

COMPUTING - INTERDISCIPLINARY CONCENTRATION

Acceptance to Major Requirements

Course Requirements:

Code	Title	Hours
CSCI 150	Introduction to Computing in the Liberal Arts and Sciences	4
CSCI 155	Conceptual Approaches to Computing	2
CSCI 160	Problem Solving, Programming, and Computers	4
One of the following:		4
CSCI 200	Abstraction, Data Structures, and Large Software Systems	
CSCI 210	Computer Systems	
CSCI 239	Discrete Computational Structures	

Minimum Grade for required courses: No more than one of the above courses has a grade below C

Minimum GPA for required courses: The GPA in the above courses is 2.5 or better

Other: Students will be conditionally accepted into the CSCI major if they have not yet completed all the courses needed for unconditional acceptance into the major but are currently enrolled in the courses which are lacking and they meet the other two criteria for acceptance on the courses completed thus far.

Computing Major

Students can select from two concentrations: computer science (<https://catalog.csbsju.edu/catalog/academic-departments/computer-science/computer-science-major/>) and interdisciplinary computing (p. 1). The interdisciplinary computing major concentration focuses on the intersection of computing with another area of study; students will study how computing is used in their second area of study, and the impact of this area on computer systems, computing in society, and/or the foundations of computing. It is appropriate for students interested in intersecting computing with another area, including software design in a specific field, user experience design, digital humanities, health informatics, modeling and simulation, and many more.

Data Science Major

The Computer Science Department offers a major in computer science; Computer Science also offers a major in Data Science jointly with the Mathematics Department. Students may not double major in Computer Science (either concentration) and Data Science. Information about data science (<https://catalog.csbsju.edu/catalog/academic-departments/data-science/>) major is in a separate section for that major. In addition, students may develop individualized majors which meet their particular interests. (See the section on individualizing a traditional major under Academic Regulations.)

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CSCI 150	Introduction to Computing in the Liberal Arts and Sciences	4

CSCI 155	Conceptual Approaches to Computing	2
CSCI 160	Problem Solving, Programming, and Computers	4
One of the following:		4
CSCI 200	Abstraction, Data Structures, and Large Software Systems	
CSCI 210	Computer Systems	
300-level CSCI elective		
CSCI 239	Discrete Computational Structures ¹	4
CSCI 377A	Ethical Issues in Computing	4
CSCI 373	Senior Research in Computer Science	4
Courses from pre-approved discipline ²		16
CSCI Electives		10
Total Hours		52

¹ Students who complete MATH 120 Calculus II may substitute MATH 239 Linear Algebra for CSCI 239 Discrete Computational Structures.

² Courses must be from a pre-approved discipline and part of an existing major or minor. Consult with a CSCI advisor for specific concentrations. At least 4 credits must be at the 300-level.

Four Year Plan

Course	Title	Hours
First Year		
Fall		
CSCI 150	Introduction to Computing in the Liberal Arts and Sciences	4
CSCI 155	Conceptual Approaches to Computing	2
Language 111		4
INTG 105	College Success	1
INTG 100	Learning Foundations	4
Hours		15
Spring		
CSCI 160	Problem Solving, Programming, and Computers	4
Course from Another Major/Minor		4
Cultural/Social Difference-Identity		4
Language 112		4
Hours		16
Second Year		
Fall		
One of the following:		4
CSCI 200	Abstraction, Data Structures, and Large Software Systems	
CSCI 210	Computer Systems	
CSCI 3@@ elective		
CSCI 239	Discrete Computational Structures	4
Language 211		4
Theological Explorations		4
Hours		16
Spring		
CSCI 3@@ elective		4
Course from Another Major/Minor		4
Natural World		4
Artistic Expression		4
Hours		16
Third Year		
Fall		
Course from Another Major/Minor		4
CSCI 3@@ (upper division elective)		2

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Artistic Engagement	4
Social World	4
Elective Course	2
Hours	16
Spring	
Cultural/Social Difference-Systems	4
Global Engagement	4
Experiential Engagement	4
Other study abroad coursework	4
Hours	16
Fourth Year	
Fall	
CSCI 377A Ethical Issues in Computing	4
CSCI 3@@ (upper division elective)	4
Benedictine Raven	4
Theological Integrations	4
Hours	16
Spring	
CSCI 373 Senior Research in Computer Science	4
Course from Another Major/Minor	4
INTG 300 Learning Integrations	4
Elective course	4
Hours	16
Total Hours	127