

Computer Science Major

Computer Science Concentration

50-51 credit hours required.

The Computer Science concentration in the CS major is designed for general study of the principles and practice of computing. This concentration includes coursework in theory of computation, computer systems hardware and software, programming, algorithms, networks, and software engineering. You may choose electives in areas such as computer games, information security, artificial intelligence and robotics, and compiler design. You should consider this concentration if you want to keep your options open for employment prospects in the entire computing profession or to enter graduate school.

Required Courses:		Credits
CIS 201	Computer Science I	4
CIS 203	Computer Science II	4
CIS 300	Foundations of Computer Science (see Notes)	4
CIS 301	Theory of Computation	3
CIS 303	Algorithm Analysis and Design	3

one of the following 3

CIS 310	Operating Systems	
CIS 356	Assembly Language and Computer Architecture	

plus the following

CIS 380	Professional Practice	3
CIS 405	Software Engineering	3
CIS 410	Computer Networks	3
CIS xxx	CIS Elective (3xx or 4xx)	3
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Capstone Experience:

one of the following

CIS 480	Senior Project (see Notes)	3
CIS 490	CIS Internship (see Notes)	3

Required Collateral Courses in Mathematics:		Credits
MATH 125	Probability and Statistics I (see note below)	3
MATH 151	Calculus I	4
MATH 152	Calculus II	4

50-51

Information Systems Concentration

55 credit hours required.

The Information Systems concentration in the CS major is designed for study of computing practices appropriate to business. This concentration includes coursework in computer systems software, programming, networks, database systems, and software engineering, as well as basic courses leading to a minor in Business Administration. You should consider this concentration if you are interested in business applications or in a career in computing/networking infrastructure.

Required Courses:		Credits
CIS 201	Computer Science I	4
CIS 203	Computer Science II	4

CIS 356	Assembly Language and Computer Architecture	4
CIS 380	Professional Practice	3
CIS 405	Software Engineering	3
CIS 410	Computer Networks	3
CIS 420	DataBase Systems	3
CIS xxx	CIS Elective (3xx or 4xx)	3

Capstone Experience:

choose one of the following

CIS 480	Senior Project (see Notes)	3
CIS 490	CIS Internship (see Notes)	3

Required Collateral Courses in Mathematics:

MATH 125	Probability and Statistics I (see note below)	3
MATH 151	Calculus I	4

Required Collateral Courses in

Business Administration:

		Credits
Business Administration Minor		18
(see under Business Administration)		

Notes:

MATH 461 may be used to meet the MATH 125 requirement.

MATH 340 may be used to fulfill the CIS 300 requirement for double majors in Mathematics and Computer Science only.

No course other than CIS 201 can be taken for S/U credit and applied toward the requirements for the major in Computer Science.

A student must have a GPA of at least 2.0 in the Computer Science major requirements to register for CIS 480 or 490.

Capstone Experience

Each student completing the B.A. in Computer Science is required to engage in a capstone experience. To complete this requirement, a student prepares a formal proposal for approval by the Computer Science faculty, performs the proposed work, and presents written and oral reports to the Computer Science Department. Some students choose to complete their capstone experience while engaged in an internship.