Cybersecurity

Associate in Science

DIVISION OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

The Cybersecurity Associate in Science degree provides courses and content that are informed by two major sources of proven requirements for cybersecurity education in 2-year colleges: NICE Framework from National Institute of Standards and Technology (NIST) and Knowledge Unit required for National Centers of Academic Excellence (CAE) in Information Assurance/Cyber Defense (IA/CD) designation, a program jointly sponsored by the National Security Agency (NSA) and the Department of Homeland Security (DHS).

The goal of this program is to offer a balanced and comprehensive security program. The objective of this program is to provide students with such knowledge, skills, and abilities that are expected from a student who has earned an associate degree in cybersecurity from a CAE-2Y designated program. Students completing this program will be prepared and are encouraged to gain industry credentials by taking CompTIA and Cisco's certifications industry standard examinations offered by leading Networking and Cybersecurity certification organizations.

Career Outlook:
This degree program prepares students with appropriate security knowledge to enable their employment as a network and security technician and/or specialist. Students completing this certificate are trained with the latest technology and learning environment acquiring knowledge in networking and security that will help them secure a position in security field that offers great job opportunities.

Upon successful completion, the Associate in Science Degree in Cybersecurity is awarded.

PROGRAM FOOTNOTES

Program Electives: CS 113 Fundamentals of Information Technology (IT), CS 123 Python Programming, CS 212 Systems Programming with C, CS213 Database Management, CS214 Computer Architecture and Assembly Language, MA 104 Pre-Calculus

Humanities Electives:
Art, Communication, English (EN 103 or higher), ESL (ES 100 or higher; up to 6 credits), Film, Foreign Language, Humanities, Literature, Music, Oral Communication, Philosophy, Photography, Sign Language, Theater Arts

Social Science Electives: Anthropology, Economics, Geography, Government, History, Law, Psychology, Sociology

COURSE	COURSE TITLE	CREDITS
First Year	*Semester 1*	
CT 100	Critical Thinking	3
CS 110	Introduction to Computer Science	4
EN 101	English Composition I	3
CS 118	Scripting	3
MA 105	Introduction to Statistics	3
	credits:	**16**
First Year	*Semester 2*	
CS 180	Intro to Operating Systems	3
LA 236	Cybercrime	3
EN 102	English Composition II	3
CS 242	Computer Networks	4
	Program Elective	3/4
	credits:	**16/17**
Second Year	*Semester 1*	
CS 141	Linux System Management	3
CS 116	Fundamentals of Cybersecurity	4
CS 243	Computer Networks II	4
	Program Elective	3/4
CS 117	Cyber Ethics	3
	credits:	**17/18**
Second Year	*Semester 2*	
CS 247	Perimeter Defense	3
CS 248	Securing Access	3
	Humanities/Social Science Elective	3
	Program Elective	3/4
CS 281	Capstone Experience	3
	credits:	**15/16**
	Total Credits:	**64/67**

Quantitative skills are a MassBay graduation competency for associate degree programs. Prior to graduation, students must demonstrate this competency by completing a 100-level math course (not MAC); or placing into a 200-level mathematics course.