COMPUTERS (CIS)

CIS-100 USING THE INTERNET
1 credit hour, 1 contact hour (1 Lecture Hour Per Week)
A course which will enable students do develop those skills and confidences you will need to successfully work with the Internet. Students will learn to recognize and use key vocabulary terms commonly associated with the Internet, the physical and logical makeup of the Internet and how it runs worldwide web. Students will learn ways to connect to the Internet, create and use email accounts, and efficiently use current web browsers. Students will also learn how to effectively use search strategies utilizing popular search engines such as Yahoo, Google, and others.
Fee: $40.00

CIS-101 INTRO TO COMPUTERS & SOFTWARE
4 credit hours, 4 contact hours (4 Lecture Hours Per Week)
A survey course on computer concepts and applications associated with the current generation of computer technology. Students will study terminology as it applies to computers, networks, operating systems, and internet usage. This course includes a hand-on component where students will work with current productivity software such as Microsoft's Word, Excel and Access within the Windows Operating system.
Fee: $40.00

CIS-112 CISCO I
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This course 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 introducted to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches and implement IP addressing schemes following security best practices. This is the first course to prepare students for the CCNA certification exam.
Requisite(s): Students must successfully complete CIS-101 or be granted permission by instructor
Fee: $40.00

CIS-113 CISCO II
3 credit hours, 4 contact hours (2 Lecture/2 Lab Hours Per Week)
This course describes the architecture, components and operations of routers and switches in a small network. Students learn how to securely configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and configure and resolve common issues with Static and Dynamic routes, DHCP, virtual LANs and inter-VLAN routing in both IPv4 and IPv6 networks following security best practices. Students will also configure network redundancy and WLANs following security best practices. This is the second course that will prepare students for a CCNA certification.
Requisite(s): Students must successfully complete CIS 112
Fee: $40.00

CIS-114 CISCO III
3 credit hours, 4 contact hours (2 Lecture/2 Lab Hours Per Week)
This course provides a comprehensive, theoretical and practical approach to learning the technologies and protocols needed to design and implement an enterprise network. Students will work with routers and switches using OSPF in point-to-point and multiaccess networks. Mitigate threats and enhance network security using access control lists and secureity best practices. Understand virtualization, SDN and APIs and configuration management tools enable network automation. This is the third course that will prepare students for a CCNA certification.
Requisite(s): Students must successfully complete CIS-113
Fee: $40.00

CIS-117 VISUAL BASIC PROGRAMMING
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This course will introduce the student to the fundamental concepts and structure objectorientated, event driven programming using Visual Basic computer language as used on microcomputers. Topics such as algorithm writing, program logic, program development and program execution will be covered. This course will improve a student's critical thinking and logical sequencingskills.
Requisite(s): Must complete CIS-101
Fee: $40.00

CIS-121 COMPUTER SCIENCE I
4 credit hours, 4 contact hours (4 Lecture Hours Per Week)
Introduction to programming and computer science through lab and lecture. Simple and structured data types and program control structures. Problem analysis, algorithm design, and program documentation using a high-level language.
Requisite(s): TAKE MATH-151;
Fee: $40.00

CIS-122 COMPUTER SCIENCE II
4 credit hours, 4 contact hours (4 Lecture Hours Per Week)
Intermediate object-oriented programming: inheritance, abstract classes, interfaces and exception handling. Inroduction to algorithms and data structures: recursion, searching, sorting, linked lists, stacks, queues, basics of trees and tree traversal algorithms, natural language processing and machine learning.
Requisite(s): TAKE CIS-121;
Fee: $40.00

CIS-132 PROGRAMMING IN JAVA
4 credit hours, 4 contact hours (4 Lecture Hours Per Week)
This is an introductory programming course using hte Java programming language. Students will learn programming logic and design using an object-oriented language and the core syntax of the Java language. Concentrating on good programming practices writing small computer programs, students will gain a solid foundation to apply to further Java studies.
Requisite(s): Must successfully complete CIS-101
Fee: $40.00

CIS-151 ETHICAL HACKING I
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This course is the first of two that cover the Certified Ethical Hacker (CEH) exam objectives. This course will focus on basic networking concepts, ethical hacking concepts and methodologies, and attack vectors and countermeasures. Students will be well grounded in the principles of protecting computer systems and networks.
Requisite(s): TAKE CIS-101;
Fee: $40.00

CIS-152 ETHICAL HACKING II
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This is the second course in a sequence that prepares students for the Certified Ethical Hacker (CEH) exam. It continues to focus on the tools and techniques used by ethical hackers. This course also examines the legal framework surrounding "computer hacking," intrusion detection, and penetration testing. Malware threats, packet sniffing, and social networking with also be discussed.
Requisite(s): TAKE CIS-151;
Fee: $40.00

CIS-161 CYBERSECURITY OPERATIONS
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
Cybersecurity Operations (CyberOps) prepares candidates to begin a career working with associate-level cybersecurity analysts within a Security Operations Center SOCs. The course focuses on how to monitor, detect and respond to cybersecurity threats. Plus, covers cryptography, host-based security analysis, security monitoring, computer forensics, attack methods and incident reporting and handling.
Requisite(s): TAKE CIS-101;
Fee: $40.00

CIS-162 INTRODUCTION TO COMPUTER FORENSICS
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
Computer forensics is to identify, preserve, recover, analyze from computers and detail media is a safe and secure matter to identify a computer attach or cybercrime. This course will introduce students to the forensics investigation process, gather and backup computer information for forensic analysis and avoid anti-forensics techniques.
Requisite(s): Student will successsfully complete CIS-152.
Fee: $40.00

CIS-165 HYBRID SERVER CORE
3 credit hours, 4 contact hours (2 Lecture/2 Lab Hours Per Week)
This course provides preparation for a Microsoft Windows Server certification exam towards MCSA AZ-800 certification. Students will be introduced to server and networking foundational concepts that bridge the gap as students are introduced to on-premise Windows Server 2022 management and Azure Cloud integration in a hybrid environment. This course provides for the installation, practice, and working with the Microsoft Server operating system. Students will study and prepare for certification topics such as: planning for server deployment, the ability to work with PowerShell commands, monitoring and maintaining servers, working with server roles, working with server storage and file systems, and server virtualization.
Requisite(s): Students must successfully complete CIS-240.
Fee: $25.00

CIS-172 LINUX OPERATING SYSTEMS
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This course provides the skills and knowledge necessary to install, configure, and administer Linux desktop operating systems. This course introduces students to the basic skills used by all Linux distributions. Specifically, the course covers the objectives outlined by CompTIA for its Linux+ exam and certification.
Requisite(s): Must complete CIS-101
Fee: $40.00

CIS-200 CONFIGURING WINDOWS DESKTOPS
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This course covers installing and upgrading to Windows 8, configuring hardware and applications, configuring network connectivity, configuring access to resources, configuring remote access, monitoring and mainataining windows clients, configuring backup and recovery options. This course covers the MCSA 70-687 exam objectives. *3 credit hours/4 billed contact hours*
Requisite(s): Must complete CIS-243
Fee: $40.00

CIS-220 COMPUTER TECHNICIAN ESSENTIALS
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
The course will give students foundational knowledge of PC hardware, its maintenance, and repair. Students will learn to use, install, and configure current PC Operating systems and learn the fundamental principles of computer networks. In addition, this course will assist the student in preparing for the A+ Certification tests.
Requisite(s): Must complete CIS-101
Fee: $40.00

CIS-221 DATA STRUCTURES
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
Advanced data structures, including lists, trees, sets and graphs. Analysis of algorithms. Emphasis on abstract data types, their representations and role as models in the development of computer algorithms.
Requisite(s): TAKE CIS-122;
Fee: $40.00

CIS-224 COMPUTER REPAIR ESSENTIALS
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This course is a continuation of EDP 220 computer Techncian Essentials. Students will learn more advanced skills for installing, configuring, supporting and troubleshooting computer hardware and software. Computer networks and security will be discussed as well as customer service skills. In addition, this course will assist the student in preparing for the A+ Certification tests.
Requisite(s): Must complete CIS 101
Fee: $40.00

CIS-240 INTRO TO NETWORKING
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This course introduces the student to Local Area Networks (LAN's) and Wide Area Networks (WAN's) concepts and topologies, as well as networking hardware, software, and protocols along with the skills necessary to succeed in the dynmaic field of networking. The emphasis in this course will be on the NET+ certification objectives.
Requisite(s): Must complete CIS-101
Fee: $40.00

CIS-241 INSTALL & CONFIGURE A WINDOWS NETWORK
3 credit hours, 4 contact hours (2 Lecture/2 Lab Hours Per Week)
This course will provide students with fundamentals skills to install and configure a Windows based server. Students will learn (through hands-on instruction) various ways to deploy a window server and configure server components including: storage, server roles, hyper-v, core services, and group policies. The course will also help prepare the student for the latest Microsoft certification exam. *3 credit hours/4 billed contact hours*
Requisite(s): Must complete CIS-101 Must take with: CIS-240
Fee: $40.00

CIS-243 ADMINISTRATING A WINDOWS SERVER
3 credit hours, 4 contact hours (2 Lecture/2 Lab Hours Per Week)
This course will provide hands-on instruction to demonstrate the ability to implement,administer, and troubleshoot information systems using Microsoft Windows Server infrastructure in an enterprise environment. This course will primarily cover the administration tasks necessary to maintain a Windows Server 2012 infrastructure, such as configuring aqnd troubleshooting name resoulution, user and group management with Active Directory Domain Services (AD DS) and Group Policy, implementing Remote Access solutions such as DirectAccess, VPNs and Web Application Proxy, implementing Network Policies and Network Access Protection, Data Security, deployment and maintenance of server images, as well as update management and monitoring of Windows Server 2012 environments. The course will also help prepare the student for the latest Microsoft certification exam. *3 credit hours/4 billed contact hours*
Requisite(s): Must complete CIS-241
Fee: $40.00

CIS-244 ADVANCED MANAGEMENT OF A WINDOWS,NETWORK
3 credit hours, 4 contact hours (2 Lecture/2 Lab Hours Per Week)
This course will provide advanced instructions that will provide knowledge and ability to administer, support, and troubleshoot information systems that incorporate Microsoft Windows servers and clients. This course will also provide skills necessary to pass current Microsoft certificiation exam. *3 credit hours/4 billed contact hours*
Requisite(s): Must complete CIS-243
Fee: $40.00

CIS-245 NETWORK SECURITY
3 credit hours, 5 contact hours (1 Lecture/4 Lab Hours Per Week)
This course will give students fundamental knowledge and skills in system and computer network security. Students will learn about security threats and risks, and how to defend against them. Other topics covered will include access control, assessments and audits, cryptography, and organizational security. The course will prepare the student to pass the CompTIA Security + Certification exam.
Requisite(s): Must complete CIS-240
Fee: $40.00

CIS-248 COMPUTER NETWORKING CAPSTONE
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This course serves as the capstone course for all computer networking students and will integrate all of the networking skills acquired throughout the computer networking degree program. In this course, students will design, develop and implement a network design in either server infrastructure or router and switch infrastructure. Students will also prepare of an industry certification exam.
Requisite(s): Must complete CIS-114 and CIS-241 Co-requisite: CIS-244
Fee: $40.00

CIS-265 HYBRID SERVER ADVANCE
3 credit hours, 4 contact hours (2 Lecture/2 Lab Hours Per Week)
Building on the foundational concepts introduced in CIS 165 Hybrid Server I, this advanced course dives deeper into high-level server management topics. secure Windows servers, implement disaster recovery, migrate servers and workloads, manage performance, and monitor and troubleshoot Windows server environments. This course provides preparation for Microsoft Server certification exams towards MCSA AZ-801 certification.
Requisite(s): Students must successfully complete CIS-165.
Fee: $25.00

CIS-270 PC OPERATING SYSTEMS
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This course will survey the current operating systems (OS) being used. The course will cover topics such as: operating system theory, OS interfaces, installation and configuration, file structures, troubleshooting, and networking. The CompTIA certification exam objectives will be emphasized in the course.
Requisite(s): Must complete CIS-101
Fee: $40.00

CIS-272 LINUX OPERATING SYSTEM ADMINISTRATION
3 credit hours, 3 contact hours (3 Lecture Hours Per Week)
This is a continuation of CIS 172 in which students will further master Linux installation, configuring and maintenance. Students will perform advance system administration, storage and file management and advance configuration networking and security. The course will follow LPIC-2 and CompTIA Linux+ Certifications Objectives.
Requisite(s): TAKE CIS-172;
Fee: $40.00