

Information Technology Specialist (ITS) Program

CIOS Course Descriptions

Computer Information and Office Systems (CIOS) courses are the courses offered through the ITS program. CIOS courses are used to meet certificate and degree requirements of the Information Technology Program and requirements for the computer application specialty of the applied business degree.

CIOS F100

Introduction to the PC 1.0 CR

This five-week course provides an introduction to basic computer skills including using the mouse and menus, opening and exiting applications, creating basic word processing and spreadsheet files, basic file management, web browsing, e-mail, and virus protection.

CIOS F110

Microcomputer Operating Systems 3.0 CR

This course is a comprehensive technical class designed to develop the skills necessary to support and troubleshoot common operating systems. Students will learn how to install, and configure the operating system, how to use the command prompt, techniques to diagnose and troubleshoot the operating system, and how to perform preventative maintenance. The course also helps students prepare to take the CompTIA A+ OS Technologies exam. (Recommended: CIOS F150 or equivalent computer literacy.)

CIOS F128

Using and Configuring PC Operating Systems:
Microsoft Windows Vista 3.0 CR

This course is designed to teach students how to use, setup, and configure the Windows Vista operating system. The course including basic troubleshooting and maintenance techniques. (Recommended: CIOS F150 or equivalent computer literacy.)

CIOS F130

Microcomputer Word Processing:
Microsoft Word 2007 3.0 CR

This course is a comprehensive class on using Microsoft Word 2007 and will teach students how to use, create, format, and revise documents; work with a variety of proofing and editing tools; implement styles; use templates, wizards, coaches and assistants; use graphic tools; create mail merges; and create documents through collaboration and revision; and use application customization options, such as custom toolbars and macro languages to create different word processing documents. (Recommended: CIOS F150 or equivalent computer literacy.)

CIOS F133

Microcomputer Presentation Software:
Microsoft PowerPoint 2007 3.0 CR

This course will teach students how to design effective presentations using Microsoft PowerPoint 2003. The course includes strategies about how to organize and design effective presentations. (Recommended: CIOS F150 or equivalent computer literacy.)

CIOS F135

Microcomputer Spreadsheets:
Microsoft Excel 2007 3.0 CR

This course is a comprehensive class on using Microsoft Excel 2007 and will teach students how to create, format and revise spreadsheets. Students will learn basic worksheet skills, including using multiple worksheets; formula creation skills; using database or list skills to organize, analyze, and query information; creating graphs and charts; and using the auditing capabilities of the worksheet to look for and correct worksheet errors. (Recommended: CIOS F150 or equivalent computer literacy.)

CIOS F146

Using Internet Tools and Technologies 3.0 CR

This course teaches students how to use and configure current web, e-mail, and Internet communication tools; how to develop effective search strategies; and how to build basic web pages for the Internet. Students will also develop a basic understanding of the technologies and protocols used on the Internet. Course topics include weblogs, wikis, instant messaging, multimedia, e-commerce, HTML, XHTML, TCP/IP, DNS, LANs and WANs and other web technologies. (Recommended: CIOS F150 or equivalent computer literacy.)

CIOS F150

Computer Business Applications 3.0 CR

This course provides a basic introduction to using a computer and office applications. Includes the operating system, how to save/retrieve files; word processing, document creation and formatting; spreadsheets, basic formulas and functions; and the Internet, browsing, searching and e-mail. (Provides basic computer literacy. No previous computer experience is required.)

CIOS F210

Hardware and Software Configuration and Troubleshooting 3.0 CR

This course teaches students the fundamentals of computer hardware configuration and troubleshooting. Includes installing, removing, and configuring computer hardware components; diagnosing hardware and related software problems; and developing troubleshooting and configuration procedures. The course also helps students prepare to take the CompTIA A+ Core Hardware exam. (Recommended: CIOS F110 or equivalent skills.)

CIOS F211

Computer Technical Support 3.0 CR

This course prepares students to provide technical support to computer users. Students will learn how to diagnose and research problems; meet the needs of computer users, develop training materials, workshops and lessons. (Prerequisite: This course is the capstone course for the ITS degree. Students must be in final year of ITS degree program or receive instructor permission.)

CIOS F212

Advanced Operating Systems:
Implementing Client and Server Operating 4.0 CR

This course provides students with the knowledge and skills necessary to install and configure client operating systems computers that are part of a workgroup or domain. This course also provides students with the skills and knowledge necessary to install and configure server operating systems; how to administer network accounts and resources; and how to setup file, print, Web, and Terminal servers. This course focuses on implementing Windows Server 2003 and Windows XP. (Recommended: CIOS 110 and 210 or equivalent skills.)

CIOS F212

Advanced Operating Systems:
Linux 3.0 CR

This course provides students with an introduction to the Linux operating system. Students will learn basic Linux concepts and how to install and configure the Linux operating system. Topics include printing, partitions, file systems, GUI's, networking and basic hardware installation. (Prerequisites: CIOS F110 or equivalent skills.)

CIOS F214

IT Troubleshooting Skills 3.0 CR

This course uses practical real-world scenarios to develop the ability to effectively troubleshoot both software and hardware. The course teaches students how to develop a strategy to troubleshoot complicated hardware settings and configurations, operating system settings, and systems containing many different peripherals. This is an advanced technical class that assumes solid computer skills in both hardware and software. (Prerequisites: CIOS F110, 210 or equivalent skills, or permission of the instructor.)

CIOS F216

IT Certification II:
Switching Basics and Intermediate Routing 4.0 CR

This course teaches student the skills and knowledge necessary to implement advanced IP addressing techniques, intermediate routing protocols, and how to configure and integrate LAN switches into hierarchical internetworks. Course topics include: Variable Length Subnet Masks (VLSM), RIPv2, OSPF, EIGRP, switch configuration, Virtual LANs (VLANs), Spanning Tree Protocol (STP), and VLAN Trunking Protocol (VTP). (Prerequisite: CIOS 249 or permission of the instructor.)

CIOS F217

IT Certification III:
WAN Technologies 3.0 CR

This course teaches students the skills and knowledge necessary to implement advanced IP addressing techniques such as Network Address Translation (NAT), Port Address Translation (PAT) and Dynamic Host Configuration Protocol (DHCP). The course covers WAN technology and terminology, Leased Line technology, PPP, DDR, ISDN, Frame Relay, and network management. (Prerequisite: CIOS 250 or permission of the instructor.)

CIOS F233

Desktop Publishing :
Adobe InDesign CS 3.0 CR

This course focuses on graphic design for layout using Adobe InDesign. Students will learn how to integrate type and graphics to produce printed material; such as flyers and newsletters. (Recommended: CIOS 150 or equivalent computer literacy.)

CIOS F240

Microcomputer Databases:
Microsoft Access 2007 3.0 CR

This course is a comprehensive introduction to Microsoft Access 2007. Students will learn basic database concepts; such as, how to maintain and update databases; how to build and use queries and forms; and how to build reports. The course will also introduce students to database design. (Recommended: CIOS F150; and CIOS F130 or 135 or equivalent skills.)

CIOS F244

Introduction to Network Support and Administration 3.0 CR

This course teaches students the features and functions of networking components, and the knowledge and skills needed to install, configure and troubleshoot basic networking hardware, protocols and services. Students will develop technical ability in the areas of media and topologies, protocols and standards, network implementation, and basic network administration and support. This course helps students prepare to take the CompTIA Network+ certification exam. (Recommended: CIOS F110 and 210; or equivalent skills.)

CIOS F245

Networking and LAN Infrastructure Basics 4.0 CR

This course teaches students how to design and implement networks in small- to medium-sized environments. The course focuses on network terminology and protocols, local-area networks (LANs), wide-area networks (WANs), Open Systems Interconnection (OSI) model, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards. This course is the first of four courses leading to the Cisco Certified Networking Associate (CCNA) certification. (Recommended: CIOS 110 and 210; or equivalent skills.)

CIOS F247

Advanced Networking and Communications:
Implementing and Managing Network Services 4.0 CR

This course teaches students how to implement and manage core networking services common to any network environment. Topics include: DHCP, DNS, remote access, file and print, Web, update and patch management, security and network management services. Students will develop a conceptual understanding of each network service and learn how to setup, configure, and maintain each service. (Recommended: CIOS 212, CIOS 244 or 245)

CIOS F249

Routers and Routing Basics 4.0 CR

This course focuses on initial router configuration, Cisco IOS Software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Students will develop skills on how to configure a router, manage Cisco IOS Software, configure routing protocols, and create access lists to control traffic permitted through the router. This course is the second of four courses leading to the Cisco Certified Networking Associate (CCNA) certification.

CIOS F255

Microcomputer Graphic:
Adobe Photoshop CS 3.0 CR

This course teaches students how to use Photoshop's multitude of tools to create sophisticated graphics for a variety of intended uses; edit or enhance existing graphic images; and explain why different file formats work better for different purposes. (Recommended: CIOS F150 or equivalent computer literacy.)

CIOS F256

Internet Authoring and Design:
Macromedia Dreamweaver and Fireworks 3.0 CR

This course teaches students the fundamental skills and knowledge necessary to design, create, and manage websites using Dreamweaver and Fireworks. Students will learn how to use Dreamweaver to plan and setup sites; layout web pages; format page content; insert images, movies, sound and other media; create forms; and validate and test web pages. Student will also learn basic image editing in Fireworks and how to use Fireworks to create buttons, navigation bars, pop-up menus and image maps. (Recommended: CIOS 146 and CIOS 150 or equivalent computer literacy including saving/retrieving files, use of office applications, Internet and email.)

CIOS F258

Digital Photography 3.0 CR

This course provides students with an introduction to the world of digital photography. The course covers basic photography and features unique to digital cameras. The course includes intensive hands-on practice with digital cameras. Students will gain experience in digitizing photos acquired from non-digital sources. They will optimize images for print or for electronic distribution, and will learn how to color correct and enhance images using Photoshop software.

CIOS F271

Web Databases and Programming 3.0 CR

This course teaches students how to develop web applications to automate websites, create and access web databases, provide tools for users to modify parts of their own website, show dynamic data, create and access files on the fly, and reduce repetitive maintenance. Course topics include CSS, SSI, DHTML, SQL, PHP and other web technologies. (Prerequisite: CIOS F256 or equivalent skills or permission of the instructor.)

CIOS F276

Independent Project 3.0 CR

With the guidance of the course instructor students will develop, implement, and document an IT related internship or independent project.