

COMPUTER NETWORK TECHNOLOGIES (CNG)

CNG 1004 | Introduction to TCP/IP

Lecture Credit: 3

Outlines four important networking architectures in corporate environments today - TCP/IP, SNA, AppleTalk, and DNA. Focuses on the major components and functions of each of these architectures as well as methods used to connect different architectures. Provides students with concepts that are important to the field of systems integration, as well as a conceptual basis for understanding network architectures.

CNG 1016 | Microcomputer Hardware

Lecture Credit: 3

Introduces computer hardware. Since hardware depends upon specific software to make it work properly, the course also explores relevant software topics. The course covers taking computers apart, diagnosing and fixing minor problems, and upgrading PCs with new components.

CNG 1020 | A+ Certification Preparation

Lecture Credit: 4

Prepares students for the CompTIA A+ certification examination. PC hardware and operating system installation, configuration and troubleshooting are practiced and reviewed using A+ techniques.

CNG 1021 | Computer Technician I: A+

Lecture Credit: 4

Provides students with an in-depth look at personal computer hardware, introduces networking concepts, and covers operational procedures and troubleshooting, all of which are necessary for a successful entry-level computer service technician position. Provides extensive hands-on work with computer systems, PC setup and configuration, and basic maintenance and troubleshooting. This course helps prepare you for the first CompTIA A+ Exam.

CNG 1022 | Computer Technician II: A+

Lecture Credit: 4

Provides students with an in-depth look at desktop and mobile Operating System support, maintenance, and troubleshooting, and an overview of security concepts, and interpersonal skills, all of which are necessary for a successful entry-level computer service technician position. Provides extensive hands-on work with current operating systems, including using common GUI and command line tools, registry editing, system backup and recovery, and advanced troubleshooting. This course helps prepare you for the second CompTIA A+ Exam.

Prerequisite: CNG 1021 with a grade of C or better

Corequisite: CNG 1021

CNG 1024 | Networking I: Network +

Lecture Credit: 3

Provides students with the knowledge necessary to understand, identify and perform necessary tasks involved in supporting a network. Covers the vendor-independent networking skills and concepts that affect all aspects of networking, such as installing and configuring the TCP/IP. This course also prepares students for the Networking II: Network + course.

CNG 1025 | Networking II: Network +

Lecture Credit: 3

Continues to provide students with the knowledge necessary to implement and support a network. Focuses on the vendor-independent networking skills and concepts that affect all aspects of networking. The Networking I and II: Network + courses prepare students for the Network + certification.

Prerequisite: CNG 1024 with a grade of C or better

CNG 1031 | Principles of Information Assurance

Lecture Credit: 3

Provides skills and knowledge required to survey key issues associated with protecting information assets, determine the levels of protection and response to security incidents, and design a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. Students learn to inspect and protect information assets, detect and react to threats to information assets, and examine pre- and post-incident procedures, and technical and managerial responses. Students learn about information security planning and staffing functions.

CNG 1032 | Network Security Fundamentals

Lecture Credit: 3

Delivers a comprehensive overview of network security, including general security concepts. Communication Security is studied, including remote access, e-mail, the Web, directory and file transfer, and wireless data. Common network attacks are introduced. Cryptography basics are incorporated, and operational/organizational security is discussed as it relates to physical security, disaster recovery, and business continuity. Computer forensics is introduced.

Corequisite: CNG 1001 or CNG 1024

CNG 2001 | Linux Configuration: (OS)

Lecture Credit: 3

Install a Linux operating system (OS). Configure and manage OS using command line interface (CLI) and text editor. Topics include installation and configuration of updates, services, file system, users and groups, file and folder permissions, networking, and remote access.

CNG 2002 | Unix/Linux Server Admin

Lecture Credit: 3

Provides students with the knowledge and skills required to configure, administer and secure data, users and services in a UNIX or Linux server environment. Emphasis will be on command-line interface (CLI). Topics will also include system monitoring, performance tuning, troubleshooting and interoperability with Windows servers and clients.

Prerequisite: CNG 2001 or CIS 2020 with a grade of C or better

CNG 2009 | MS Server Active Directory Configuration

Lecture Credit: 4

Provides students with the knowledge and skills to configure Active Directory Domain Services in a distributed environment, implement Group Policies, perform backup and restore, and monitor and troubleshoot Active Directory related issues.

CNG 2011 | Windows Configuration: (OS)

Lecture Credit: 3

Provides students with the knowledge and skills necessary to address the implementation and desktop support needs of customers who are planning to deploy and support Microsoft Windows Client OS in a variety of network operating system environments.

Prerequisite: CNG 1001 or CNG 1024 with a grade of C or better

CNG 2042 | Cloud Computing

Lecture Credit: 3

Installs, configures and manages a cloud environment. Builds on knowledge of hypervisor and virtual machine environments.

CNG 2056 | Vulnerability Assessment I

Lecture Credit: 3

Presents students with an introduction to vulnerability assessment. Vulnerability assessment skills are necessary to understand how companies address vulnerabilities in the business environment. Students gain a better understanding of how information technology security integrates into the corporate world and how a balance must be achieved between security and functionality.

Prerequisite: CNG 1032 or CNG 2001 with a grade of C or better

CNG 2057 | Network Defense and Counter Measures

Lecture Credit: 3

Examines the tools, techniques and technologies used in the technical securing of information assets. This course provides in-depth information of the software and hardware components of Information Security and Assurance. Topics include firewall configurations, hardening Unix and NT servers, Web and distributed systems security and specific implementation of security modes and architectures. The curriculum maps to the Security Certified Network Professional (SCP) Network Defense and Countermeasures exam.

Prerequisite: CNG 1032 with a grade of C or better

CNG 2075 | Special Topics

Provides students with a vehicle to pursue in depth exploration of special topics of interest

Note: Special topics courses range from 0-12 credits and vary in learning type. Please see your program chair for more information about your options.

CNG 2087 | Cooperative Education

Internship Credit: 3

To be determined by the individual instructor. A Course Description will be developed for each course and documented within the course syllabus. Refer to the SFCC Style Guide for Course Description, Required Course Learning Outcome, and Topical Outline guidelines.

CNG 2089 | Capstone

Lecture Credit: 3

Provides a demonstrated culmination of learning within a given program of study.