/S & Applications Security	60.00	4.00	
INFO-6042	Web Security	45.00	3.00	
INFO-6027	Security Planning	45.00	3.00	
INFO-6047	Routing & Switching	75.00	5.00	
ACAD-6002	Graduate Success Strategies	14.00	1.00	

Subrequirement: Level 2

Take all of the following Mandatory Courses:

OR INFO-6073

		Total Hours	Total Credits	GE
INFO-6048	CCNA Security	75.00	5.00	
INFO-6008	I.T. Auditing	45.00	3.00	
INFO-6009	Network Monitoring & Penetration Testing	45.00	3.00	
INFO-6010	CISSP Prep	45.00	3.00	
INFO-6065	Ethical Hacking & Exploits	60.00	4.00	
INFO-6011	Applied Project Management	45.00	3.00	

Subrequirement: Program Residency

Students Must Complete a Minimum of 11 credits in this program at Fanshawe College to meet the Program Residency requirement and graduate from this program

[Signature]
Approved By Chair/Manager:

[Signature]
Approved by Dean:

General Education Approved By(as appropriate):

ITY *May 18/17*
Department and Date:

May 25/17
Date:

Date:

TG
June 12/17



From: Edwards, Jim
Sent: April-19-17 7:24 PM
To: Gedies, Tracy <TGedies@fanshawec.ca>
Cc: Belford, David <DBelford@fanshawec.ca>
Subject: new program question

Tracy

We have a short window opportunity to work with Digital Boundaries (a local info security firm) on some collaborative programming and research activities. They are expecting to grow significantly over the next while, and would like us to develop some college credentialled graduate training in the field of Enterprise Security Testing. They are willing to provide some financial and in-kind support.

My question to you is: If we base this program on the foundations of either NSA or ISM (which we will need to), and augment it with a few additional courses, can we present this as a late degree audit stream (e.g. ISM – security testing stream)?

Even though they are in London, they have also talked to Sheridan on this proposal, and Sheridan is willing to work with them fully. If we can work it, they would prefer to stay local.

Thanks

Jim

James W. Edwards, MBA, MScIS
Chair, School of Information Technology

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