

# INFORMATION SYSTEMS SECURITY

**Program:** INSS

**Credential:** Ontario College Graduate Certificate

**Delivery:** Full-time

**Work Integrated Learning:** 1 Internship

**Length:** 3 Semesters

**Duration:** 1 Year

**Effective:** Fall 2018

**Location:** Barrie

## Description

This program prepares students for careers involving the development, evaluation, and support of IT security solutions. Building on previous educational experience, students learn to create cost effective and secure computing environments. Graduates are able to categorize, design, implement, and integrate technical and managerial safeguards to ensure the security of networked computer systems. An emphasis will be placed on interpersonal, organizational, technical, communication, and problem-solving skills applied to enhance the effective implementation of security in a business environment.

## Career Opportunities

The need for organizations to build and maintain secure network and information systems has created demand for skilled computer and network systems security specialists. Chief Information Officers and Information Technology Managers charged with the need to plan and implement security controls and infrastructure to protect corporate information systems will increasingly require the skills of security specialists. Career opportunities will be available in both public and private sector organizations. Graduates may gain employment as administrators, technicians or security analysts.

## Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. deploy and manage desktop and server operating systems and optimize system settings in order to 'harden' information systems;
2. establish best practices to protect business resources from vulnerabilities and exploits;
3. develop security strategies for the deployment of network security procedures and network security devices;
4. establish security plans and strategies for proper use and protection of information assets including contingency and disaster plans in compliance with best practices, standards, and regulations;
5. create acceptable use policies for business information systems;
6. apply project management tools and principles in the building and deployment of security policies and strategies;
7. perform security audits using log management software and log analysis to ensure compliance with security plans, policies, standards, and regulations and present results to senior management;
8. deliver an effective security awareness and training program to ensure compliance with security policies;

9. apply basic entrepreneurial strategies to identify and respond to new opportunities in the information security field;
10. investigate and employ environmentally sustainable practices within the information security field.

## The Program Progression

### Fall Intake

- **Sem 1:** Fall 2018
- **Sem 2:** Winter 2019
- **Sem 3:** Summer 2019

## Admission Requirements

- Post-secondary diploma or degree with a focus in computer studies, or equivalent work experience in computer networks and operating systems.

## Selection Process

Applicants will be asked to submit a current resume and letter of interest to the Program Coordinator. Academic and experiential learning of all applicants will be assessed.

## Criminal Reference/Vulnerable Sector Check

Placement agencies require an up-to-date clear criminal reference check and vulnerable sector check prior to going out on placement. Students should obtain their criminal reference three months prior to placement; checks conducted earlier may not be considered current. As some jurisdictions require longer lead-time for processing, please check with the program coordinator to ensure you allow for sufficient turn-around time. It is the student's responsibility to provide the completed document prior to placement start.

NOTE: A record of criminal offences, for which a pardon has not been granted, may prevent students from completing their placements, thereby affecting their ability to graduate.

## Additional Information

To be successful in this program, you are required to have a personal notebook computer (either PC or Mac architecture) prior to the start of the program that meets or exceeds the following hardware specifications:

- Intel I3 processor or AMD equivalent
- 4GB of memory
- 250GB hard drive

Additional operating systems, security tools, and software used in the program will be provided to the student upon commencement of the program.

## Graduation Requirements

12 Program Courses

1 Internship

### Graduation Eligibility

To graduate from this program, a student must attain a minimum of 60% or a letter grade of P (Pass) or S (Satisfactory) in each course in each

semester. The passing weighted average for promotion through each semester and to graduate is 60%.

## Program Tracking

Semester 1		Hours
Program Courses		
NETS 1015	Security Management	42
NETS 1025	Network Security 1	42
NETS 1026	Windows Systems Security	42
NETS 1028	Linux Systems Security	42
NETS 1035	Applied Cryptography	42
NETS 1036	Information Security	42
Hours		252
Semester 2		
Program Courses		
NETS 1006	Contingency Planning and Disaster Recovery	42
NETS 1030	Networks Security 2	42
NETS 1032	Digital Forensics	42
NETS 1034	Hacking Techniques and Exploits	42
NETS 1037	Monitoring and Log Management	42
NETS 1038	Application Security	42
Hours		252
Semester 3		
Internship		
NETS 1033	Computer and Network Systems Security Internship	560
Hours		560
Total Hours		1064

*Information contained in College documents respecting programs is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs. The college reserves the right to add or delete programs, options, courses, timetables or campus locations subject to sufficient enrolment, and the availability of courses.*