COMPUTER NETWORK ENGINEERING (CNEE)

Credit Courses

CNEE 101 Introduction to Computers and Networks (4 Units)
Hours: 72 (72 lecture)
Technical introduction to computers and networks. It provides a thorough understanding of basic computer and network components and how they are implemented in a system. Topics include computer hardware and software, standards, protocols, terminology and concepts.
Transfer Information: CSU Transferable, UC Transferable

CNEE 102 A+ Computers and Network Support (4 Units)
Hours: 108 (54 lecture, 54 lab)
Technical introduction to managing and maintaining PC hardware, peripherals, mobile devices and network equipment. Prepares for A+ Certification exams. Includes hands-on lab activities.
Transfer Information: CSU Transferable
C-ID: ITIS 110.

CNEE 106 Telecommunications And WAN (3 Units)
Hours: 54 (54 lecture)
Introduction to voice, data and video communications. Overview of the telecommunications industry, customer premises equipment, switched and private networks, transmission media, fiber optics, T-1 technology, channel banks, switching and signaling; advanced telecommunications services, local area networks, wide area networks, Internet, ISDN, personal computing systems and telecommunications protocols.
Transfer Information: CSU Transferable

CNEE 109 Introduction to Internet of Things (IoT) (3 Units)
Hours: 54 (54 lecture)
Theoretical introduction to the Internet of Things. Identifying, designing, prototyping, and presenting an IoT solution that securely solves a current problem. Data analysis theories and practice- analytics of IoT sensors and Artificial Intelligence.
Transfer Information: CSU Transferable, UC Transferable

CNEE 110 Networking Essentials (4 Units)
Course Advisories: CNEE 102.
Hours: 108 (54 lecture, 54 lab)
Introduction to networking components and systems including networking standards, protocols, operating systems, security, media and hardware. Prepares students for CompTIA N+ Certification.
Transfer Information: CSU Transferable
C-ID: ITIS 150.

CNEE 112 Managing and Maintaining Computer Software - A+ (3 Units)
Hours: 72 (45 lecture, 27 lab)
Technical introduction to managing and maintaining computer software. Prepares for A+ Software Certification exam. Includes hands-on lab activities.
Transfer Information: CSU Transferable
C-ID: ITIS 110.

CNEE 120 Introduction to Cybersecurity (4 Units)
Course Advisories: CNEE 110.
Hours: 108 (54 lecture, 54 lab)
Fundamentals of Cybersecurity principles and implementation. Covers authentication, attacks and malicious code, threats and countermeasures, security topologies, intrusion detection, cryptography, firewalls and physical security concepts.
Transfer Information: CSU Transferable

CNEE 124 IInternetworking with Tcp/Ip (4 Units)
Course Advisories: CNEE 110.
Hours: 108 (54 lecture, 54 lab)
Introduction to TCP/IP Protocol suite, including IPv4 and IPv6 addressing, name resolution, and other concepts and information relevant to setting up and using TCP/IP-based networks.
Transfer Information: CSU Transferable

CNEE 125 CCNAI-Introduction to Switching and Routing (5 Units)
Course Advisories: CNEE 110.
Hours: 126 (72 lecture, 54 lab)
First half of CCNA certification preparation. Networking concepts, switching, static and dynamic routing.
Transfer Information: CSU Transferable

CNEE 126 CCNA II Advanced Routing and Switching (5 Units)
Course Advisories: CNEE 125.
Hours: 126 (72 lecture, 54 lab)
Second half of CCNA certification preparation. Advanced routing and switching concepts.
Transfer Information: CSU Transferable

CNEE 135 CCNP Advanced Routing (4 Units)
Course Advisories: CNEE 126.
Skills Advisories: Eligibility for ENG 110 or ENG 110H and proficiency in MATH 004 or MATH 041.
Hours: 108 (54 lecture, 54 lab)
Advanced Cisco routing configurations including OSPF, EIGRP, BGP and extended IP addressing. Provides classroom and laboratory experience in current and emerging technologies leading to CCNP Routing certification exam.
Transfer Information: CSU Transferable

CNEE 137 CCNP Advanced Switching (4 Units)
Course Advisories: CNEE 126.
Hours: 108 (54 lecture, 54 lab)
Planning, configuring and verifying the implementation of complex enterprise switching solutions that use the Cisco Enterprise Campus Architecture.
Transfer Information: CSU Transferable

CNEE 146 CCNA Security - Firewalls and VPNs (4 Units)
Course Advisories: CNEE 125.
Hours: 108 (54 lecture, 54 lab)
An advanced networking course on installation, configuration and operation of network security on Cisco routers and ASA firewalls, including AAA, access control, intrusion detection, NAT, and VPNs.
Transfer Information: CSU Transferable

CNEE 148 CCNA Cybersecurity Operations (4 Units)
Course Advisories: CNEE 125.
Hours: 108 (54 lecture, 54 lab)
Advanced cybersecurity course. network security concepts, and techniques used in a Security Operations Center (SOC) to find threats on a network using a variety of popular security tools. Prepares for CCNA Cyber Ops certification.
Transfer Information: CSU Transferable

CNEE 175 Cisco Network Associate Review (1.5 Unit)
Course Advisories: CNEE 126.
Hours: 45 (18 lecture, 27 lab)
Intensive course designed as a review of Cisco Network Associate principles.
Transfer Information: CSU Transferable

CNEE 206 MS Windows Network Infrastructure (3 Units)
Course Advisories: CNEE 110 and CIS 206.
Hours: 72 (45 lecture, 27 lab)
Introduction to MS Windows network infrastructure. Installation, configuration, management and support of DHCP, DNS, Active Directory, security and Internet services. Includes hands-on lab activities.
Transfer Information: CSU Transferable

CNEE 295 Internship In Computer Network Engineering And Electronics (4 Units)
Hours: 210 (210 lab)
Structured internship program in which students gain experience with community organizations related to the discipline.
Transfer Information: CSU Transferable