Computing Sciences, B.S.

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About

Computer science students explore a broad spectrum of computing technologies and concepts. Our courses provide a thorough foundation in the principles and practices of computing, paving the way for successful careers and ongoing graduate studies. Our students also learn skills in communication and the scientific, mathematical, and engineering principles that support the computing disciplines.

The Department of Computing Sciences seeks to provide outstanding education, to advance scholarship, and to engage in activities that benefit society as a whole, in accordance to the University mission. The Department aims to equip students with a solid foundation in computing theory, and to prepare them for lifelong independent learning and innovative thinking in a constantly changing discipline. Its faculty members strive to maintain professional currency, and to involve students and colleagues in their research investigations. These endeavors support the University mission to transmit, pursue, and discover knowledge in an atmosphere of collegiality in the university community. Supported by a liberal arts education, the Department seeks to develop the total person, sensitive to social and ethical concerns affected by the computing discipline, and committed to addressing the needs of a diverse and interconnected modern society.

Program: Computing Sciences
Type: Bachelor of Science

MAJOR (54 credits)

The ABET accredited major consists of 54 credits (18 courses) in computer science, plus additional mathematics, science and philosophy (ethics) requirements. Required courses include program design using Java and C, computer systems, analysis of algorithms, theory of computability, database principles, organization of programming languages, software engineering, computing ethics, and a senior project. Students select four computer science electives and have five free electives.

Program Notes:

- Combined BS/MS in Computer Science or Software Engineering: Five-year double degree program. See departmental website for details regarding admission, requirements, the program of study, etc.

Required Major Courses:

Item #	Title	Credits
CSC 1990	Enrichment Sem in Computing	1
CSC 1051	AlgorithMS & Data Struc I	4
CSC 1052	AlgorithMS & Data Struc II	4
CSC 1300	Discrete Structures	3
CSC 1700	Analysis of Algorithms	3
CSC 1800	Organ of Prog Languages	3
CSC 2053	Platform Based Computing	3
CSC 2300	Statistics for Computing	3
CSC 2400	Computer SysteMS I	3
CSC 2405	Computer SysteMS II	3
CSC 4170	Theory of Computation	3
CSC 4480	Principles of Database Systems	3
CSC 4700	Software Engineering	3
CSC 4790	Senior Projects	3
PHI 2180	Computer Ethics	3
MAT 1500	Calculus I	4
	MAT 1505 or CSC 3300	4
	Natural Science with Lab	8
	CSC Elective	3
	CSC Elective	3
	CSC Elective	3
	CSC Elective	3