

# CYBERSECURITY TECHNICIAN

**Program:** CYTE

**Credential:** Ontario College Diploma

**Delivery:** Full-time + Part-time

**Length:** 4 Semesters

**Duration:** 2 Years

**Effective:** Fall 2027

**Location:** Barrie Downtown

## Description

In the two-year Cybersecurity Technician diploma program you'll gain a comprehensive foundation in protecting against digital threats while developing a broad understanding of cloud security, ethical hacking, digital forensics, and incident response.

The program curriculum covers core concepts such as networking, scripting and automation, teaching you how to build and secure automated infrastructures with support from different scripting languages. Courses in the ethical hacking stream provide opportunities to identify and assess vulnerabilities through penetration testing. In the forensics stream you'll focus on analyzing digital evidence to investigate cybercrimes. Finally, the incident response stream prepares you to manage and recover from real-time cyberattacks.

This hands-on program culminates in a capstone project in the final semester and equips graduates with the practical skills needed to enter a variety of roles in the cybersecurity field.

## Career Opportunities

Graduates can choose to work independently or as a member of a team to support the security and maintenance of computer systems and networks. Graduates of the cybersecurity technician program can find employment as security operations centre analysts, security analysts and IT support specialists.

## Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. implement and manage devices and equipment on-prem and in-cloud networks to maintain a robust security posture;
2. test security solutions for business processes, applications, and communications to protect assets;
3. evaluate risks and develop mitigation plans to support the organization's information security objectives;
4. create organizational security policies to promote internal security and comply with legal and industry frameworks;
5. perform penetration testing for infrastructures, the web and applications to identify vulnerabilities and weaknesses in network components;
6. install and use security tools to protect information systems against security threats;
7. perform system audits to identify and correct security vulnerabilities;
8. analyze and monitor logs and alerts to detect, assess, and respond to information security and cybersecurity incidents and events;
9. configure and maintain technologies to protect organizational data in transit and at rest;

10. create and apply scripts to improve the efficiency and security of organizational information systems.

## Program Progression

The following reflects the planned progression for full-time offerings of the program.

### Fall Intake

- **Sem 1:** Fall 2027
- **Sem 2:** Winter 2028
- **Sem 3:** Fall 2028
- **Sem 4:** Winter 2029

## Admission Requirements

- Ontario Secondary School Diploma (OSSD) or equivalent, or mature student status
- Grade 12 English (C or U)
- Grade 11 Mathematics (C, M, or U) or Grade 12 Mathematics (C or U)

Mature students, non-secondary school applicants (19 years or older), and home school applicants may also be considered for admission. Eligibility may be met by applicants who have taken equivalent courses, upgrading, completed their GED, and equivalency testing. For complete details refer to: [www.georgiancollege.ca/admissions/academic-regulations/](http://www.georgiancollege.ca/admissions/academic-regulations/) (<https://www.georgiancollege.ca/admissions/academic-regulations/>)

Applicants who have taken courses from a recognized and accredited post-secondary institution and/or have relevant life/learning experience may also be considered for admission; refer to the Credit for Prior Learning website for details: [www.georgiancollege.ca/admissions/credit-transfer/](http://www.georgiancollege.ca/admissions/credit-transfer/) (<https://www.georgiancollege.ca/admissions/credit-transfer/>)

## Additional Information

To be successful in this program, students are required to have a personal notebook computer prior to the start of the program that meets or exceeds the following hardware specifications:

- Intel i5 processor or AMD equivalent
- 16GB of memory
- 500GB hard drive (SSD recommended)

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

### Bringing Your Own Device (BYOD) requirements

All Georgian College students are required to bring their own device (BYOD) (<https://georgiancollege.ca/byod/>) that meets the technology requirements (<https://georgiancollege.ca/byod/>) for their program. Having access to a personal laptop that meets your program's technical requirements will ensure you're prepared for in-class, online and hybrid learning activities. Students are responsible for the cost, software installation, maintenance and repair of their device.

## Graduation Requirements

23 Program Courses  
1 Capstone Course

1 Communications Course  
3 General Education Courses

## Graduation Eligibility

To graduate from this program, the passing weighted average for promotion through each semester, from year to year, and to graduate is 60%. Additionally, a student must attain a minimum of 50% or a letter grade of P (Pass) or S (Satisfactory) in each course in each semester unless otherwise stated on the course outline.

## Program Tracking

The following reflects the planned course sequence for full-time offerings of the Fall intake of the program. Where more than one intake is offered contact the program co-ordinator for the program tracking.

| Semester 1                                                           |                                          | Hours      |
|----------------------------------------------------------------------|------------------------------------------|------------|
| Program Courses                                                      |                                          |            |
| COMP 1035                                                            | Networking Essentials                    | 42         |
| COMP 1046                                                            | Windows System Administration            | 42         |
| COMP 1111                                                            | Foundations of Scripting using Python    | 42         |
| COMP 1122                                                            | Information Security and Risk Management | 42         |
| COMP 2018                                                            | Linux System Administration              | 42         |
| Communications Course                                                |                                          |            |
| COMM 1016                                                            | Communication Essentials                 | 42         |
| General Education Course                                             |                                          |            |
| Select 1 course from the General Education list during registration. |                                          | 42         |
| <b>Hours</b>                                                         |                                          | <b>294</b> |

| Semester 2      |                                            | Hours      |
|-----------------|--------------------------------------------|------------|
| Program Courses |                                            |            |
| COMP 1071       | Linux Network Administration               | 42         |
| COMP 1123       | Windows Forensics                          | 42         |
| COMP 1124       | Security Operations and Service Management | 42         |
| COMP 1125       | Disaster Recovery and Continuity Planning  | 42         |
| COMP 1126       | Python for Cybersecurity                   | 42         |
| COMP 2003       | Relational Database 1                      | 42         |
| COMP 2017       | Windows Server Administration              | 42         |
| <b>Hours</b>    |                                            | <b>294</b> |

| Semester 3                                                           |                                           | Hours      |
|----------------------------------------------------------------------|-------------------------------------------|------------|
| Program Courses                                                      |                                           |            |
| COMP 1045                                                            | Internet of Things                        | 42         |
| COMP 2137                                                            | Linux Automation                          | 42         |
| COMP 2139                                                            | Cloud Computing Services                  | 42         |
| COMP 2150                                                            | Penetration Testing and Ethical Hacking   | 42         |
| COMP 2151                                                            | Cryptography                              | 42         |
| COMP 2156                                                            | Threat Intelligence and Incident Response | 42         |
| General Education Course                                             |                                           |            |
| Select 1 course from the General Education list during registration. |                                           | 42         |
| <b>Hours</b>                                                         |                                           | <b>294</b> |

| Semester 4               |                                           | Hours |
|--------------------------|-------------------------------------------|-------|
| Program Courses          |                                           |       |
| COMP 2077                | Network Security                          | 42    |
| COMP 2138                | Windows Server and PowerShell             | 42    |
| COMP 2152                | Cloud Security                            | 42    |
| COMP 2153                | Penetration Testing and Ethical Hacking 2 | 42    |
| COMP 2154                | Web Application Security                  | 42    |
| Capstone Course          |                                           |       |
| COMP 2155                | Capstone in Cybersecurity                 | 42    |
| General Education Course |                                           |       |

|                                                                      |             |
|----------------------------------------------------------------------|-------------|
| Select 1 course from the General Education list during registration. | 42          |
| <b>Hours</b>                                                         | <b>294</b>  |
| <b>Total Hours</b>                                                   | <b>1176</b> |

## Graduation Window

Students unable to adhere to the program duration of two years (as stated above) may take a maximum of four years to complete their credential. After this time, students must be re-admitted into the program, and follow the curriculum in place at the time of re-admission.

**Disclaimer:** *The information in this document 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.*

*Program outlines may be subject to change in response to emerging situations, in order to facilitate student achievement of the learning outcomes required for graduation. Components such as courses, progression, coop work terms, placements, internships and other requirements may be delivered differently than published.*