

Due to COVID-19, this course may be offered via remote delivery in 2021-22 (unless the course is already being delivered fully online). Your course may have changes that are not reflected in the Course Outline. Please refer to this Course Section Information document for updated information about your course. If you have questions please contact your professor.

1. Professors

- a. Carolina Ayala ayalac@algonquincollege.com
- b. Andrey Sokolov sokoloa@algonquincollege.com (1st half of course)
- c. Michael Anderson Michael.Anderson@algonquincollege.com (1st half of course)
- d. Allan Elliot elliota@algonquincollege.com (1st half of course)
- e. Aleksandra Vidojevic vidojea@algonquincollege.com (2nd half of course)

2. Learning Resources

Required Resources

- a. Online curriculum from <http://netacad.com>
- b. Packet Tracer ver 8 (available from NetAcad)
- c. Printed Version of the NetAcad Online Curriculum (Optional but highly recommended)
[Enterprise Networking, Security, and Automation Companion Guide \(CCNAV7\)](#) (July 2020)
Print: 9780136634324 / eBook: 9780136634300

As Algonquin College continues to respond to public health guidelines, many courses will be offered through remote delivery. As such, students will be required to have access to a computer and to the internet. There may also be additional technology-related resources required to participate in a course that are not included in the course materials fee, such as headphones, webcams, specialized software, etc. Details will be posted as/when this becomes necessary.

3. Evaluation

3.1. Grading

- a. Lab Activities, in-class work, written assignments, quizzes 25%
- b. Midterm Exam (Brightspace) 20%
- c. Practical Assessment(s) and/or Capstone Assignment 30%
- d. Final Exam 25%

3.2. Lab Evaluation Details:

- a. This is an in-person, synchronous course.. There will be weekly activities with specified due dates.

4. Course Learning Requirements

1. Implement Dynamic Routing Protocols to Optimize Design
2. Implement Access Control Lists (ACLs) to Filter Traffic
3. Implement Network Address Translation (NAT) to scale IPv4 Addressing Schemes
4. Explain, Configure, and Troubleshoot IPv6 Addressing
5. Monitor and Troubleshoot Networks Using Network Management Protocols and Tools.

5. Tentative Schedule *(subject to change with notification)*

Date	Weekly Theme and Learning Outcomes	Learning Activities	Resources	CLRs
Week 1	Course Intro & Review	Review Quiz Packet tracer review		1
Week 2	Single Area OSPFv2 Concepts/Configuration	Lab – Basic OSPF Configuration	ENSA Module 1	1
Week 3	Single OSPFv2 Concepts	Lab - OSPFv2 optimization	ENSA Module 2	1
Week 4	OSPFv2	Lab – OSPFv2 Cloud Routers OSPF Quiz	ENSA Module 2	1
Week 5	OSPFv3	Lab - OSPVv3 for IPv6	Class Notes	4
Week 6	Network Management Network Design	Lab - Configure and Observe Network Monitoring Tools	ENSA Module 10	5
Week 7	Midterm	Mini SBA		1,4,5
Week 8	Break Week			
Week 9	Network Security Concepts & ACL Concepts	Lab - Data filtering	ENSA Module 3	2
Week 10	ACL Concepts	Lab - Standard ACL Configuration	ENSA Module 4	2
Week 11	NAT for IPv4	Lab - Configure NAT for IPv4 (simple)	ENSA Module 6	3
Week 12	NAT for IPv4 continued	Lab - Configure NAT for IPv4 (more advanced including port forwarding)	ENSA Module 6	3
Week 13	WAN Concepts	Lab - Configure WAN Connectivity including tunnelling	ENSA Module 8	5
Week 14	Review and SBA2	SBA2		1-5
Week 15	Final Assessments	Final Exam		1-5