B.S.C.S. in Computer Science

Overview

Degree Requirements

Description

The goal of the B.S.C.S. program is to give each student a thorough professional education in contemporary computer science while allowing sufficient flexibility for the student to pursue individual interests in related technical fields.

Minimum Total Credit Hours: 127

Goals/Mission Statement

The Department of Computer and Information Science has established the following educational objectives for the B.S.C.S. program: 1. Graduates demonstrate the ability to solve computing problems commensurate with their levels of professional experience. 2. Graduates demonstrate the ability to work effectively as members of teams. 3. Graduates continue to develop their professional knowledge and skills to adapt to the changes in technology and the evolving needs of society.

To accomplish these objectives, the department has defined the following program outcomes for the B.S.C.S. program. That is, the program seeks to develop the following capabilities in its students: a. An ability to apply knowledge of computing and mathematics that are appropriate to the discipline; b. An ability to analyze a problem and to identify and define the computing requirements appropriate to its solution; c. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet requirements; d. An ability to function effectively on teams to accomplish a common goal; e. An understanding of professional, ethical, legal, security, and social issues and responsibilities; f. An ability to communicate effectively with a range of audiences; g. An ability to analyze the local and global impact of computing on individuals, organizations, and society; h. Recognition of the need for, as well as an ability to engage in, continuing professional development; i. An ability to use current techniques, skills, and tools necessary for computing practice; j. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design decisions; k. An ability to apply design and development principles in the construction of software systems of varying complexity.

The goals and objectives of the B.S.C.S. program are consistent with the mission statement of The University of Mississippi.

General Education Requirements

Candidates for the B.S.C.S. degree must successfully complete the following general education requirements: 6 hours from Engl 101 and either Liba 102 or Engl 102; 3 hours of literature chosen from Engl 221-226; 8 hours of laboratory science chosen from Chem 105, 106, 115, 116 or Phys 211, 212, 221, 222 or Bisc 160, 161, 162, 163; 6 hours from Math 261 and 262; 3 hours from Spch 102 or Spch 105; 6 hours of social science chosen from anthropology, economics, political science, psychology, and sociology; 3 hours of humanities chosen from classics, English, history, modern languages (200 level and above), philosophy, religion, and Southern studies; 3 hours of fine arts chosen from courses in the history, appreciation, and criticism of art, dance, music, and theatre arts (Courses emphasizing the enhancement of skills and performance are not acceptable.); 3 additional hours of fine arts or humanities. 3 additional hours from social science, humanities, and fine arts courses as constrained above.

Course Requirements

Candidates for the B.S.C.S. degree must successfully complete the following requirements in addition to the general education requirements: 12 hours from Math 301, 302, 375, and either 263 or 319; 6 additional hours of science electives chosen from the laboratory science courses listed above or from Astr 103, 104, Chem 221, 222, Geol 103, 221, 305, 309, and biology, chemistry, or physics courses at the 300 level or above; 4 hours from El E 335, 336; 31 hours from CSci 111, 112, 211, 223, 300, 311, 387, 423, 433, 450, and 487; 15 hours of computer science electives chosen from 300 level and above or other approved electives; 15 hours of approved technical electives.

Other Academic Requirements

For specifically required computer science courses, no grade less than C can be applied to the degree requirements.