

## Computer Course Outlines

**IT209 CISCO NETWORKING (4.0 credits/60 clock hours)** This course offers an overview of networking with Cisco hardware. Topics include: the OSI model, TCP/IP protocols, Router and IOS basics, Router configuration, network services, access lists, and switch basics and configuration.  
Prerequisite: Networking Essentials

**IT230 DATA STRUCTURE AND ALGORITHMS (4.0 credits/60 clock hours)** Using programming languages such as Java and C++, students will construct and analyze various data structures and abstract data types including lists, stacks, queues, and trees. Students will implement various sorting, searching, and hashing algorithms. Prerequisite: Intermediate Programming

**IT219 ETHICAL HACKING AND DEFENSE (4.0 credits/60 clock hours)** This course prepares a student for network defense. Students will learn about network and computer attacks, foot printing, social engineering, port scanning, operating systems and vulnerabilities, and cryptography. The student will learn methods to defend against popular methods of hacking. Prerequisites: Networking Essentials

**CP129 INTRODUCTION TO SQL DATABASES (4.0 credits/60 clock hours)** This course will cover beginning and intermediate database topics. The student will learn what a database is and how it is used in business. The student will also learn how to design and build a database, tables, reports, queries and forms using both an office application and using the SQL language. Prerequisite: None

**IT206 MICROSOFT SERVER OPERATING SYSTEMS (4.0 credits/60 clock hours)** This course in server operating systems will cover topics essential to the installation, configuration, and administration of a current Microsoft Windows server operating system. Prerequisite: Networking Essentials.

**CP288 OFFICE COMPUTER NETWORKING (5.0 credits/60 clock hours)** This course covers material pertaining to microcomputer systems and networks. The emphasis is on how computers are networked together and how to design, use and troubleshoot networks. Prerequisite: None

**IT228 PYTHON PROGRAMMING (4.0 credits/60 clock hours)** In this course students will learn the programming fundamentals of Python. Students will learn write scripts in both languages and execute them on both Windows and Linux operating systems.  
Prerequisite: Introduction to Programming & Logic.

**CP134 WEB SITE DESIGN (4.0 credits/60 clock hours)** This course introduces Website design skills and techniques using HTML resources, Adobe Dreamweaver and Web graphics editing software (Adobe Photoshop). Website planning, proper color selection, and content creation will be covered. Students will learn the basic techniques of manually creating Websites using Dreamweaver as well as using HTML/CSS programming code. Students will also learn to create and edit graphics, images and animation for the Web. Content Management Systems (CMS) based Website development will also be introduced. This course will provide the basic fundamentals to various types of Web development techniques and associated graphics, enabling students to create, modify and enhance commercially viable Web pages. Prerequisite: None.