

COMPUTER INFORMATION SYSTEMS (CIS)

About the program

The Computer Information Systems (CIS) Networking program is a certified Cisco Networking Academy and provides training in local area network (LAN) and wide area network (WAN) installation, and management. Students also learn skills in computer programming, PC maintenance and repair, and network security from CompTIA Security+ certified instructors.

Degrees/Certificates within this Program:

- Associate of Science Degree, CIS Networking
- Certificate of Achievement, CIS Networking
- Certificate of Recognition, Network Technician

Similar Degrees/Certificates offered at CR:

- Associate of Science Degree, Computer Office Support Specialist
- Associate of Science Degree, Digital Media
- Certificate of Achievement, Digital Media

Career Opportunities

Employment opportunities in this field include:

- Computer and Network Installers
- Computer Support Specialist
- Technical Support Technicians
- Network Technicians
- Network Systems Analyst
- Information Security Analyst

For more information

- Dan Calderwood, Professor, Computer Information Systems
707-476-4365 | dan-calderwood@redwoods.edu
- Chris Romero, Professor, Computer Information Systems
707-476-4366 | chris-romero@redwoods.edu
- www.redwoods.edu/cis/
- Career & Technical Division, 707-476-4341
- Counseling & Advising, 707-476-4150

Certificate of Recognition, CIS Cybersecurity

Program Requirements	Units
CIS 30 CCNA: Computer Network Fundamentals	4.0
CIS 31 Systems and Network Administration	4.0
CIS 35 Introduction to Security	4.0
CIS 37 Ethical Hacking	4.0
Total Units	16.0

About this Certificate

This certificate includes instruction in the measures that must be taken to detect and prevent network security mistakes and vulnerabilities, and includes descriptions of common attacks, and methods to configure the operating system, servers, routers, firewalls, and email. Students completing this certificate program will be qualified for employment in entry-level network security positions.

The Computer Information Systems - Cybersecurity program will give the student a solid foundation in the field of Computer Security. The focus on Cybersecurity will provide the student with some of the basic skills needed for an entry-level career in Cybersecurity. The courses provide an overview of the entire field. Courses that make up the program are aligned with, and prepare students for, industry standard certifications such as: Cisco Certified Entry Networking Technician (CCENT), Microsoft Certified Solutions Associate (MCSA), Computer Technology Industry Association (CompTIA) Security+, and EC Council Ethical Hacking.

Suggested Program Sequence

Fall Start

Semester 1 (Fall) CIS 30, CIS 31

Semester 2 (Spring) CIS-35

Semester 3 (Fall) CIS-37

Program Learning Outcomes

- Define the elements of the Confidentiality, Integrity, and Availability triad, along with the purpose of each of the elements.
- Describe the tools and methods a "hacker" uses to break into a computer or network.
- Apply strategies for network defense using firewalls, routers, switches, and anti-malware tools.
- Construct and apply secure group policy settings at the Organizational Unit (OU), Domain, Site or local machine level.