CIS - NETWORK COMMUNICATIONS (150)

150-117. Introduction to Cisco Networks. (3 Credits)
In this Cisco 1: Introduction to Networks (ITN) course, learn about the architecture, structure, functions and components of the internet and other computer networks. Gain a basic understanding of how networks operate and how to build simple local area networks (LAN), perform basic configurations for routers and switches, and implement Internet Protocol (IP).
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=117)

150-118. Switching Routing & Wireless. (3 Credits)
In this Cisco 2: Switching, Routing and Wireless Essentials (SRWE) course, explore the architecture, components and operations of routers and switches in small networks. Gain an introduction to wireless local area networks (WLAN) and security concepts. Learn how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks.
Prerequisites: (150-178 with a minimum grade of C or 150-117 (may be taken concurrently) with a minimum grade of C)
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=118)

150-119. Networking Security Automation. (3 Credits)
In this Cisco 3: Enterprise Networking, Security, and Automation (ENSA) course, learn to describe the architecture, components, operations and security to scale for large, complex networks, including wide area network (WAN) technologies. Explore network security concepts, network virtualization and automation. Learn how to configure, troubleshoot and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation.
Prerequisites: (150-179 with a minimum grade of C or 150-118 (may be taken concurrently) with a minimum grade of C)
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=119)

150-120. Cloud Fundamentals. (1 Credit)
Explore the fundamentals and best practices of cloud deployments. Learn about infrastructure-as-code and how to right-size, tight-size, and optimize workloads to reduce cloud spend. In order to be successful in this course, students should have basic understanding of servers, networking and virtualization.
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=120)

150-121. Enterprise Clients. (3 Credits)
Explore the installation and configuration of the latest Windows operating system, user access control, security settings, and troubleshooting and optimization of system performance and reliability. Complete hands-on lab activities, including configuring system settings, disk management, installing and configuring network protocols, configuring local security, and setting up and managing user accounts. Learn how to configure and navigate the latest Mac operating system. This course uses a combination of lectures, demonstrations, discussions, online assignments and hands-on labs.
Prerequisites: (150-178 with a minimum grade of C or 150-175 with a minimum grade of C or 150-117 (may be taken concurrently) with a minimum grade of C or 150-190 (may be taken concurrently) with a minimum grade of C)
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=121)

150-122. Intro to PowerShell Scripting. (1 Credit)
Learn how to use PowerShell, the .NET task-based command-line shell and scripting language that was designed for systems administration. Begin with PowerShell commands, Cmdlets, then learn to create and run scripts that include sequential, conditional and loop structures. Explore control and log files, as well as various opportunities to automate administrative tasks. Gain an introduction to building Graphical User Interfaces (GUIs) for scripts. No prior scripting, coding or Windows administration experience is expected.
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=122)

150-124. Intro to Microsoft Azure. (1 Credit)
Explore the core concepts and best practices of designing Microsoft Azure environments. Learn about cloud-based virtual machines, storage, networking, disaster recovery and serverless technologies, which create a cloud-based data center. To succeed in this course, you should understand servers, networking and virtualization.
Prerequisites: 150-120 with a minimum grade of C
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=124)

150-136. MS Server 2012 Install/Config. (3 Credits)
This course prepares students for certification of the Exam 70-410. The exam is one of a series of three exams which validate the skills and knowledge necessary to implement a core Windows Server 2012 infrastructure into an existing enterprise environment. Topics include managing active directory domain services objects, automating active directory domain services administration, implementing networking services, implementing local storage, implementing file and print services, implementing group policy and implementing server virtualization with Hyper-V.
Prerequisites: (150-190 with a minimum grade of C or 150-175 with a minimum grade of C)
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=136)

150-137. MS Server. (3 Credits)

Gain hands-on experience installing Windows Server, configuring file access and managing network services. Learn to administer Active Directory, secure Windows Server and troubleshoot the server environment. All labs are available in the WCTC private cloud environment.

Prerequisites: (150-190 (may be taken concurrently) with a minimum grade of C or 150-178 with a minimum grade of C or 150-175 with a minimum grade of C or 150-117 (may be taken concurrently) with a minimum grade of C)

See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=137)

150-144. Cisco 3 - Scaling Networks. (3 Credits)

Explore the architectures and considerations related to designing, securing, operating and troubleshooting enterprise networks. Learn about wide area network (WAN) technologies and quality of service (QoS) mechanisms used for secure remote access. Gain an introduction to virtualization and automation concepts that support the digitalization of networks. Gain skills to configure and troubleshoot enterprise networks, and learn to identify and protect against cybersecurity threats. Explore network management tools, and learn key concepts of software-defined networking, including controller-based architectures and how application programming interfaces (APIs) enable network automation. Explain and configure Open Shortest Path First (OSPF), Access Control Lists (ACL), Network Address Translation (NAT), Wide Area Network (WAN), Virtual Private Networks (VPN) and IPsec security, and network management with various protocols and tools.

Prerequisites: (150-176 with a minimum grade of C or 150-179 with a minimum grade of C)

See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=144)

150-145. Cisco4-Connecting Networks. (3 Credits)

Learn about the WAN technologies and network services required by converged applications in a complex network. Develop an understanding of the selection criteria of network devices and WAN technologies to meet network requirements. Learn how to configure and troubleshoot network devices and resolve common issues with data link protocols, and develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network.

Prerequisites: (150-144 with a minimum grade of C)

See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=145)

150-150. Cloud Infrastructure/Services. (3 Credits)

Learn about the technologies required to build classic, virtualized and cloud data center environments. These technologies include compute, storage, networking, desktop and application virtualization. Additional topics include backup/recover, business continuity, security and management. Prepare for the EMC Cloud Infrastructure and Services (EMCCIS) Associate certification.

Prerequisites: (150-190 with a minimum grade of C or 150-175 with a minimum grade of C or 150-178 with a minimum grade of C)

See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=150)

150-151. Windows 10 Install/Configure. (3 Credits)

Develop the skills and knowledge necessary to configure and support Windows 10 computers, devices, users and associated network and security resources. Students are prepared to work with networks configured as a domain-based or peer-to-peer environment with access to the Internet and cloud services. Topics covered will include installation, configuration, optimization, network configuration and troubleshooting of the Windows 10 desktop operating system.

Prerequisites: (150-190 with a minimum grade of C or 150-175 with a minimum grade of C or 150-178 with a minimum grade of C)

See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=151)

150-152. VMWare vSphere. (3 Credits)

This authorized VMware training course features hands-on training focusing on installing, configuring, and managing VMware vSphere, which includes VMware ESXi and vCenter Server. This course provides a solid understanding of the administration of a vSphere infrastructure for an organization of any size. WCTC is a VMware IT Academy allowing students to take the certification test at a significant discount and meeting the VCP training requirement.

Prerequisites: (150-150 with a minimum grade of C or 150-139 (may be taken concurrently) with a minimum grade of C or 150-136 (may be taken concurrently) with a minimum grade of C or 150-137 (may be taken concurrently) with a minimum grade of C)

See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=152)

150-153. Virtualization. (3 Credits)

Gain hands-on training installing, configuring and managing VMware vSphere, which includes VMware ESXi and vCenter Server. Learn how to install and configure Microsoft Hyper-V. WCTC is an authorized VMware IT Academy, allowing you to take the certification test at a significant discount and meet the VCP training requirement.

Prerequisites: (150-137 with a minimum grade of C or 150-136 with a minimum grade of C)

See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=153)

150-154. Shell Scripting. (2 Credits)

Enhance system administration and networking skills by learning Shell Script programming. Automate the use of powerful Linux/Unix commands and tools through Bash Shell scripts. Generate reports from system and log files, and perform the most common Windows administration tasks using Power Shell.

Prerequisites: (150-136 with a minimum grade of C or 150-188 with a minimum grade of C or 150-137 with a minimum grade of C)

See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=154)

150-157. Security II. (3 Credits)

Take an in-depth look at the security risks and threats to an organization's data, and use a structured approach to address the safeguarding of critical electronic assets. Prepare for the CompTIA Security+ certification exam.

Prerequisites: 150-178 with a minimum grade of C or 150-117 with a minimum grade of C and (151-106 (may be taken concurrently) with a minimum grade of C and 150-188 with a minimum grade of C)

See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=157)

150-161. Ethical Hacking. (3 Credits)
This course is an introduction to ethical hacking and penetration testing concepts. Students will scan for vulnerabilities on their network, then will both exploit, and mitigate those vulnerabilities. Emphasis in this course will be placed on the technology of the exploits, and their mitigation techniques, as well as reporting findings regarding network and vulnerability scans.
Prerequisites: 150-157 (may be taken concurrently) with a minimum grade of C and (150-179 with a minimum grade of C or 150-118 (may be taken concurrently) with a minimum grade of C) and 150-164 (may be taken concurrently) with a minimum grade of C
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=161)

150-164. Intro to Bash Shell Scripting. (1 Credit)
As a system administrator, web developer, network analyst or security analyst, learn to create utilities and automate tasks as a system administrator. Become prepared to parse and analyze text files by learning RegEx, sed and awk. Prior exposure to Linux servers is recommended, but coding and scripting experience are not required.
Prerequisites: (150-188 with a minimum grade of C or 150-186 with a minimum grade of C)
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=164)

150-165. Cloud AWS. (3 Credits)
Explore cloud concepts, AWS core services, security, architecture, pricing and support. Hands-on-labs include AWS Compute, Storage, Virtual Private Cloud, Elastic Load Balancing and Cloud Security. Prepare for the AWS Certified Cloud Practitioner certification.
Prerequisites: 150-190 (may be taken concurrently) with a minimum grade of C or 150-175 with a minimum grade of C or 150-178 with a minimum grade of C or 150-117 (may be taken concurrently) with a minimum grade of C
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=165)

150-166. AWS Solutions Architect. (3 Credits)
Explore the fundamentals of building IT infrastructure on the AWS platform. Learn how to optimize the AWS Cloud by understanding how AWS services fit into cloud-based solutions. Apply AWS Cloud best practices and design patterns to architect optimal IT solutions on AWS. Build a variety of infrastructures in guided, hands-on activities. The content in this course aligns with the AWS Certified Solutions Architect - Associate certification.
Prerequisites: 150-165 with a minimum grade of C
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=166)

150-168. Wireless Networking & Security. (3 Credits)
Develop a complete foundation of knowledge regarding the installation, configuration and maintenance of WLANs. Perform hands-on lab activities and emerge with the skills necessary to prepare for both the CWNA and Cisco Wireless certifications.
Prerequisites: (150-186 with a minimum grade of C or 150-188 with a minimum grade of C)
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=168)

150-169. Business Continuity Planning. (3 Credits)
Develop the skills needed to respond to network intrusion incidents, and understand the impact and plan for disaster recovery scenarios. Prepare a Business Impact Analysis (BIA); develop and practice a contingency plan; understand crisis communication with employees, customers and vendors; and develop the skills need to successfully recover from a serious incident. This course is the capstone for the Information Security Certificate.
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=169)

150-172. Wireless Technology. (3 Credits)
More wireless devices in homes and businesses provide more opportunities for intrusions compared to standard wired networks. Gain an introduction to various wireless technologies, including IoT, Bluetooth and wireless networks. Learn what role security, BYOD and corporate policies play in the effectiveness and design of wireless infrastructure. Use various hardware and software to identify and help mitigate various wireless security vulnerabilities. Work in teams to design a wireless network solution for a given business need.
Prerequisites: 150-178 with a minimum grade of C or 150-117 with a minimum grade of C
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=172)

150-173. Cloud Technologies. (3 Credits)
Explore the Microsoft Azure cloud environment to help prepare for the Microsoft Azure Fundamentals certification. Create configuration solutions using Microsoft Teams, Windows Server Update Services and Microsoft IIS servers. In addition, you will design a cloud-based VoIP solution.
Prerequisites: 150-165 with a minimum grade of C and 150-137 with a minimum grade of C
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=173)

150-178. Cisco 1 - Intro to Networks. (3 Credits)
Explore the architectures, models, protocols and networking elements that connect users, devices, applications and data through the Internet and across modern computer networks, including IP addressing and ethernet fundamentals. Learn to build simple local area networks (LAN) that integrate IP addressing schemes and foundational network security, and perform basic configurations for routers and switches.
Prerequisites: (Computer Skills Assessment70 or College Profi - Comp Skills or Work Experience - Comp Skills or 860-702 with a minimum grade of S)
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=178)

150-179. Cisco2-Route/Switch Essentials. (3 Credits)
Explore switching technologies and router operations that support small to medium business networks and include wireless local area networks (WLAN) and security concepts. Learn key switching and routing concepts. Perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN. Note: Students in this course should have completed 150-178 or 150-175 within last year.
Prerequisites: (150-178 with a minimum grade of C or 150-175 with a minimum grade of C)
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=179)

150-188. Linux Essentials. (3 Credits)
Develop a solid foundation for using and understanding Linux, an open source operating system. Learn how to work with the shell, install software, edit configuration files, create scripts, manage processes and work with the Linux file system. Upon completion of the course, administer a Linux system by managing users and groups, set permissions and configure networking. This course also provides preparation for the Linux Essentials certification from LPI.
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=188)

150-190. Network Fundamentals. (2 Credits)
Learn the fundamentals of local area networking, defining networks with the OSI Model and understanding wired and wireless networks. Gain an understanding of the Internet Protocol, implementing TCP/IP and working with networking services. Additional topics include wide area networks, network infrastructures, network security and desktop operating system basics.
See sections of this course (http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=150&num=190)