

I. COURSE INFORMATION

- A. Computer Science 230 C++ Programming I
- B. 3 credit hours
- C. Savitch, Walter; Kenrick Mock. *Problem Solving with C++*. 10th ed. Pearson, 2018
- D. Prerequisites: None

II. COURSE DESCRIPTION

This course introduces students to the essential concepts of ANSI standard C++ programming including I/O streams, data types, functions, flow control, arrays, structures, and classes. Emphasis is placed on software development concepts with specific applications in mathematics, business, and sciences.

III. LEARNING OUTCOMES

- A. Understand the nature of programs and the C++ programming language
- B. Understand the basic concepts of C++ programming
- C. Understand the concept of functions
- D. Understand the meaning of I/O streams
- E. Understand the concept of arrays
- F. Understand strings
- G. Understand pointers and dynamic arrays
- H. Understand the concepts of "classes"
- I. Understand the concepts of "object-oriented programming"

IV. MAJOR CONTENT AREAS

- A. Programming Terminology
- B. Code selection structure
- C. I/O streams
- D. Strings, pointers and dynamic arrays
- E. Creating classes
- F. Object-oriented programming

I. ASSIGNMENTS (may include but are not limited to)

- A. Written assignments
- B. Reading assignments
- C. Examinations
- D. Programming exercises
- E. Discussions

II. EVALUATION METHODS (may include but are not limited to)

- A. Quizzes
- B. Assignments
- C. Attendance
- D. Participation
- E. Final exam