GARRETT COLLEGE CYBERSECURITY CAREER PATHWAY



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CYBERSECURITY ASSOCIATE OF APPLIED SCIENCE

The **Cybersecurity** program awards an **Associate of Applied Science (A.A.S.) degree**, designed to prepare students to enter the workforce in the cybersecurity industry. The curriculum is structured to help students develop the knowledge and skills for work in the field of computer and network security, including many offensive and defensive simulated real-world tasks that they are likely to encounter in their careers. Areas of study include security issues regarding operating systems, software engineering, networking, ethics, and other related topics. Graduates of the program will be well prepared to enter the workforce in the fields of information security, computer network security, and/or network administration.

Students have the option of choosing the traditional *Cybersecurity A.A.S. degree*, which focuses on protection of networks from cyber threats, and remediation if threats are detected, or choosing the *Cybersecurity: Network Administration concentration A.A.S. degree*, which focuses on the creation and maintenance of computer networks.

Cybersecurity— A.A.S. degree

FOUNDATIONAL AND CORE COURSES (18):

- CIS160 Operating Systems
- CIS163 Introduction to Cisco Networking
- CIS164 Router Fundamentals
- CIS230 Security +
- CIS240 Linux +

CYBERSECURITY COURSES (16):

- CIS231 Computer Forensics
- CIS232 Advanced Network Security
- CIS233 Ethical Hacking, Countermeasure
- CIS235 Introduction to Cyber Law
- CIS294 Field Experience

MAJOR ELECTIVES (4) – Choose from the following:

- CIS130 Programming Logic
- CIS170 Computer Science Programming
- CIS210 Computer Science Programming
- CIS220 Networking Fundamentals (Net+)
- CIS221 Advanced Routing and Switching
- CIS222 WAN Technologies
- CIS234 Ethics in the Information Age
- CIS241 Managing Server

Cybersecurity—A.A.S. degree (Network Administration concentration)

FOUNDATIONAL AND CORE COURSES (18):

- CIS160 Operating Systems
- CIS163 Introduction to Cisco Networking
- CIS164 Router Fundamentals
- CIS230 Security+
- CIS240 Linux +

NETWORKING CONCENTRATION OURSES (14):

- CIS161 PC Maintenance & Repair
 - CIS220 Networking Fundamentals (Net+)
 - CIS241 Managing Server
 - CIS294 Field Experience

MAJOR ELECTIVES (6) – Choose from the following:

- CIS130 Programming Logic
- CIS170 Computer Science Programming
- CIS210 Computer Science Programming
- CIS221 Advanced Routing and Switching
- CIS222 WAN Technologies
- CIS231 Computer Forensics
- CIS232 Advanced Network Security
- CIS233 Ethical Hacking, Countermeasure
- CIS234 Ethics in the Information Age
- CIS235 Introduction to Cyber Law

The recently-released Cyber Security Jobs Report (January 2013) estimates that there are over 19,000 current cybersecurity job openings in the State. The report also states that "it appears there is a great need for candidates with 0-5 years' experience." A full 20 percent of these jobs (>3,800) are available to candidates with an Associate's degree or less, according to data presented in the report.

For more information, please contact: Jill Horner, TAACCCT Grant Coordinator – Cybersecurity 240-321-3850 jill.horner@garrettcollege.edu

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