CISCO NETWORK TECHNOLOGY (CNT)

CNT140AA / Introduction to Networks
4 Credits / 6.0 Periods for Lecture & Lab
Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination. Prerequisites: None.
Division: Business and Computing Studies

CNT140AB / Introduction to Networks
4 Credits / 6.0 Periods for Lecture & Lab
Focus on the architecture, structure, functions, components, and models of the Internet and other computer networks. Principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination. Prerequisites: None.
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CNT150AA / Cisco - Routing and Switching Essentials
4 Credits / 6.0 Periods for Lecture & Lab
Architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. Configuration and troubleshooting routers and switches and resolving common issues with RIPv1, RIPng, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT140AA or permission of Instructor.
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CNT150AB / Switching, Routing, and Wireless Essentials
4 Credits / 6.0 Periods for Lecture & Lab
Focus on configuring switches and routers for use in small and medium size networks. Including Virtual Local Area Networks (VLANs), VLAN trunking, Inter-VLAN routing, Spanning Tree Protocol (STP), EtherChannel, Dynamic Host Configuration Protocol (DHCP), First Hop Redundancy, Local area Network (LAN) and Switch security, and Static routing. Knowledge and skills needed to implement a Wireless Local Area Network (WLAN) is also covered. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT140AB or permission of Instructor.
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CNT160AA / Scaling Networks
4 Credits / 6.0 Periods for Lecture & Lab
Architecture, components, and operations of routers and switches in large and complex networks. Configuring routers and switches for advanced functionality. Configuring and troubleshooting routers and switches and resolving common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Developing the knowledge and skills needed to implement a WLAN in a small-to-medium network. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT150AA, or permission of Instructor.
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CNT160AB / Enterprise Networking, Security, and Automation
4 Credits / 6.0 Periods for Lecture & Lab
Focus on the configuration of routers and switches within small and medium size networks for advanced functionality including Open Shortest Path First (OSPF), Network security, Access Control Lists (ACLs), Network Address Translation (NAT), Wide Area Network (WAN) concepts, Virtual Private Networks (VPNs), Quality of Service (QOS), network management, design, troubleshooting, virtualization, and automation. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT150AB or permission of Instructor.
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CNT170AA / Cisco - Connecting Networks
4 Credits / 6.0 Periods for Lecture & Lab
Wide Area Network (WAN) technologies and network services required by converged applications in a complex network. Criteria selection of network devices and WAN technologies to meet network requirements. Configuring and troubleshooting network devices, and resolving common issues with data link protocols issues, and developing the knowledge and skills needed to implement Internet Protocol Security (IPSec) and Virtual Private Network (VPN) operations. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT160AA, or permission of Instructor.
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CNT171 / CCNA Exam Prep
1 Credit / 2.0 Periods for Lecture & Lab
Preparation for renewal of CCNA certification by reviewing the Open Systems Interconnection (OSI) model and industry standards including network topologies, IP addressing, subnet masks, access control list, basic network design and cable installation. Practice the skills to configure, customize, maintain and troubleshoot Cisco routers and switches for Local Areas Networks (LANs) and Wide Area Networks (WANs) using Cisco IOS command set. Review any new material introduced since the last CCNA exam version. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor. Course Notes: CNT171 can be offered on credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog.
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CNT200 / CCNP ROUTE: Implementing Cisco IP Routing
4 Credits / 6.0 Periods for Lecture & Lab
Development of knowledge and skills needed to manage Internet Protocol (IP) traffic and access, understand scalable internetworks and Quality of Service (QoS), configure advanced routing protocols Border Gateway Protocol [BGP], Intermediate System to Intermediate System [IS-IS], Enhanced Interior Gateway Routing Protocol [EIGRP], Open Shortest Path First [OSPF], as well as multicast routing, Internet Protocol (IPv6), and perform advanced IP addressing configuration, Dynamic Host Configuration Protocol (DHCP). Preparation for Cisco Certified Network Professional (CCNP) exam. Prerequisites: A grade of C or better in CNT160AB, or CCNA industry certification, or permission of Instructor. Corequisites: CNT220. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) exam.
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CNT202 / Cisco Secure Firewall Appliance Configuration
4 Credits / 5.0 Periods for Lecture & Lab
Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and solutions, secure firewall design, installation, configuration and maintenance, Authentication, Authorization, and Accounting (AAA), Failover, and Virtual Private Network (VPN) implementation using firewalls. Prerequisites: A grade of C or better in CNT160AB or permission of Instructor.
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CNT205 / Cisco Certified Network Associate Security
4 Credits / 6.0 Periods for Lecture & Lab
Associate-level knowledge and skills required to secure Cisco networks. Development of a security infrastructure, identification of threats and vulnerabilities to networks. Mitigation of security threats. Core security technologies. Installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor.
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CNT206 / Cisco Certified Network Associate Wireless
4 Credits / 6.0 Periods for Lecture & Lab
Associate-level knowledge and skills required in Cisco wireless networks. Includes comprehensive hands-on labs to design, plan, implement, operate, secure, and troubleshoot wireless networks. Prerequisites: A grade of C or better in CNT160AB or permission of Instructor. Course Notes: Prepares students to earn Cisco Certified Network Associate Wireless (CCNA Wireless) designation by taking the Implementing Cisco Unified Wireless Networks Essentials (IUWNE) exam.
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CNT220 / CCNP SWITCH: Implementing Cisco IP Switching
4 Credits / 6.0 Periods for Lecture & Lab
Development of knowledge and skills in building, monitoring, and maintaining switching in converged enterprise networks using advanced and multi-layer switching technologies. Planning, configuring, securing and verifying the implementation of complex enterprise switching solutions. Hands-on learning and practice to reinforce configuration skills. Prerequisites: A grade of C or better in CNT160AB, or CCNA industry certification, or permission of Instructor. Corequisites: CNT200. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) exam.
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CNT231 / CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks
4 Credits / 6.0 Periods for Lecture & Lab
Development of knowledge and skills in monitoring and maintaining complex enterprise routed and switched Internet Protocol (IP) networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, in a systematic approach. Extensive labs emphasize hands-on learning and practice to reinforce configuration skills. Prerequisites: A grade of C or better in CNT200 and CNT220, or permission of Instructor. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) exam.
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CNT240 / Cisco Certified Network Professional: Enterprise Core
8 Credits / 12.0 Periods for Lecture & Lab
Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam.
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CNT240AA / Cisco Certified Network Professional: Enterprise Core I
4 Credits / 6.0 Periods for Lecture & Lab
Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam.
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CNT240AB / Cisco Certified Network Professional: Enterprise Core II
4 Credits / 6.0 Periods for Lecture & Lab
Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications. Prerequisites: A grade of C or better in CNT240AA. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam.
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CNT250 / Cisco Certified Network Professional: Enterprise Advanced Routing and Services
8 Credits / 12.0 Periods for Lecture & Lab
Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.
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CNT250AA / Cisco Certified Network Professional: Enterprise Advanced Routing and Services I
4 Credits / 6.0 Periods for Lecture & Lab
Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.
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CNT250AB / Cisco Certified Network Professional: Enterprise Advanced Routing and Services II
4 Credits / 6.0 Periods for Lecture & Lab
Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Prerequisites: A grade of C or better in CNT250AA.
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