# Computer Science (CS)

### CS 110 Introduction to Microcomputer Applications

3 credits | REEL

Quarter(s): S, F, W, Sp

Introduces microcomputers and software applications. Presents Windows, word processing, and electronic spreadsheets basics.

Prerequisite: Ability to use a keyboard

### CS 170 Fundamentals of Computer Programming

5 credits | ELEC Quarter(s): F, W, Sp

Offers an introduction to computer programming concepts and the development of applications. Program development, style, testing, and documentation are presented, discussed and applied using the C++ programming language. This course is a beginning course for CS majors and others, such as engineering transfer students, wishing an introduction to structured computer programming.

Prerequisites: MATH 88 or MATH 97 with a grade of C or better; or CCP 88 or CCP 97 with a grade of B or better; and knowledge of Windows is required; or instructor permission.

#### CS 175 Event-Driven Programming UWP C#

5 credits | REEL Quarter(s): Sp

Offers an introduction to designing and implementing Windows applications using C#. Covers concepts involving event-driven programming, graphical user interface design, and algorithm implementation are covered.

Prerequisites: CS 170 with a grade of C or better, or instructor permission

### CS 208 Introduction to Management Information Systems

5 credits

Quarter(s): W

Introduction to the principles, roles, and application of Management Information Systems (MIS) in business. Investigations into MIS include hands-on lab experiences and case studies. Prerequisite: BUS& 101, ENGL& 101, or instructor permission. CS 110 recommended.

## CS 270 Data Structures I 5 credits | NSCI, ELEC Quarter(s): F

Offers a detailed study of structured and object-oriented programming, including algorithms, searching and sorting, and data structures using the programming language C++.

Prerequisite: CS 170 and MATH 98 (or CCP 98 with a grade of B or better), or higher, with a grade of C or better, or instructor permission.

### CS 275 Object-Oriented Programming 5 credits | REEL

Quarter(s): W

Offers an introduction to the objectoriented programming paradigm using Java. Various object-oriented programming concepts will be discussed. Object-oriented programs will be developed and implemented. Prerequisite: CS 170 with a grade of C or better, or instructor permission.

### CS 280 Advanced Data Structures 5 credits | REEL

Quarter(s): Sp

Offers a detailed study of advanced data structures, including the analysis of algorithms and object-oriented programming using the programming language C++.

Prerequisites: CS 270 and MATH& 141 (was MATH 112), both with a grade of C or better, or instructor's permission.

#### CS 285 Programming Tools

5 credits | REEL Quarter(s): Sp

Discusses programming techniques using C and C++ including debugging tools, scripting languages, UNIX programming tools, and familiarity with Unix/Linux system programming.

Prerequisite: CS 270 with a grade of C or better, or instructor permission.

### CS 288 Cooperative Work Experience 1-15 credits

Provides work-based learning experience in a specific program of study. Individualized student outcomes are developed, focusing on behaviors that contribute to workplace success. Prerequisites: Instructor or Cooperative Education Coordinator permission Concurrent requirements: COLL 289 or BUS 294 must be taken prior to or concurrent with this course.

#### CS 299 Independent Study 1-10 credits

Offers individualized learning opportunities for knowledge or skill development. Content and expectations are established between the student and instructor, and documented in an Independent Study contract.

Prerequisites: By instructor permission only.