INFORMATION ASSURANCE AND CYBERSECURITY CERTIFICATE

Award: Certificate in Information Systems Security
No. of credits required: 27
For more information: *Contact Business & Applied Technology at bat@harford.edu; or Admissions, 443-412-2109.*

Program Description

This program prepares students to enter the high demand field of Information Technology Security. With the increase of viruses and other security breaches, companies need professionals who can protect data and equipment from internal and external security threats. Students in this program gain hands-on experience with the latest hardware and software and learn to implement appropriate security policies and procedures.

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

Employment Information

According to the *Occupational Handbook*, overall employment may increase by as much as 5% by 2029 for computer network architects due to the integration of sophisticated technologies and the need to implement security measures. The information assurance and cybersecurity field is expected to generate many new jobs over the next decade as firms across all industries place a high priority on safeguarding their data and systems. The Maryland Labor Department Occupational Projections data projects a 39.14% increase statewide through 2028 in the Information Security Analyst field.

Certificate Requirements

In order to earn a certificate from Harford Community College, students must demonstrate basic competencies in English, reading, and mathematics by completing: ENG 018 Integrated Reading and Writing, MATH 020 Pre-Algebra I, and/or a qualifying exam must be passed.

Required Courses

Code	Title	Credits
CIS 102	Introduction to Information Sciences (GI)	3
CIS 104	Computer Operating Systems	3
CIS 135	Introduction to Networks	3
CIS 210	Fundamentals of Network Security	3
CIS 211	MS Windows Server Operating System	3
ISS 220	Strategic Infrastructure Security	3
ISS 221	Network Defense & Countermeasures	3
ISS 222	Computer Forensics	3
PHIL 221	Business Ethics (GAH)	3
Total Credits		**27**

Note: Credit by Examination is offered for students who have experience working in the field of information technology. Please contact Ralf Fritze for more information.

General Education Degree Requirements

Note: The following codes identify courses which satisfy the General Education Degree Requirements:

Behavioral/Social Science (GB)
English Composition (GE)
Arts/Humanities (GAH)
Interdisciplinary and Emerging Issues (GI)
Biological/Physical Laboratory Science (GL)
Mathematics (GM)
Biological/Physical Science (GS)