

CYBER DEFENSE CERTIFICATE

Award: Certificate in Information Systems Security

No. of credits required: 39

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Program Description

The Cyber Defense Certificate is designed to enable students to obtain knowledge, skills, and competencies in the challenging cybersecurity field. The certificate is designed in a compressed format so that students complete four courses per semester. Students completing the certificate are able to combine these credits toward the completion of the Information Assurance and Cybersecurity A.A.S. degree to satisfy their individual goals.

Program Goals

Upon successful completion of this program of study, students will be able to:

1. Apply software patches to operating systems and applications
2. Assess a computer system's security vulnerabilities using appropriate resources
3. Use standard software tools to detect attempted security breaches of computer systems
4. Implement computer network security defenses
5. Prepare for industry recognized certifications

Employment Information

According to the Occupational Handbook, national employment is expected to increase by as much as 28% from 2016-2026 in the cybersecurity field. Demand is expected to be very high, as these individuals will be needed to create innovative solutions to prevent hackers from stealing critical information or causing problems for computer networks.

Recent employment data for the state of Maryland published by EMSI Economic Modeling in 2015 suggests the State has experienced a 53% increase in cyber job postings since 2011.

The Courses listed in the Cyber Defense Certificate are designed to align with the competencies identified and desired by employers. Students successfully completing are prepared to pursue industry certifications such as Net+ , Sec+ , Linux+ , CCENT.

Certificate Requirements

Students earning a certificate from HCC must complete or demonstrate exemption from the following courses: ENG 003 Reading and Understanding College Textbooks and ENG 012 Basic Writing, or ENG 018 Integrated Reading and Writing, and MATH 020 Pre-Algebra I. See graduation requirement details in this catalog for further information.

Required Courses

Code	Title	Credits
ISS 105	Intro to Cybersecurity (GI)	3
CIS 102	Introduction to Information Sciences (GI)	3
CIS 114	Introduction to Computer User Support	3
or ISS 222	Computer Forensics	

CIS 135	Introduction to Networks	3
CIS 210	Fundamentals of Network Security	3
CIS 104	Computer Operating Systems	3
CIS 110	Introduction to UNIX/Linux	4
CIS 211	MS Windows Server Operating System	3
ISS 220	Strategic Infrastructure Security	3
ISS 111	Cisco 1	4
ISS 221	Network Defense & Countermeasures	3
ISS 112	Cisco 2	4
Total Credits		39