

COMPUTER INFORMATION SYSTEMS – CYBERSECURITY – ASSOCIATE IN SCIENCE DEGREE, CERTIFICATE OF ACHIEVEMENT

Top Code:

0708.00

This cybersecurity program prepares students with necessary skills to seek employment in the field of Information Technology to administer enterprise network security. Instruction includes training in basic enterprise system and network administration with an emphasis on system and network security, and computer forensics. Students are exposed to a wide variety of security analysis/defensive tools, and students implement these tools. Upon completion of coursework, students will have the foundation needed to pursue industry certifications such as Python Institute Certified Entry-Level Python Programmer (PCEP), CompTIA A+, CompTIA Server+, CompTIA Network+, CompTIA Security+, EC-Council Certified Ethical Hacker, Cisco CCT Routing & Switching, Cisco Certified CyberOps Associate, and Microsoft Windows System Administration or CompTIA Linux+/LPI Linux Administrator.

A Certificate of Achievement is awarded upon completion of all required courses with a grade of C or better.

Program Outcomes

- Describe basic enterprise system and network administration, security administration, and computer forensics.
- Plan, implement, and maintain enterprise network solutions.
- Plan, implement, and maintain enterprise operating system solutions.
- Plan, implement, and support network security solutions.
- Conduct digital investigations that conform to accepted professional standards.

Requirements for the Certificate of Achievement

Code	Title	Units
Required Courses		
CIS 012	INTRODUCTION TO PROGRAMMING USING PYTHON	3
CIS 041	CCNA: INTRODUCTION TO NETWORKS	3
CIS 042	CCNA: ROUTING, SWITCHING, AND WIRELESS ESSENTIALS	3
CIS 045	MCP: MICROSOFT WINDOWS SYSTEM ADMINISTRATION	3-4
or CIS 040	UNIX/LINUX ADMINISTRATION	
CIS 061	INTRODUCTION TO INFORMATION SYSTEMS SECURITY	3

CIS 063	INTRODUCTION TO CYBERSECURITY: ETHICAL HACKING	3
CIS 065	DIGITAL FORENSICS FUNDAMENTALS	3
Required Electives (3-4 units)		3-4
CIS 011	INFORMATION AND COMMUNICATION TECHNOLOGY ESSENTIALS	
CIS 031	INTRODUCTION TO DATABASE MANAGEMENT SYSTEMS	
CIS 040	UNIX/LINUX ADMINISTRATION	
CIS 045	MCP: MICROSOFT WINDOWS SYSTEM ADMINISTRATION	
CIS 151	VCP-DCV: VMWARE VSPHERE ADMINISTRATION	
CIS 164	CCNA: ENTERPRISE NETWORKING, SECURITY, AND AUTOMATION	
Total Units		24-26

Visit the Program Mapper (<https://pasadena-city.programmapper.ws/academics/interest-clusters/35afad1b-8598-4ecf-a320-0ed4834a7df8/programs/b2bbeae3-62bd-f410-713c-60fb0940985b/>) for a suggested sequence of courses.

General Education Requirements for the Associate in Science Degree

- General Information (<https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/>)
- PCC Local Gen Ed (<https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#pcclocaltext>)
- CSU Breadth (<https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#csubreadthtext>)
- IGETC (<https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#igetctext>)