

## Computer Science

### COMP 110 (0715) Computer Concepts and Applications

Reading Placement Test Level: Reading for Academic Success\*

Credit Hours: 3

Prerequisite: None, adequate keyboarding skill is recommended

An introduction to the study of computer hardware and use of software including operating systems, Internet browser, word processing, spreadsheet, database, and presentation programs. Students need basic keyboarding skills to enroll in this course.

### COMP 115 (0733) Spreadsheet Concepts and Applications

Reading Placement Test Level: Reading for Academic Success\*

Prerequisite: Keyboarding Skills

Credit Hours: 3

This course is a comprehensive hands-on course that provides users with fundamentals, both conceptual and applied, they need to use spreadsheet software. Students learn basic and advanced features of spreadsheet use and develop the tools needed to apply this technology to business application.

### COMP 120 (0717) Computer Information Systems

Reading Placement Test Level: No reading placement required

Prerequisite: Keyboarding Skills

Credit Hours: 3

An introduction to the use of computer-based information systems and communications technology in a business environment. Includes an introduction to information technology terminology, hardware, software, and data communications as well as a survey of programming languages and emerging computer technologies.

### COMP 130 (0736) Introduction to Programming

Reading Placement Test Level: Reading for Academic Success \*

Prerequisite: None

Credit Hours: 3

Introduction to the design and construction of computer programs. Covers the Program Development Cycle with emphasis on design tools and programming methods. Lays the foundation for programming courses.

### COMP 135 (5516) C++ Programming

Prerequisite: COMP 138 Visual Basic Programming

Credit Hours: 3

An introduction to C++ programming using structured programming and object oriented design.

COMP 138 (0730) Visual Basic Programming

Reading Placement Test Level: Reading for Academic Success \*

Prerequisite: Typing skills and MATH 115 College Algebra

Credit Hours: 3

Provides a structured approach to Visual Basic programming. Includes a fundamental procedure for solving problems, naming variables, developing algorithms, selection structures, repetition structures, and correcting syntax and logic errors.

COMP 143 (0732) Advanced Programming Techniques

Prerequisite: COMP 138 Visual Basic Programming

Credit Hours: 3

An intermediate programming topic using the Visual Basic language. Topics covered include Windows API, ActiveX control, ActiveX document, Object Oriented Programming, and Database Programming.

COMP 145 (0737) Pascal

Prerequisite: COMP 138 Visual Basic Programming

Credit Hours: 3

Introduction to structured programming techniques using Pascal programming language including an overview of information processing, computers, programs, programming languages, hardware, and software with emphasis on the techniques known as “structured programming.”

COMP 152 (5525) Web Page Design Technology

Prerequisite: COMP 138 Visual Basic Programming

Credit Hours: 3

This course will cover topics in designing, creating, maintaining, and troubleshooting web pages. Students will learn to create web pages using HTML, JavaScript, Java, and ActiveX.

OTEC 155 (0535) Word Processing Concepts and Applications

Prerequisite: OTEC 102 College Keyboarding

Credit Hours: 3

This course is a comprehensive hands-on course that provides users with fundamentals, both conceptual and applied, they need to use word processing software. Students learn the basics and advanced features of word processing use and develop the tools needed to apply this technology to business application.

COMP 172 (0720)  
Security

Fundamentals of Network

Prerequisite: Concurrent enrollment in or completion of CS 5510 Introduction to Networking

Credit Hours: 3

This course provides the fundamentals of network security. Topics covered include: general network security, communication security, infrastructure security, and basic cryptography. Students will also learn the threats of network security and implement ways to stop intrusions.

COMP 180 (5510) Introduction to Networking

Prerequisite: None

Credit Hours: 3

Concepts and components involved in networking computers for hardware and software resources sharing. Electronic mail, file sharing, and popular networking operating systems will be explored.

COMP 182 (5511) Network Administration I

Prerequisite: COMP 180 Introduction to Networking

Credit Hours: 5

This course will help the student develop the skills to administer and manage Windows networks on a daily basis. This course is in preparation for Microsoft examinations.

COMP 187 (0709) Unix/Linux Administration

Prerequisite: Concurrent enrollment in or completion of COMP 180 Introduction to Networking

Credit Hours: 3

This course provides the foundation to understanding the UNIX operating systems. This course will cover the installation, maintenance, administration, and troubleshooting a working UNIX system. Students will get a hands-on experience in working with UNIX operating systems using Linux. This course will also cover some basic shell programming necessary to manage and administer a UNIX system.

COMP 188 (0719) Cisco Internetworking

Prerequisite: COMP 180 Introduction to Networking

Credit Hours: 3

This course will provide the knowledge necessary to setup, manage, troubleshoot, administer, and secure a Cisco router. This course will help prepare students for the Cisco Certified Network Associate (CCNA) certification. Topics covered include: switching, OSI reference model, routed and routing protocols, LAB technologies, and Cisco IOS.

COMP 192 (0729) Database Concepts and Applications

Reading Placement Test Level : Reading for Academic Success \*

Prerequisite: None

Credit Hours: 3

This course is a comprehensive hands-on course that provides users with fundamentals, both conceptual and applied, they need to use database software. Students will learn basic and advanced features of database use and develop the tools needed to apply this technology to business application.

COMP 198 (0718) PC Troubleshooting

Reading Placement: Test Level: Reading Essentials \*

Prerequisite: None

Credit Hours: 3

PC Troubleshooting is designed to expand the students' skill and proficiency in identifying the major motherboard form factors, installation of hardware, i.e. hard drives, memory, floppy disks, CD ROMs, and other peripherals. The student will understand how the system communicates information between the components and how to troubleshoot and solve PC problems, i.e.: system conflicts, hardware conflicts, software conflicts, and other issues concerning a system's failure to operate successfully. The student will have the necessary skills to purchase, maintain, and upgrade a computer system. PC Troubleshooting is a preparation course for A+ certification.

COMP 199 (5521) PC Troubleshooting Lab

Prerequisite: COMP 198 PC Troubleshooting or permission of instructor

Credit Hours: 2

This course is designed to expand the concepts of computer hardware installation and repair. Skills to diagnose and repair PC problems in both hardware and software will be explored.

COMP 201 (5512) Network Administration II

Prerequisite: COMP 180 Network Administration I

Credit Hours: 5

This course will help the student develop the skills to install and manage Microsoft Exchange Server and Microsoft Internet Security and Acceleration Server. The course is in preparation for Microsoft examinations.

COMP 202 (5520) Network Administration III

Prerequisite: COMP 201 Network Administration II

Credit Hours: 5

This course will help the student develop the skills to administer and manage Active Directory. This course will also cover the security aspects of Windows networking operating systems. This course is in preparation for Microsoft examinations.

COMP 205 (5519) Special Topics in Computing

Prerequisite: Special permission of instructor

Credit Hours: 3

Covers selected topics in Networking and Computer Science. A specific programming language, application, networking, or programming topic will be listed as a subtitle.

COMP 208 (0721) Database Programming

Reading Placement Test Level: No reading placement required

Prerequisite: COMP 135 C++ Programming

Credit Hours: 3

This course will provide the foundation to writing a database-aware application. Students will learn the basic database systems and how to write a software application to access the database. Students will write, primarily, web-based application.

COMP 210 (0724) Internet Programming

Prerequisite: COMP 135 C++ Programming

Credit Hours: 3

This course will provide a basic understanding on how to create a web-based application. Students will learn VBScript, JavaScript, Applet, Servlet, ASP, PHP, Perl, and XML.

COMP 212 (5508) Principles of Software Design

Prerequisite: COMP 135 C++ Programming

Credit Hours: 3

Intermediate programming techniques using the C++ language. Topics covered include sorting, object oriented programming, data abstraction, algorithmic design, and basic data structure including linked lists and arrays.

COMP 214 (5509) Concepts of Computer Systems

Prerequisite: COMP 135 C++ Programming

Credit Hours: 3

An introduction of computer systems constructs, including compilers, assemblers, linking, loading, input and output, system monitors, memory organization, processor structure, and resource allocation.

COMP 216 (5518) Java Programming

Prerequisite: COMP 135 C++ Programming

Credit Hours: 3

An introduction to object oriented programming using the Java language.