



### **III. Minor in Computer Science—21 hours**

- A. Required: CSC 115, 125, 220, 235, 260, 311.
- B. One additional upper level CSC course other than 490 or 498.
- C. Prerequisite: MAT 205.

### **IV. Minor in Computer Information Systems—21 hours**

- A. Required: CSC 115, 125, 235.
- B. Select 4: CSC 321, 360, 365, 395, 411.

All senior computer science majors must take the Major Field Test in computer science as one requirement for CSC 498 (see below).

The **ACM (Association for Computing Machinery) Student Chapter** is composed of students who are interested in today's world of computing. The club promotes an increased knowledge of the science, design, development, construction, languages, and applications of modern computing machinery. It provides a means of communication between persons interested in computing machinery and their applications.

( ) Hours Credit; F–Fall, W–Winter; S–Spring; Su–Summer

#### **105. Survey of Microcomputing Applications (3) F, S**

An introduction, for the non major/minor, to computers and their applications. Includes computer and information literacy, but the main emphasis is on competency with software through hands-on practice. Cannot be taken for credit after 115.\*

#### **115. Computer Science: Introduction & Overview (3) F, S**

Introduction exposing majors/minors to the breadth and interrelationships of courses in the field and empowering others for a continuous exploration of today's technical society. A language-independent overview of hardware and software with emphasis on problem solving and algorithm development. Cannot be taken for credit after 105 without departmental approval.\*

\*Either 105 or 115 apply to the B.S. specific core, but not both.

#### **125. Computer Science I: Programming in Java (4) S**

Prerequisite: CSC 115.

Basic concepts of problem solving, algorithm design and analysis, abstract data types, and program structures. GUI development will be introduced and the object-oriented programming paradigm will be emphasized. Students will design, implement, debug, test, and document programs for various applications.

#### **205. Computer Science II: Algorithms & Data Structures (3) F**

Prerequisites: CSC 125, MAT 205. Pre-or Corequisite: MAT 212.

A study of the complexity of algorithms and advanced data structures, including trees and graphs. Tools for analyzing the efficiency and design of algorithms, including recurrence, divide-and-conquer, dynamic programming, and greedy algorithms.

#### **220. Computer Repair and Maintenance (3) S**

Prerequisite: CSC 115.

A hands-on approach to competence in configuring, installing, diagnosing, repairing, upgrading, and maintaining microcomputers and associated technologies. The course covers both core hardware and OS technologies.

#### **235. Computer Ethics (2) S**

Major social and ethical issues in computers and the Internet, including impact of computers on society and the computer professional's code of ethics.

#### **245. FORTRAN (3) As Needed**

Prerequisite: CSC 115 and MAT 211.

Introduces the procedural programming using FORTRAN. Emphasis will be given to scientific applications.

#### **255. Programming in C (3) S**

Prerequisites: CSC 115.

Introduces the procedural programming paradigm using ANSI C.

**260. Digital Systems (3) F**

Prerequisite: CSC 125, CSC 220, and MAT 205.

Binary codes, Boolean algebra, combinational logic design, ip-

