CYBERSECURITY

Frederick Community College

Program Contact

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Cybersecurity

The Cybersecurity program prepares students for a career in the cybersecurity capacities, such as information security analyst, information technology auditor, network security engineer, and information assurance engineer. This program covers technologies, techniques, and tools required by the cybersecurity industry to identify and respond to threats and vulnerabilities in cyber systems.

Cybersecurity Area of Concentration within the A.A.S. in STEM Technology

The Cybersecurity Area of Concentration within the A.A.S. in STEM Technology covers the skills needed to design, analyze, evaluate, and implement security controls in the cyber environments. In addition to preparing students for a career in the cybersecurity capacities, the program prepares graduates for professional certifications including A+, Net+, Security+, Certified Ethical Hacker (CEH), Certified Information Systems Security Professional (CISSP), and Certified Information Security Auditor (CISA).

Learning Outcomes

- Knowledge of disaster recovery and continuity of operations plans
- Knowledge of systems administration concepts and operations
- Knowledge of the operations and processes for diagnosing system problems
- Knowledge of the maintenance needed to keep equipment functioning properly
- Knowledge of physical computer components and architectures, and their functions
- Knowledge of network security architecture concepts, including topology, protocols, components, and principles
- Skills in conducting research for troubleshooting client-level problems

Learning Outcomes *(continued)*

- Skills in identifying possible causes of degradation of system performance or availability and initiating actions needed to mitigate this degradation
- Skills in testing and configuring network workstations and peripherals
- Skills in using the appropriate tools for repairing software, hardware, and peripheral equipment of a system
- Skills in identifying the risks and threats to an organization's data and providing a structured way of addressing how to safeguard these critical electronic assets
- Skills in a systems approach to critical thinking

Information Security and Assurance Certificate

The Information Security and Assurance Certificate program is designed for students seeking to build skills in specialty areas (e.g., information security), upgrade current skills, or broaden their general knowledge base in information technology. This program provides students with the basics of systems security with emphasis placed on access controls, how to protect data and computer systems, networking, auditing, and how to detect malicious code activity. All CIS courses completed in these certificates apply directly to an A.A.S. degree in information technology.

Financial Assistance

Frederick Community College (FCC) provides a tuition payment plan for students who wish to spread payment over several months. Scholarship and loan assistance is available for eligible students. For complete scholarship information, contact Financial Aid at 301.846.2620.

Growth Potential & Estimated Salaries

The median annual wage for information security analysts was $99,730 in 2019. Overall employment of information security analysts is projected to grow 32% from 2018 to 2028, much faster than the average for all occupations.

Source: Bureau of Labor Statistics Occupational Outlook Handbook (bls.gov/ooh)

Internship Program

Internships help students integrate what is taught in the classroom with what is required in the workplace. Students take internships to develop knowledge and skills valued by employers. Students in the Cybersecurity Area of Concentration program at FCC are eligible to receive credit for internships.

Transfer Note

To find more information about how credits will transfer from FCC to a state four-year institution, visit artsys.usmd.edu or consult a College advisor. FCC has articulation agreements with Mount St. Mary's University, Stevenson University, and University of Maryland – Global Campus, allowing students a seamless transfer experience. Students who plan to transfer should speak with an advisor or program manager from their chosen transfer institution before selecting elective courses.

View required course listings:
frederick.edu/cyber

For more information:

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Frederick Community College makes every effort to accommodate individuals with disabilities for College-sponsored events and programs. If you have accommodation needs or questions, please call 301.846.2408. To request a sign language interpreter, please visit http://fcc-interpreting.genbook.com. If you have interpreting related questions, please email Interpreting@frederick.edu. Sign language interpreters will not be automatically provided for College-sponsored events without a request for services. To guarantee accommodations, requests must be made at least five workdays in advance of a scheduled event. If your request pertains to accessible transportation for a College-sponsored trip, please submit your request at least 21 calendar days in advance. Requests made less than 21 calendar days in advance may not be able to be guaranteed.

Gainful employment information is available at www.frederick.edu/GE.

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