

COMPUTER INFORMATION SYSTEMS: NETWORKING (CISN)

CISN 11 Telecommunications Networking

3 Units (Degree Applicable, CSU)

Lecture: 54

Corequisite: CISN 11L

Advisory: CISB 11

Prepares students for the first year Cisco Certified Network Associate (CCNA) and Network+ certification. Telecommunications networking focusing on network concepts and designs; network standards; Transmission Control Protocol and Internet Protocol (TCP/IP) version 4 (IPv4) and version 6 (IPv6); Open Systems Interconnection (OSI); network protocols; transmission media; switch; hardware architecture; local area network (LAN); wide area network (WAN); remote connectivity; Microsoft and Linux network operating system; network troubleshooting, maintenance, and upgrade; network and wireless security; system vulnerability; and network sniffing analysis.

Course Schedule

CISN 11L Telecommunications/Networking Laboratory

0.5 Units (Degree Applicable, CSU)

Lab: 27

Corequisite: CISN 11

Telecommunications Networking lab preparing students for first year Cisco Certified Network Associate (CCNA) and Network+ certification. Telecommunications Networking focusing on network concepts and designs, network standards, Transmission Control Protocol and Internet Protocol (TCP/IP) version 4 (IPv4) and version 6 (IPv6), Open Systems Interconnection (OSI), network protocols, transmission media, switch, hardware architecture, local area network (LAN), wide area network (WAN), remote connectivity, Microsoft and Linux network operating system, network troubleshooting, maintenance, and upgrade, network and wireless security, system vulnerability, and network sniffing analysis.

Course Schedule

CISN 21 Windows Operating System

3 Units (Degree Applicable, CSU)

Lecture: 54

Advisory: CISB 11 or CISB 15

Windows operating system installation and performance tweaking, including hardware and software issues, Windows system files, and Windows security.

Course Schedule

CISN 24 Window Server Network and Security Administration

3 Units (Degree Applicable, CSU)

Lecture: 54

Corequisite: CISN 24L

Advisory: CISN 11

Computer Network Administration and Security Management (CNASM) core. Microsoft Certified Solutions Expert (MCSE) topics, Active Directory security and Group Policy management, Hyper-V virtual server installation, Dynamic Host Configuration Protocol (DHCP), Domain Name Service (DNS), file system security, logon script, software deployment, network printing, Remote Desktop (RD) Gateway and RD Web Access, Network Address Translation (NAT), Internet Protocol Security (IPsec) and secure Virtual Private Network (VPN), Internet Protocol (IP) version 6 (v6) DHCPv6, DNSv6, and IPv6 Routing.

Course Schedule

CISN 24L Window Server Network and Security Administration Laboratory

0.5 Units (Degree Applicable, CSU)

Lab: 27

Corequisite: CISN 24

Laboratory applications for Microsoft Server Certification Expert (MCSE) topics, Active Directory security and Group Policy management, Hyper-V virtual server installation, Dynamic Host Configuration Protocol (DHCP), Domain Name Service (DNS), file system security, logon script, software deployment, network printing, Remote Desktop (RD) Gateway and RD Web Access, Network Address Translation (NAT), IPsec and secure Virtual Private Network (VPN), Internet Protocol (IP) version 6 (v6) DHCPv6, DNSv6, and IPv6 Routing. Student must be enrolled in CISN 24 - Window Server Network and Security Administration, a concurrent lecture co-requisite.

Course Schedule

CISN 31 Linux Operating System

3 Units (Degree Applicable, CSU)

Lecture: 54

Corequisite: CISN 31L

Advisory: CISB 11

Concepts and skills in planning and installing Linux Operating System (OS) and its graphical user interface (GUI); using Linux Shells and system administration commands; managing user accounts; installing hardware and software; and maintaining file systems and system resources.

Course Schedule

CISN 31L Linux Operating System Laboratory

0.5 Units (Degree Applicable, CSU)

Lab: 27

Corequisite: CISN 31

Laboratory for planning, installing, and managing Linux Operating System (OS) and its graphical user interface (GUI); using Linux Shells and system administration commands; managing user accounts; installing hardware and software; and maintaining file systems and system resources. Concurrent enrollment in CISN 31 lecture course is required.

Course Schedule

CISN 34 Linux Networking and Security

3 Units (Degree Applicable, CSU)

Lecture: 54

Corequisite: CISN 34L

Advisory: CISN 31

Installation and management of Linux operating system networks and security modules. Concept study and installation of Transmission Control Protocol/Internet Protocol (TCP/IP) protocols, Internet Protocol (IP) addressing, network protocols and servers, routers, and network applications. Creating Linux intranets and connecting to Internet. Student must take CISN 34L, a concurrent lab co-requisite.

Course Schedule

CISN 34L Linux Networking and Security Laboratory

0.5 Units (Degree Applicable, CSU)

Lab: 27

Corequisite: CISN 34

Laboratory for installation and management of Linux operating system networks and security modules. Concept study and installation of Transmission Control Protocol/Internet Protocol (TCP/IP) protocols, Internet Protocol (IP) addressing, network protocols and servers, routers, and network applications. Creating Linux intranets and connecting to Internet. Student must be enrolled in CISN 34, a concurrent lecture course co-requisite.

Course Schedule

CISN 51 Cisco CCNA Networking and Routing

3 Units (Degree Applicable, CSU)

Lecture: 54

Corequisite: CISN 51L

Advisory: CISN 11

Computer Network Administration and Security Management (CNASM) core. Preparation for Cisco Certified Network Associate (CCNA) certification. Design and configuration of local area networks (LAN), wide area networks (WAN), open systems interconnection (OSI) model, advanced Subnetting, route summarization, command line Interface (CLI), transmission control protocol and Internet protocol (TCP/IP), Cisco internetwork operating system (IOS), router, advanced switching, virtual LAN (VLAN), access control lists (ACL), wireless and network security, Internet protocol version 6 (IPv6), point-to-point protocol (PPP), voice over Internet protocol (VoIP), and routing protocols including static route, routing information protocol (RIP), enhanced interior gateway routing protocol (EIGRP), and open shortest path first (OSPF). Student must be enrolled in CISN 51L, a concurrent lab co-requisite.

Course Schedule

CISN 51L Cisco CCNA Networking and Routing Laboratory

0.5 Units (Degree Applicable, CSU)

Lab: 27

Corequisite: CISN 51

Lab to prepare for Cisco Certified Network Associate (CCNA) certification. Design and configuration of local area networks (LAN), wide area networks (WAN), open systems interconnection (OSI) model, advanced subnetting, route summarization, command line interface (CLI), transmission control protocol and Internet protocol (TCP/IP), Cisco internetwork operating system (IOS), router, advanced switching, virtual LAN (VLAN), access control lists (ACL), wireless and network security, Internet protocol version 6 (IPv6), point-to-point protocol (PPP), voice over Internet protocol (VoIP), and routing protocols including static route, routing information protocol (RIP), enhanced interior gateway routing protocol (EIGRP), and open shortest path first (OSPF). Student must be enrolled in CISN 51 - Cisco CCNA Networking and Routing, a concurrent lecture co-requisite.

Course Schedule

CISN 61 Virtualization Technology

3 Units (Degree Applicable)

Lecture: 54

Advisory: CISB 11 or CISN 21 or CISN 31

Plan, configure, secure, install, and maintain latest virtual systems from prominent vendors.

Course Schedule