

CYBER SECURITY PROGRAM (POSTGRADUATE) (T433) (PREVIOUSLY T413)

PROGRAM NAME	Cyber Security	TUITION	\$12,546.00 *
COURSE CODE	T433	ADDITIONAL COST	
SCHOOL	School of Computer Technology		
CENTRE	Arts, Design and Information Technology		*Amounts listed are the total of tuition, materials, student service and ancillary fees for the first three semesters of programs starting in Fall 2019 Fees are subject to change for programs starting in Fall 2020 and at later dates.
LOCATION	Casa Loma Campus		
DURATION	1 year (3 semesters)		
STARTING MONTH	September, January	International students:	Visit the International Fees and Related Costs ² page for more information.
CREDENTIAL	Ontario College Graduate Certificate	FINANCIAL ASSISTANCE	
YEAR OF STUDY	2020-2021		This program is approved for OSAP funding, provided the applicant meets OSAP eligibility criteria.
METHOD OF STUDY	FT		
APPLY TO	Ontario Colleges ¹		

The **Network and System Security Analysis (NaSSA)** graduate certificate program at George Brown College is designed to meet the high demand for information system security analysts and related IT security professionals across multiple sectors – including high-demand sectors such as consulting services, finance and healthcare.

Students graduating from this program will enter into a specialized information and communication technology (ICT) field. They will have the capabilities to assess and evaluate security risks and threats to physical and digital infrastructure, develop and implement security contingency planning, and lead the development of policies and procedures to ensure that security risk is minimized.

DELIVERY

- This full-time program is delivered in a blended format, combining face-to-face sessions with online delivery.
- This delivery format is designed to accommodate those who wish to work while taking this program.
- This schedule will require that learners attend classes, generally in the late afternoons and evenings through the week, plus all day Saturday.

THE SECURITY INNOVATIONS LABORATORY (SILO)

Casa Loma Campus, as part of a \$20-million expansion, is home to George Brown College's **Security Innovations LabOratory (SILO)** – a new learning space to support collaboration between our industry partners and students. SILO will be a standalone lab/sandbox intended to replicate live environments that can be configured to include firewalls, switches, routers, access points and mobile hardware for testing. This space is intended to be the home of the NaSSA program, as well as to be commercially available to our partner organizations, bringing industry into the learning environment. In addition to SILO, George Brown College has invested over \$1.5 million to create up-to-date wireless, security, VoIP and RF labs so that all students gain individual hands-on experience.

PROGRAM STANDARDS AND LEARNING OUTCOMES

The graduate has reliably demonstrated the ability to:

1. Apply knowledge of computer operating systems, networking and various application software to the simulation of business processes.
2. Develop best practices to protect business resources through the application of knowledge of vulnerabilities and exploits.
3. Develop security strategies for the deployment of security procedures and protective devices.
4. Integrate information technology strategies that support business functions by employing knowledge of best practices of business processes and systems.
5. Develop security plans and strategies that include acceptable use of business information and systems by internal employees, contractors, consultants, business partners and customers.
6. Develop security plans and strategies that ensure the integrity of information in compliance with best practices, relevant policies, standards and regulations.
7. Apply project management principles in the deployment of security policies and strategies.
8. Perform security audits to ensure compliance with security plans, policies, standards, regulations and best practices.
9. Develop and deliver a corporate training program to communicate both orally and in writing the security requirements for compliance with security policies.
10. Prepare security documentation of approval by senior management and present results of security audits.

REQUIRED COURSES

SEMESTER 1

Code	Course Name
COMP1154	Equipment Deployment Interconnectivity and Wiring
COMP4041	Operating Systems Security I
COMP4043	Data Governance for Private, Confidentiality, and Regulatory Compliance
COMP4044	Introduction to Cyberspace Security and Ethical Hacking
COMP4046	Network and Computer Security Fundamentals
COMP4047	ICT Competencies

SEMESTER 2

Code	Course Name
COMP4053	Advanced Data Network Security
COMP4054	Operating Systems Security II
COMP4055	Cryptography and Network Security
COMP4056	Secure Network Architecture
COMP4057	Advanced Ethical Hacking and Penetration Testing
COMP4058	Security Trends and Issues

SEMESTER 3

Code	Course Name
COMP4061	Contingency Planning and Disaster Recovery
COMP4060	Advanced Risk Analysis
COMP4063	Capstone Industry Project
COMP4071	Advanced Security Management and Auditing
COMP4073	Advanced Firewall, IDS/IPS and Virtual Private Networks(VPNs) Technology
COMP4074	Securing Wireless and Mobile Networks Access

YOUR CAREER

The growth of cyber security represents a strategic, social and business risk for organizations and the nation at large. In the Information and Communication Technologies Council (ICTC) 2011 – 2016 Outlook Report (published in 2011), security was identified as a leading technology concern by companies surveyed. This concern was driven by regulatory compliance, liability concerns, and the serious damage to an organization's reputation arising from a publicized security breach.

As a result of the growth in Information and Communication Technologies (ICT)-related theft, fraud and damages, employer demand for information systems security professionals is increasing, and growth is projected to continue. A Global Information Security Workforce Study (GISWS) indicated that the number of information system security professionals worldwide had risen more than 40%, from 1.6 million in 2008 to 2.7 million in 2012. The 2015 GISWS concluded that the information security workforce shortfall is widening. The estimated shortfall is 1.5 million from 2015 to 2020.

FUTURE STUDY OPTIONS

Students who successfully complete this program may qualify for entry into Ontario college graduate certificate and university degree programs.

For further information, see georgebrown.ca/transferguide.

ADMISSION REQUIREMENTS

- Three-year College Diploma or Bachelor's Degree in Information Technology, Computer Sciences, or a related field
- One year related work experience (resume required)

ENGLISH LANGUAGE PROFICIENCY

English language proficiency is essential. Applicants with international transcripts who do not provide English proficiency test results must test at the College level in the George Brown College English assessment to be considered for admission.

Please visit georgebrown.ca/englishproficiency for more details

COURSE EXEMPTIONS

College or university credits may qualify you for course exemptions. Please visit georgebrown.ca/transferguide for more information.

INTERNATIONAL STUDENTS

Visit the International Admissions³ page for more information.

CONTACT US

SCHOOL OF COMPUTER TECHNOLOGY⁴

Phone: 416-415-5000, ext. 4287

Email: computertechnology@georgebrown.ca

The office hours are:

Monday – Thursday: 8 a.m. – 7 p.m.

Friday: 8 a.m. – 4 p.m.

Program Co-ordinator: Jacky Min

Phone: 416-415-5000, ext. 6691

Email: jmin@georgebrown.ca

For more information about George Brown College, you may also call the Contact Centre at 416-415-2000 (TTY 1-877-515-5559) or long distance 1-800-265-2002.

VISIT OUR CAMPUS

The Network and System Security Analysis program is offered through our School of Computer Technology⁵ from our Casa Loma Campus⁶ at 146 Kendal Avenue⁷ in Toronto. Sign up for an Information Session⁸ or Campus Tour⁹ to learn more about George Brown College and the program. You can also explore our virtual tour.¹⁰

LINKS REFERENCE

¹<https://collegeapply.ontariocolleges.ca/?collegeCode=GBTC&programCode=T413&lang=en>

²<http://www.georgebrown.ca/international/futurestudents/tuitionfees/>

³<http://www.georgebrown.ca/international/futurestudents/howtoapply/>

⁴<http://www.georgebrown.ca/computertechnology/>

⁵<http://www.georgebrown.ca/computertechnology/>

⁶<http://www.georgebrown.ca/campuses/casa-loma/>

⁷<https://www.google.ca/maps/place/146+Kendal+Ave,+Toronto,+ON+M5R+1M3/data=!4m2!3m1!1s0x882b349c7146b3f7:0x6edb6695c6d490f6?sa=X&ved=0ahUKewjvpbuOybDbAhUB7oMKHfsYDNQQ8gEIKDAA>

⁸http://www.georgebrown.ca/computertechnology_info/

⁹http://www.georgebrown.ca/campus_tours/

¹⁰<https://vt.georgebrown.ca/>

George Brown College is continually striving to improve its programs and their delivery. The information contained in this calendar is subject to change without notice. It should not be viewed as a representation, offer or warranty. Students are responsible for verifying George Brown College admission, graduation, and fee requirements as well as any requirements of outside institutions, industry associations, or other bodies that may award additional designations concurrently with, or after completion of, a George Brown College program.