

COMPUTER INFORMATION SYSTEMS (CIS)

CIS 128 Microcomputer Hardware I (3 credits)

Students learn the functionality of hardware and software components as well as suggested best practices in maintenance and safety issues. The students, through hands-on activities and labs, will learn to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, this course helps students prepare for CompTIA's A+ certification.

CIS 129 Microcomputer Hardware II (3 credits)

practices in maintenance and safety issues. The students, through hands-on activities and labs, will learn to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, this course helps students prepare for CompTIA's A+ certification.

CIS 141 Introduction to Cybersecurity (3 credits)

This course will provide an introduction to concepts related to Cybersecurity. Students will learn safe practices which can be deployed to secure computer systems. Students will gain an understanding of different tools which can be used to defend attacks on computer systems.

CIS 164 Networking Fundamentals I (4 credits)

This course focuses on the following: network terminology and protocols, Local Area Networks (LANs), Wide Area Networks (WANs), Open System Interconnection, (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, network standards. The first of four courses leading to the Cisco Certified Network Associate (CCNA) certifications.

CIS 165 Networking Fundamentals II (4 credits)

This course focuses on the following: initial router configuration, Cisco IOS software management, routing protocol configuration, TCP/IP, and Access control lists (ACLs). Students will develop skills in configuring a router, managing Cisco IOS Software, configuring routing protocols, and creating access lists that control access to a router. The second of four courses leading to the Cisco Certified Network Associate (CCNA) certification.

Prerequisite/s: CIS 164

CIS 167 Enterprise Networking, Security, & Automation (4 credits)

This third course in the CCNA curriculum describes the architectures and considerations related to designing, securing, operating, and troubleshooting enterprise networks. This course covers wide area network (WAN) technologies and quality of service (QoS) mechanisms used for secure remote access along with the introduction of software-defined networking, virtualization, and automation concepts that support the digitalization of networks. Students gain skills to configure and troubleshoot enterprise networks, and learn to identify and protect against cybersecurity threats. They are introduced to network management tools and learn key concepts of software-defined networking, including controller-based architectures and how application programming interfaces (APIs) enable network automation.

Prerequisite/s: CIS 164, and CIS 165

CIS 181 Creating Web Pages (3 credits)

Students create web sites using a current version of a graphical user interface (GUI) web authoring tool.

CIS 185 Introduction to Programming with Python (3 credits)

This course introduces core programming basics including data types, control structures, algorithm development, and program design with functions via the python programming language. The course discusses the fundamental principles of Object-Oriented Programming, as well as in depth data and information processing techniques. Students will solve problems, explore real-world software development challenges, and create practical and contemporary applications.

CIS 212 Operating Systems Client (3 credits)

The course helps learners to gain the knowledge and skills to install, configure, customize, optimize, and troubleshoot the Microsoft Windows operating system in a stand-alone and network environment.

CIS 215 Implementing a Server Environment (3 credits)

This course introduces the learner to the Microsoft Windows Server and the networking technologies it supports. The learner will become familiar with networking and operating system concepts and the common tasks required to administer and support the Microsoft Windows operating system in a network environment.

CIS 297 Computer Information Science Internship (3 credits)

This provides the student with the opportunity to experience the world of work in conjunction with their program of study.