

ENTERPRISE NETWORKING

Program Description

This program prepares students to design, administer, maintain, and troubleshoot networks of all sizes. Skills gained include specification preparation, network management, network design, equipment and system sales and software development. Laboratory courses provide students with hands-on experience to demonstrate the principles of Enterprise Networking. Courses provide learning opportunities for students new to the field, as well as those who are experienced professionals. Specialized courses are also available to help the student prepare for certification exams, including: Cisco Certified Network Associate (CCNA), VMware Certified Professional - Data Center Virtualization, and AWS Cloud Practitioner.

Learn more about the program on the [Computer Science website](#).

Program Learning Outcomes

- The student will be able to design a network infrastructure to support specific user and business requirements.
- The student will be able to design, implement and maintain appropriate security services for network systems.
- The student will be able to select the components to create a virtual infrastructure.
- The student will be able to specify, design and configure a simple AWS cloud deployment.

Career Opportunities

Enterprise Networking graduates have career opportunities in Information Communication Technology (ICT), computer networks, cybersecurity, cloud infrastructure management, data center visualization, data communications, marketing, system design, specification writing, technical writing, data center management, network management, sales, equipment installation, diagnostics and programming.

Award Type(s)

- AS = Associate in Science Degree

Units Required

- Major: 40.5

Associate Degree Requirements

Code	Title	Units
English Proficiency		
Select one of the following:		
ENGL 1A	COMPOSITION & READING	5
ENGL 1AH	HONORS COMPOSITION & READING	5
ENGL 1S & ENGL 1T	INTEGRATED COMPOSITION & READING and INTEGRATED COMPOSITION & READING	8
or equivalent		
Mathematics Proficiency		
Select one of the following:		
MATH 105	INTERMEDIATE ALGEBRA	5
MATH 180	QUANTITATIVE REASONING	5

or any MATH course approved for Foothill GE Area V, Communication & Analytical Thinking

A minimum of 90 units is required¹ to include:

- Completion of one of the following general education patterns: Foothill General Education, CSU General Education Breadth Requirements or the Intersegmental General Education Transfer Curriculum (IGETC)
- Core courses (31.5 units)
- Support courses (9 units)

¹ Additional elective course work may be necessary to meet the 90-unit minimum requirement for the associate degree.

Note: All courses pertaining to the major must be taken for a letter grade. In addition, a grade of "C" or better is required for all core and support courses used for the degree.

Core and Support Courses

Code	Title	Units
Core Courses		
C S 30A	INTRODUCTION TO LINUX	4.5
C S 50A	NETWORK BASICS (CCNA)	4.5
C S 50B	ROUTING & SWITCHING ESSENTIALS (CCNA)	4.5
C S 53A	CYBERSECURITY FUNDAMENTALS	4.5
C S 53B	FIREWALLS & THREAT MANAGEMENT	4.5
C S 55A	INTRODUCTION TO CLOUD COMPUTING IN AMAZON WEB SERVICES	4.5
C S 55B	DATABASE ESSENTIALS IN AMAZON WEB SERVICES	4.5
Support Courses		
Select two courses from one of the following options:		9
<i>Cloud Computing Option</i>		
C S 55C	COMPUTE ENGINES IN AMAZON WEB SERVICES	
C S 55D	SECURITY IN AMAZON WEB SERVICES	
<i>Enterprise Security Option</i>		
C S 53C	ETHICAL HACKING	
C S 53D	INTRODUCTION TO COMPUTER FORENSICS	
<i>Linux Option</i>		
C S 30C	LINUX SYSTEM ADMINISTRATION	
C S 30D	ADVANCED LINUX SYSTEM ADMINISTRATION	
C S 30E	LINUX SYSTEM ADMINISTRATION: NETWORK SERVICES	
Total Units		40.5