IT – Cybersecurity Specialist (10-151-2)

Associate of Applied Science
Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

O = Online, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	⊙ Gateway to Success (G2S)		F
1	*150-182	3	IoT: Connecting Devices		F
1	*150-194	3	🎓 Network Security[2]		F
1	*150-114	3	🎓 Network Concepts–CCNA 1[2]	Coreq: 804-135	F
1	809-198	3	Psychology, Introduction to[1,2]	Prereq: 838-105 OR 851-757	F
1	804-135	3	Quantitative Reasoning[1,2]	Prereq: 834-109	F
2	*150-106	3	Intrusion Detection Systems		S
2	*150-119	3	🎓 Network Admin MS I 2019	Coreq: 150-114	S
2	*151-123	3	Cybersecurity		S
2	801-136	3	English Composition 1[1,2]	Prereq: 831-103 OR 851-757	S
3	*150-115	3	IoT: Securing Devices	Prereq: 150-182; 804-135	SU
3	*150-124	3	Routing – CCNA 2[2]	Prereq: 150-114	SU
3	*150-145	3	IT Scripting		SU
3	809-196	3	Sociology, Introduction to[1,2]	Prereq: 838-105 OR 851-757	SU
4	*150-150	3	Red Hat Enterprise Linux I[2]	Prereq: 150-119 Coreq: 801-136	F
4	*151-130	3	Cisco CyberOps (SOC)	Prereq: 151-123	F
4	*151-131	3	Managing and Configuring Firewalls	Prereq: 151-123	F
4	801-197	3	Technical Reporting	Prereq: 801-136	F
5	*150-151	3	Red Hat Enterprise Linux II[2]	Prereq: 150-150	S
5	*151-121	3	Cloud Data Security	Prereq: 151-123	S
5	*151-122	3	Computer Security/Pen Test	Prereq: 151-130	S
5	*151-132	3	SOC: Monitor/Secure the Infrastructure	Prereq: 151-130	S

Minimum Program Total Credits Required: 64

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.
⊙ Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.
🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.
(*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

IT – Cybersecurity Specialist (10-151-2)

Cybersecurity Specialists monitor an organization's computer network, maintain system security and upgrade security measures to prevent computer security incidents and cyberattacks. Learn to protect data confidentiality, integrity and availability while learning ways to implement security mechanisms. Emphasis is placed on vigilant security awareness, identifying network threats and deploying appropriate incident responses. Through hands-on lab work, learners will build practical experience with topics such as penetration testing, log analysis, the implementation of firewalls, wireless security and incident response, as well as defenses and countermeasures. Learners will gain an understanding of legal and ethical issues associated with information security. Learners will analyze a variety of network operating systems, firewalls, virtual private networks (VPN), packet filters and intrusion detection systems (IDS) to maximize information security in the network.

Program Learning Outcomes

Graduates will be able to:

1. Identify security strategies.
2. Implement secure infrastructures.
3. Conduct security testing.
4. Analyze security data.
5. Mitigate risk.
6. Develop security documentation.

Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Critical Thinking and Problem Solving
- Professionalism and Career Management
- Teamwork and Collaboration
- Cultural Competence
- Technology Competence

Admission Requirements

1. Students must submit an application and pay $30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

Graduation Requirements

- Minimum 64 credits with a cumulative GPA of 2.0 or above.
- *Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or Graduation Requirements.

Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact cfpl@gtc.edu.