

# COMPUTER SCIENCE (CS)

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## **CS 160: Orientation-Computer Science (4)**

This course explores the discipline and profession of computer science. It provides an overview of computer hardware architecture, the study of algorithms, software design and development, data representation and organization, ethics and the history of computing and its influences on society. The student is exposed to high-level programming languages.

May be offered online. 3 lecture, 2 lecture/lab hrs/wk

**Registration-Enforced Prerequisite:** MTH 095 or equivalent.

**Terms Typically Offered:** Fall

## **CS 161: Computer Science I (4)**

This is an introduction course to computer science. Topics covered are: Algorithms, programming concepts, programming in a structured language, and computer applications. The C++ or the Java language will be introduced. 3 lecture, 2 lecture/lab hrs/wk

**Prerequisite:** CS160 or instructor approval.

**Terms Typically Offered:** Winter

## **CS 162: Computer Science II (4)**

This course is a continuation of CS 161 and introduces the student to the use of a variety of data structures. Topics include: string operations, records, stacks, queues, trees, recursion, sorting, linked lists, searching data structures. Programs will be written either in C++ or Java. 3 lecture, 2 lecture/lab hrs/wk

**Prerequisite:** CS 161.

**Terms Typically Offered:** Spring

## **CS 205: Syst Programming Architecture (4)**

This course serves as an introduction to computer architecture, assembly language, and C language. Other topics include data representations, addressing, stacks, argument passing, arithmetic operations, decisions, modularization, and debuggers. 3 lecture, 2 lecture/lab hrs/wk

**Registration-Enforced Prerequisite:** CS 162 or instructor approval.

**Terms Typically Offered:** Spring

## **CS 260: Data Structures (4)**

This course is intended primarily for students seriously interested in computer science. Students will demonstrate the usage of using advanced data structures, including linked lists and tree structures, and advanced structure programming methods through a variety of programming projects. Course may be offered online. 3 lecture, 2 lecture/lab hrs/wk

**Registration-Enforced Prerequisite:** CS 162 and MTH 111 or higher or instructor approval.

**Terms Typically Offered:** Fall

## **CS 271: Computer Architecture (4)**

This course serves as an introduction to the functional organization and operation of digital computers. Coverage of topics includes assembly language; addressing, stacks, argument passing, arithmetic operations, decisions, macros, modularization, linkers and debuggers. 3 lecture, 2 lab hrs/wk

**Registration-Enforced Prerequisite:** CS 162 or instructor approval.

**Terms Typically Offered:** Spring