

COMPUTER INFORMATION TECH (CIT)

CIT 101 PC MGMT & MAINTENANCE	5 Credit Hours
Introductory course on PC management, maintenance and troubleshooting. Topics covered include operating systems and OS architecture, software/hardware relationships. (4 lecture, 1 lab)	
CIT 102 NETWORK MGMT MAINT & ADMIN	4 Credit Hours
This is an introductory course on networking technologies. Subjects covered are local area networks, wide area networks, the OSI Model, protocols, topologies, transmission media and security. Included in this course are all the elements required for the Network+ certification. (4 lecture)	
Prerequisite(s): CS 101 and CIT 101	
CIT 105 INTRODUCTION TO NETWORKS	5 Credit Hours
The first in the series of four courses required to prepare the student for the Cisco CCNA certification. Topics covered include the OSI model, the TCP/IP model, IP addressing, subnetting, data encapsulation, basic network design and troubleshooting. (3 lecture, 2 lab)	
Pre/Corequisite(s): MATH 111 or MATH 124 or MATH 125 or MATH 126	
CIT 106 ROUTING & SWITCHING ESSENTIALS	5 Credit Hours
The second course in the CCNA curriculum series. It focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless local area networks (WLAN) and security concepts. In addition to learning key switching and routing concepts, learners will be able to perform basic network configuration and troubleshooting, identify and mitigate LAN security threats and configure and secure a basic WLAN. (2 lecture, 3 lab)	
Prerequisite(s): CIT 105	
CIT 111 WINDOWS OPERATING SYS (MCP#1)	3 Credit Hours
The first in the series of three required to prepare the student for the Microsoft certification. Topics covered in this semester include all aspects of the Windows OS including OS architecture, OS Administration of Resources, hardware devices/drivers & the OS, optimizing OS performance and reliability, OS security and troubleshooting. (2 lecture, 1 lab)	
Pre/Corequisite(s): CS 101	
CIT 112 SERVER CONFIG & ADMIN(MCP#2)	3 Credit Hours
The second in the series of three courses required to prepare the student for the Microsoft certification. Topics include all aspects of the Windows Server, Network access to server resources; Network server hardware devices and drivers; server performance, reliability and availability; Windows network connections; security and server troubleshooting. (2 lecture, 1 lab)	
Prerequisite(s): CIT 111	
CIT 114 WINDOWS OPERATING SYSTEMS	3 Credit Hours
The second in the series of three courses required to prepare the student for the Microsoft MCP certification. Topics include all aspects of a Windows workstation OS and a Windows Server OS. (2 lecture, 1 lab)	
CIT 130 PRIN OF INFORMATION SYSTEMS	3 Credit Hours
Introduction to basic computer information systems principles and terminology, offering a broad survey of the discipline and illustration of the importance of determining information system requirements. It will examine the importance of information systems in networked and global business. Topics include hardware and software selection criteria, scheduling, conversion planning, legal and ethical issues, and security. (3 lecture)	
CIT 140 ELECTRICITY/DIG ELCTRNC S FUND	2 Credit Hours
Study of theory and laboratory experiments in basic and advanced direct current circuits as well as networks. Concepts covered include voltage, current, resistance, conductance and power. Topics studied are Ohms Law, series circuits, parallel circuits, complex circuits and network theorems. (2 lecture)	
Corequisite(s): CIT 141	
Pre/Corequisite(s): MATH 111 or MATH 124 or MATH 126 or MATH 128	
CIT 141 ELECTRC/DIG ELCTRNC S FUND LAB	1 Credit Hour
Application of theory and laboratory experiments in basic and advanced direct current circuits as well as networks. Applied concepts from CIT 140 include voltage, current, resistance, conductance and power. Topics studied are: Ohms Law, series circuits, parallel circuits, complex circuits and network theorems. (1 lab)	
Corequisite(s): CIT 140	
Pre/Corequisite(s): MATH 111 or MATH 124 or MATH 126 or MATH 128	
CIT 205 ENTERPRISE NETWORKS & SECURITY	4 Credit Hours
This is the third course in the CCNA curriculum series. It focuses on architecture and considerations related to designing, securing, operating and troubleshooting enterprise networks. (2 lecture, 2 lab)	
Prerequisite(s): CIT 106	
CIT 206 CONNECTING NETWORKS	4 Credit Hours
The last in the series of four courses required to prepare the student for the Cisco CCNA certification. Topics covered include wide-area network (WAN) technologies and network services for converged applications, data link protocols, and virtual private network (VPN) technologies. (2 lecture, 2 lab)	
Prerequisite(s): CIT 205	

CIT 211 NETWORK INFRASTRUCTURE (MCP)	3 Credit Hours
Course required to prepare the student for Microsoft Certification. Topics covered include DNS, DHCP, Remote access, network protocols, WINS, IP routing, NAT, and troubleshooting. (2 lecture, 1 lab)	
Prerequisite(s): CIT 111 or CIT 114	
CIT 240 INTRODUCTION TO LINUX	3 Credit Hours
Students learn the basics of how to install, configure, and use the Linux operating system; learn the commands and graphical interfaces; and configuration and troubleshooting techniques. (2 lecture, 1 lab)	
Prerequisite(s): CIT 114	
CIT 260 CAPSTONE PROJECT	3 Credit Hours
Final capstone project for the CIT degree. Designed to give the student supervised experience in real world information technology design and management. Student will undertake a project that will encompass all the different subject areas covered in the CIT program. Student will sit for an industry certification exam. (2 lecture, 1 lab)	
Pre/Corequisite(s): CIT 206 and CIT 211 and CIT 240	
CIT 260L CAPSTONE PROJECT LAB	1 Credit Hour
Students will sit for at least one of the following IT industry certifications: Cisco CCNA, Microsoft MCP, CompTIA A+, Linux+, Server+, or Network+.	
Students must pass the certification to pass the class. (1 lab)	
Pre/Corequisite(s): CIT 260	
CIT 280 PRACT COMPUTER/NETWORKING APPL	1 Credit Hour
This course is designed to give the students supervised experience in real work computer/networking applications. The student will work at the school a minimum of 5 hours per week. The student will work as requested in computer labs, faculty/staff offices as well as with the university network administrator in a variety of computer related responsibilities. (1 lab)	
Pre/Corequisite(s): CS 101 and CIT 101	
CIT 293 COOPERATIVE WORK EXPERIENCE	1-8 Credit Hours
CIT 297 SPECIAL TOPICS	1-3 Credit Hours
(1-3 lecture)	
CIT 299 INDEPENDENT STUDY	1-3 Credit Hours
(1-3 lecture)	
CIT 305 ADVANCED ROUTING	5 Credit Hours
This course is required to prepare the student for a career in networking and the Cisco CCNP certification. Topics covered include advanced network design and addressing, advanced routing protocol function and configuration, and route customization. (4 lecture, 1 lab)	
Prerequisite(s): CIT 205	
CIT 306 SECURE CONVERGED WANS(CISCO 6)	5 Credit Hours
This course is the second in a series of four required to prepare the student for a career in networking and the Cisco CCNP certification. Topics include remote network connectivity requirements, teleworker connectivity, IPSec VPNs, Frame Mode MPLS, Cisco device hardening, and Cisco IOS threat defense features. (4 lecture, 1 lab)	
Prerequisite(s): CIT 206	
CIT 310 FUND OF VOICE & DATA CABLING	5 Credit Hours
This course is a hands-on lab oriented course that provides a curriculum on the physical aspects of voice and data cabling and installation. (4 lecture, 1 lab)	
CIT 320 BLDG A VIRTUAL INFRASTRUCTURE	3 Credit Hours
Introduces students to the concepts and practices of computer virtualization, especially in the context of enterprise datacenter virtualization. (2 lecture, 1 lab)	
Prerequisite(s): CIT 211 and CIT 240	
CIT 330 DIR SERV INFRASTRUCTURE (MCP)	3 Credit Hours
Course is required to prepare the student for Microsoft Certification. Topics include: Active Directory, DNS for Active Directory, network management, components of Active Directory, and troubleshooting Active Directory security.	
Prerequisite(s): CIT 211	
CIT 331 DIRECTORY SRVCS DESIGN (MCP)	3 Credit Hours
This course is required to prepare the student for Microsoft Certification. Topics include analyzing business requirements, analyzing technical requirements, directory services architecture design and service location design.	
Prerequisite(s): CIT 211	
CIT 333 MANAGING MS-SQL SERVER	3 Credit Hours
Managing MS-SQL Server will teach students to install, configure, maintain, and troubleshoot a Microsoft SQL Server. (2 lecture, 2 lab)	
Prerequisite(s): CIT 114	

CIT 340 ADVANCED LINUX NETWORKING	4 Credit Hours
Students learn how to design, configure, and maintain network services with the Linux operating system and learn advanced configuration and troubleshooting techniques. (4 lecture)	
Prerequisite(s): CIT 240	
CIT 380 PRACTICUM SYSTEM ADMIN	3 Credit Hours
Hands-on operation and maintenance of a computer network, communicating with network users, troubleshooting problems, and documenting network changes. (Prerequisites: Grade of B or better in CIT 111 and CIT 112; grade of A in CIT 211; instructor permission) (1 lecture, 2 lab)	
Prerequisite(s): CIT 111 and CIT 112 and CIT 211	
CIT 393 COOPERATIVE WORK EXPERIENCE	1-12 Credit Hours
(1-12 lecture)	
CIT 397 SPECIAL TOPICS	1-6 Credit Hours
(1-6 lecture)	
CIT 399 INDEPENDENT STUDY	1-6 Credit Hours
(1-6 lecture)	
CIT 405 MULTI-LAYER SWITCHED NETWORKS	5 Credit Hours
This course is required to prepare the student for a career in networking and the Cisco CCNP certification. Topics covered include LAN media, advanced switch configuration, VLAN setup, and redundancy configurations. (4 lecture, 1 lab)	
Prerequisite(s): CIT 205	
CIT 406 ADV NETWORK TROUBLESHOOTING	5 Credit Hours
This course is the first in a series of four required to prepare the student for a career in networking and the Cisco CCNP certification. Topics include network maintenance tasks, troubleshooting models, troubleshooting tools, and troubleshooting of specific network technologies. (4 lecture, 1 lab)	
Prerequisite(s): CIT 305 and CIT 405	
CIT 410 AUTOMATING SYSTEM ADMIN	3 Credit Hours
Students will learn how to use modern, cross-platform scripting language to automate complex and repetitive systems administrative tasks. (2 lecture, 2 lab)	
Pre/Corequisite(s): CIT 114 and CIT 240	
CIT 430 NETWORK SECURITY DESIGN (MCP)	3 Credit Hours
This course is required to prepare the student for Microsoft Certification. Topics include analyzing business and technical requirements for network security, network security design, security between networks and communication channel security.	
Prerequisite(s): CIT 211	
CIT 431 NETWORK INFRASTRUC DSGN (MCP)	3 Credit Hours
This course is required to prepare the student for Microsoft certification. Topics include analyzing business and technical requirements for network infrastructure design, Internet connectivity design, WAN infrastructure design, and network management and implementation design.	
Prerequisite(s): CIT 211	
CIT 460 INTERDISCIPLINARY PROJECT	3 Credit Hours
An investigation of an actual experimental situation; may involve the design, construction, and testing of an experimental apparatus. Students will be assigned to a multiple-disciplinary project team. (3 lecture)	
Prerequisite(s): STEM 420	