

Fanshawe College

FIRST: Fanshawe Innovation, Research, Scholarship, Teaching

Documentation (Approvals etc...)

Network and Security Architecture

2017

NSA1 Curriculum Modification for 2018-19

Fanshawe College

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CURRICULUM MODIFICATION REQUEST FORM

RECEIVED

COURSE OR PROGRAM CURRICULUM "RATIONALE FOR CHANGE" DEC 18 2017

Program Requiring Changes

Office of the Registrar

Program Title: Network and Security Architecture		
Program Number: NSA1	Date Submitted: 11/28/2017	
Dean responsible for program: David Belford	Chair: James 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 type="checkbox"/> S Other:	Catalogue Year(s) Impacted: 20189	
Residency Requirement: <input type="checkbox"/> Met or <input type="checkbox"/> Not Met	Date of Last Program Review: Click here to enter a date.	
<i>I have read the reasons for the change and...</i>	<i>Signature and date</i>	
Dean of Faculty (responsible for program): David Belford	<input checked="" type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	<i>David Belford Dec 15/17</i>
Dean of Faculty (impacted by change):	<input type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	
Dean of Faculty (impacted by change):	<input type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	
Senior Vice President Academic (required for major changes and late DAs):	<input type="checkbox"/> Approve <input type="checkbox"/> Do Not Approve	
Director, Centre for Academic Excellence:	<input checked="" type="checkbox"/> Supports <input type="checkbox"/> Does Not Support	<i>Judy Geddes Jan 2/18</i>
Office of the Registrar:	<input checked="" type="checkbox"/> Supports <input type="checkbox"/> Does Not Support	<i>Jim Call</i>

Total hrs change from 689 → 674 (-15)

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).

One of the courses in the Network Security and Architecture program, Info-6041 Virtualization Infrastructure, is currently allocated 5 hours per week. Over the past few semesters of delivery, we have found that the Microsoft material could be effectively covered in 4 hours per week.

Therefore, this change is to reduce INFO-6041 from a five hour to a four hour course. This precipitates a new course number, INFO-6075.

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): experienced delivery of course content

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 and mark the changes in the mapping [e.g. red font])

- 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
- Norton Wolf 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
- St Thomas/Elgin Regional Campus

- Woodstock/Oxford Regional Campus
- Huron/Bruce Regional Sites

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) and the Pathways Coordinator in the Centre for Academic Excellence 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)

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) 1 less hour of lab time used

7.0 General College Requirements

7.1 Are changes consistent with Colleges policies?

- Yes
- No (If no, please explain)

7.2 Indicate:

- i) Total program hours before proposed change: 46
- ii) Total program hours after proposed change: 45
- iii) Level(s) in which the proposed change(s) occurs: 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 CURRICULUM MODIFICATION - NSA1

Course Code	Existing DA Courses	Total Hours	Total Credits	Describe proposed changes	Course Code	Proposed DA Courses	Total Hours	Total Credits
Level 1								
INFO-6034	Securing Routers & Switches	60	4		SRTY-6002	Securing Networks	60	4
INFO-6035	Firewalls	60	4		SRTY-6003	Securing the Edge 1	60	4
INFO-6036	Server Infrastructure	75	5		INFO-6036	Server Infrastructure	75	5
INFO-6037	Network Protocols	45	3		INFO-6070	Network Management	45	3
INFO-6042	Web Security	45	3		INFO-6042	Web Security	45	3
INFO-6043	IT Service Management	45	3		INFO-6043	IT Service Management	45	3
					ACAD 6002	Graduate Success Strategies	14	1
TOTAL		330	22		TOTAL		344	23
Level 2								
INFO-6010	CISSP Prep	45	3		INFO-6010	CISSP Prep	45	3
INFO-6033	Enterprise Network Design	45	3		INFO-6033	Enterprise Network Design	45	3
INFO-6038	Virtual Private Networks	60	4		INFO-6038	Virtual Private Networks	60	4
INFO-6039	Intrusion Prevention Systems	60	4		SRTY-6004	Securing the Edge 2	60	4
INFO-6040	Wireless Networks	45	3		INFO-6040	Wireless Networks	45	3
INFO-6041	Virtualization Infrastructure	75	5	New course	INFO-6075	Virtualization Infrastructure	60	4
TOTAL		330	22		TOTAL		315	21
PROGRAM TOTAL		660	44		PROGRAM TOTAL		659	44

689

674 -1

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14

-15

Degree Audit Report

Catalog: 2018/2019

Program: NSA1 **Name:** Network and Security Architecture
Department: ITY - Information Technology
Academic Level: PS
CCD: 7 - 2AcadSem/600-700 hrs
Credential: Ontario College Graduate Cert

Grade Scheme: LG2
Major: NSA1 - Network & Security Arch. **Div:** ITY - Information Technology Division
Co-Op Indicator: N/A

Academic Program Requirement

Total Credits: 46.00 **Residency Reqmt:** 12.00
GPA Requirement: 2.00 **Residency Reqmt GPA:** 2.00
Minimum Grade: D

Academic Requirement: NSA1.18 Network and Security Architecture

Major: NSA1
Grade Scheme: LG2
Minimum GPA: 2.00
Minimum Grade:

Subrequirement: Level 1

Take all of the following Mandatory Courses:

		Total Hours	Total Credits	GE
SRTY-6002	Securing Networks	60.00	4.00	
SRTY-6003	Securing the Edge 1	60.00	4.00	
INFO-6036	Server Infrastructure	75.00	5.00	
INFO-6070	Network Management	45.00	3.00	
INFO-6042	Web Security	45.00	3.00	
INFO-6043	IT Service Management	45.00	3.00	
ACAD-6002	Graduate Success Strategies	14.00	1.00	

Subrequirement: Level 2

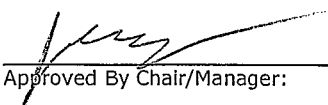
Take all of the following Mandatory Courses:

		Total Hours	Total Credits	GE
INFO-6038	Virtual Private Networks	60.00	4.00	
SRTY-6004	Securing the Edge 2	60.00	4.00	
INFO-6040	Wireless Networks	45.00	3.00	
INFO-6041	Virtualization Infrastructure	75.00	5.00	60.00 4.00
INFO-6010	CISSP Prep	45.00	3.00	
INFO-6033	Enterprise Network Design	60.00	4.00	

Subrequirement: Program Residency

Students Must Complete a Minimum of 12 credits in this program at Fanshawe College to meet the Program Residency requirement and graduate from this program

TJ
Jan 2/18


 Approved By Chair/Manager:

174 Dec 14/17
 Department and Date:

Degree Audit Report

Approved by Dean: W. Belford

Date: Dec 15/17

General Education Approved By(as appropriate):

Date:

APPENDIX A – Form 3 Program Outcomes – Curriculum Map

PROGRAM MAPPING (Network and Security Architecture)								LEVEL TWO							
PROGRAM VOCATIONAL LEARNING															
1 - Introductory															
2 - Intermediate															
3 - Advanced															
The graduate has reliably demonstrated the ability to: (Source: MTCU Code)		SRTY 6002 Securing Networks	SRTY 6003 Securing the Edge 1	INFO6036 Server Infrastructure	INFO 6070 Network Management	INFO 6043 IT Service Management	INFO 6042 Web Security	ACAD 6002 Graduate Success Strategies	INFO 6038 Virtual Private Networks	SRTY 6004 Securing the Edge 2	INFO 6040 Wireless Networks	INFO 6075 Virtualization	INFO6010 CISSP Prep	INFO 6033 - Enterprise Network Design	# OF COURSES EVALUATING THE OUTCOME
1 Apply knowledge of networking and routing protocols to design an enterprise network		3	3	3	3	3			3	3	3		3	3	10
2 Perform network monitoring, analysis and troubleshooting to determine the efficient and secure operation of the network.		3	3		3		3			3				3	6
3 Develop a security architecture plan to incorporate both perimeter and endpoint security controls and devices to provide layers of security for a defense in depth strategy.		3	3		3	3			3	3	3		3	3	9
4 Design a Windows operating system infrastructure, accommodating a multi-site enterprise topology. Implement and deploy security effectively through organizational unit and security group design.				3		3						3		3	3
5 Design a centrally managed wireless network topology that can accommodate remote sites, incorporating the current security standards.					3						3			3	2
6 Design and implement a virtualization and cloud computing focused infrastructure. Specifically addressing the security concerns associated with incorporating virtualization into an organizations infrastructure.				3					3			3		3	3
7 Deploy servers to host web applications, focusing on securing the server and web applications from identified security risks.				3	3		3								3
8 Identify and plan IT services that support business goals and objectives. Explain specific activities directly related to the delivery and support of the services.							3					3	3	3	4
TOTAL # OF OUTCOMES EVALUATED BY EACH COURSE		3	3	4	5	4	2		3	3	3	3	3	7	
GM = General Education (mandatory) G = General Education (elective)															

NB - Only indicate the outcomes that are Taught & Evaluated (TE or TRE) in a course

PROGRAM COORDINATOR: Clive Wright	Additional Comments:
ACADEMIC CHAIR: Jim Edwards	
Date Completed: November 2016	

APPENDIX A – Form 3 Program Outcomes – Curriculum Map

PROGRAM MAPPING (Name of Program)	LEVEL THREE				LEVEL FOUR				# OF COURSES EVALUATING THE OUTCOME
PROGRAM VOCATIONAL LEARNING OUTCOMES	XXXX-1001 Course Name								
1 - Introductory									0
2 - Intermediate									0
3 - Advanced									0
The graduate has reliably demonstrated the ability to: (Source: MTCU Code)									0
1									0
2									0
3									0
4									0
5									0
6									0
7									0
8									0
9									0
10									0
11									0
TOTAL # OF OUTCOMES EVALUATED BY EACH COURSE	0	0	0	0	0	0	0	0	
V = Vocational Courses E = Essential Employability Skills Courses									
GM = General Education (mandatory) G = General Education (elective)									

NB - Only indicate the outcomes that are Taught & Evaluated (TE or TRE) in a course

PROGRAM COORDINATOR:

ACADEMIC CHAIR:

Date Completed:

Additional Comments:

APPENDIX A – Form 3 Program Outcomes – Curriculum Map

PROGRAM MAPPING (Name of Program)	LEVEL FIVE				LEVEL SIX				# OF COURSES EVALUATING THE OUTCOME	TOTAL FOR PROGRAM
PROGRAM VOCATIONAL LEARNING OUTCOMES	XXXX-1001 Course Name									
1 - Introductory										
2 - Intermediate										
3 - Advanced										
The graduate has reliably demonstrated the ability to: (Source: MTCU Code)										
1									0	10
2									0	6
3									0	9
4									0	3
5									0	2
6									0	3
7								0	3	
8								0	4	
9								0	#REF!	
10								0	#REF!	
11								0	#REF!	
TOTAL # OF OUTCOMES EVALUATED BY EACH COURSE	0	0	0	0	0	0	0	0		
V = Vocational Courses E = Essential Employability Skills Courses										
GM = General Education (mandatory) G = General Education (elective)										

NB - Only indicate the outcomes that are Taught & Evaluated (TE or TRE) in a course

PROGRAM COORDINATOR:

ACADEMIC CHAIR:

Date Completed:

Additional Comments:

APPENDIX A – Form 3 Program Outcomes – Curriculum Map

PROGRAM MAPPING (Name of Program)	LEVEL ONE				LEVEL TWO				# OF COURSES SUPPORTING THE
PROGRAM ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES	XXXX-1001								
4 = R 5 = RE 6 = TE 7 = TRE									
T = Taught R = Reinforced E = Evaluated									
The graduate has reliably demonstrated the ability to: (Source:									
1. communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.									0
2. respond to written, spoken, or visual messages in a manner that ensures effective communication.									0
3. execute mathematical operations accurately.									0
4. apply a systematic approach to solve problems.									0
5. use a variety of thinking skills to anticipate and solve problems.									0
6. locate, select, organize, and document information using appropriate technology and information systems.									0
7. analyze, evaluate, and apply relevant information from a variety of sources.									0
8. show respect for the diverse opinions, values, belief systems, and contributions of others.									0
9. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.									0
10. manage the use of time and other resources to complete projects.									0
11. take responsibility for one's own actions, decisions, and consequences.									0
TOTAL # OF OUTCOMES SUPPORTED BY EACH COURSE	0	0	0	0	0	0	0	0	

PROGRAM COORDINATOR:
 ACADEMIC CHAIR:
 Date Completed:

Additional Comments:

APPENDIX A – Form 3 Program Outcomes – Curriculum Map

PROGRAM MAPPING (Name of Program)	LEVEL THREE				LEVEL FOUR				# OF COURSES SUPPORTING THE OUTCOME
PROGRAM ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES	XXXX1001 Course Name								
4 = R 5 = RE 6 = TE 7 = TRE									
T = Taught R = Reinforced E = Evaluated									
The graduate has reliably demonstrated the ability to: (Source: MTCU Code)									
1. communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.									0
2. respond to written, spoken, or visual messages in a manner that ensures effective communication.									0
3. execute mathematical operations accurately.									0
4. apply a systematic approach to solve problems.									0
5. use a variety of thinking skills to anticipate and solve problems.									0
6. locate, select, organize, and document information using appropriate technology and information systems.									0
7. analyze, evaluate, and apply relevant information from a variety of sources.									0
8. show respect for the diverse opinions, values, belief systems, and contributions of others.									0
9. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.									0
10. manage the use of time and other resources to complete projects.									0
11. take responsibility for one's own actions, decisions, and consequences.									0
TOTAL # OF OUTCOMES SUPPORTED BY EACH COURSE	0	0	0	0	0	0	0	0	

PROGRAM COORDINATOR:

ACADEMIC CHAIR:

Date Completed:

Additional Comments:

APPENDIX A – Form 3 Program Outcomes – Curriculum Map

PROGRAM MAPPING (Name of Program)	LEVEL FIVE				LEVEL SIX				# OF COURSES SUPPORTING THE OUTCOME	TOTAL FOR PROGRAM
PROGRAM ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES	XXXX1001 Course Name									
4 = R 5 = RE 6 = TE 7 = TRE										
T = Taught R = Reinforced E = Evaluated										
The graduate has reliably demonstrated the ability to: (Source: MTCU Code)										
1. communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.								0	0	
2. respond to written, spoken, or visual messages in a manner that ensures effective communication.								0	0	
3. execute mathematical operations accurately.								0	0	
4. apply a systematic approach to solve problems.								0	0	
5. use a variety of thinking skills to anticipate and solve problems.								0	0	
6. locate, select, organize, and document information using appropriate technology and information systems.								0	0	
7. analyze, evaluate, and apply relevant information from a variety of sources.								0	0	
8. show respect for the diverse opinions, values, belief systems, and contributions of others.								0	0	
9. interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.								0	0	
10. manage the use of time and other resources to complete projects.								0	0	
11. take responsibility for one's own actions, decisions, and consequences.								0	0	
TOTAL # OF OUTCOMES SUPPORTED BY EACH COURSE	0	0	0	0	0	0	0	0	0	

PROGRAM COORDINATOR:

ACADEMIC CHAIR:

Date Completed:

Additional Comments: