

Diploma in Cybersecurity

30 credits

Program Description

A program that focuses on the technological and operational aspects of information warfare, including cyber-attack and cyber defense. Students will learn the role of an information technology security specialist, demonstrate compliance and operational security, the use of ethical hacking, how to prevent IT attacks, the use of physical security, and the proficiency in network device security and access control models, legal and ethical issues, and cyber warfare systems development and acquisition.

Program Objectives

1. Demonstrate knowledge, skill, and application of computer systems.
2. Demonstrate knowledge of different operating systems.
3. Demonstrate an understanding of Internet safety and ethical issues in cybersecurity.
4. Demonstrate an understanding of cybersecurity, including its origins, trends, culture, and legal implications.
5. Describe the national agencies and supporting initiatives involved in cybersecurity.
6. Discuss the underlying concepts of terms used in cybersecurity.
7. Demonstrate an understanding of basic computer components, their functions, and their operation.
8. Demonstrate an understanding of the technical underpinnings of cybersecurity and its taxonomy, terminology, and challenges.
9. Demonstrate an understanding of common cyber-attack mechanisms, their consequences, and motivation for their use.
10. Demonstrate an understanding of social engineering and its implications to cybersecurity.
11. Demonstrate an understanding of methods and strategies for controlling access to computer networks.

Program sequence will be available at the time of enrollment.

The language of instruction and program delivery modality are subject to availability.

Notes:

1. This program may be offered in English or Spanish according to demand. COMPLETING A COURSE OR PROGRAM IN A LANGUAGE OTHER THAN ENGLISH MAY REDUCE EMPLOYABILITY WHERE ENGLISH IS REQUIRED.
2. Students must abide with the minimum required hours and policies set by the state and local education agencies for practicum experiences, as applicable.
3. Students must comply with state and local education certification requirements for the diploma program, as applicable.

Program Curriculum

Course	Title	Credits
MATH 101	Mathematical Reasoning I	3
COIC 101	Introduction to Computers	3
CYBS 101	Computer Hardware and Networks	3
CYBS 102	Installing and Configuring Windows Servers	3
CYBS 103	Network Infrastructure Security	3
CYBS 104	Introduction to Cyber Security Management and Digital Crime	3
CYBS 105	Cybersecurity Operation-Identity and Information Security	3
CYBS 106	Linux Networking and Security	3
CYBS 107	Digital Forensics and Investigation	3
CYBS 108	Penetration Testing and Legal-Ethical Hacking	3
Total credits		30