

Cybersecurity

Description: As the number of computers being used to store sensitive information for personal, business, and government purposes increases, the need for securing computers and other systems that store this information becomes more obvious. Information security professionals are needed to provide security for these infrastructures. The Associate of Applied Science (A.A.S) program in Cybersecurity is designed for students who are interested in pursuing careers in cybersecurity, network/systems administration, and system programmers. This program will also consist of courses that help to prepare students for these industry certification exams:

- CompTIA Security+
- GIAC Security Essentials (GSEC)
- Certified Information Privacy Professional (CIPP)
- Systems Security Certified Practitioner (SSCP)
- Certified Ethical Hacker (CEH)
- Security Certified Network Professional (SCNP)
- Global Information Assurance Certification (GIAC)

Student Learning Outcomes

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

- Use technology and critical thinking skills effectively to analyze and communicate matters of information security
- Detect, analyze, identify and resolve security vulnerabilities, threats & breaches using appropriate tools
- Install, configure and monitor information systems security devices/software, as well as apply software patches and service packs
- Identify the implications of information systems configuration weaknesses
- Identify the implications of information systems policy/procedure weaknesses as well as human errors
- Determine the necessity for cyber investigation and retrieve/seize cyber evidence from computer systems without contamination
- Utilize basic security features to configure and harden operating systems

Program Entry Requirements: New students are normally required to take the College's placement test at their time of entry. Students who have had prior computer-related experience may be placed in more advanced courses after consultation with and the approval of the department chairperson. Also, students who possess business computer application skills may test out of CIS 103: Computer Technology & Concepts. Students who are identified as needing developmental course work must satisfactorily complete the appropriate English and mathematics courses as part of their degree program.

Program of Study and Graduation Requirements: A total of 61 credit hours as prescribed must be satisfactorily completed with a grade point average of 2.0 ("C" average).

Cybersecurity Course Sequence			
Course Number and Name	Prerequisites and Corequisites	Credits	Gen Ed Requirements
FIRST SEMESTER			
CIS 103 - Computer Technology & Concepts		3	Technological Competency
CIS 150 - Network Technology		4	
ENGL 101 - English Composition I		3	ENGL 101
FNMT 118 - Intermediate Algebra or higher math		3	Mathematics
General Elective		3	
SECOND SEMESTER			
CIS 152 - Introduction to Cybersecurity	CIS 150	3	
CIS 155 - Principles of Operating Systems		3	
ENGL 102 - The Research Paper	ENGL 101 with a grade of "C" or better	3	ENGL 102, Info Lit
SOC 101 - Introduction to Sociology or SOC 115 - Women and Men in America or ANTH 112 - Cultural Anthropology	For SOC 115: ENGL 101	3	Social Sciences, Am/Global Div., Interpretive Studies, Writing Intensive
ENGL 115 - Public Speaking or ENGL 117 - Group and Team Communication	ENGL 101 , which may be taken concurrently	3	Humanities
THIRD SEMESTER			
CIS 114 - Java Script		4	
CIS 204 - Fundamentals of Linux and Unix	CIS 105 or CIS 155	3	
CIS 252 - Windows Server Configuration	CIS 150	4	
CIS 259 - Computing & Network Security	CIS 150 with a C or better	4	
FOURTH SEMESTER			
MATH 121- Computer and Logic		3	
PHYS 105 - Survey of Physics (preferred) or ASET 130 - Quality Control/Quality Assurance	For ASET 130: FMNT 118	4	Natural Science
CIS 261 - Cyber Investigation	CIS 155	4	
CIS 274 - Ethical Hacking & Penetration Testing	CIS 152 and CIS 259	4	
MINIMUM CREDITS NEEDED TO GRADUATE:		61	

GENERAL EDUCATION REQUIREMENTS: All general education requirements necessary for graduation are met through the courses in the program as indicated above. Students who wish to take courses that differ from the general education courses indicated above must consult with an advisor or counselor before registering. A more detailed explanation of the College's general education requirements appear at <http://ccp.edu/college-catalog/degree-requirements>

For more information, contact: The Division of Business and Technology, Room B2-22, 1700 Spring Garden Street, Philadelphia, PA 19130, Telephone (215) 751-8785 or the College Information Center (215) 751-8010.