

# COMPUTER SCIENCE - INFORMATION ASSURANCE (BACHELOR OF SCIENCE)

The Computer Science major emphasizes the development of large software systems. It consists of prescriptive courses and elective courses.

Course	Title	Credits
<b>Prescriptive Courses</b>		
CS 230	Fundamentals of Computing	3
CS 231	Computer Programming I	3
CS 232	Computer Programming II	3
CS 234	Discrete Computational Structures	3
CS 304	Technical Writing for Computer Science (WI)	3
CS 310	Software Engineering I	3
CS 331	Data Structures and Algorithms	3
CS 333	Computer Organization and Architecture	3
CS 350	Fundamentals of Computer Operating Systems	3
CS 450	Computer Networking	3
CS 462	Ethics and Legal Issues (WI)	3
CS 488	Database Systems	3
CS 491	Software Engineering II	3
<b>Information Assurance</b>		
CS 307	Management of Information Security and Forensics	3
CS 308	Embedded and Control Systems Security	3
CS 470	Computer Security	3
Select one of the following:		
CS 412	Disaster Response & Recovery	3
CS 425	Web Application Development Using Web Services	3
CS 461	Critical Infrastructure	3

Courses in the major may not be taken until all prerequisites are completed with a grade of "C" or better.

In addition to the major courses, support courses required are:

Course	Title	Credits
MS 125	Calculus I	4
MS 126	Calculus II	4
MS 302	Applied Probability and Statistics	3
MS 352	Linear Algebra	3

*Note:* This schedule reflects the computer science program beginning with MS 125 Calculus I (4). Freshman computer science majors needing additional preparation before beginning calculus will be placed in the appropriate algebra or precalculus courses that provide this preparation. See advisor.

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations. More information about general education requirements can be found in the Summary*

of Degrees/Requirements (<https://catalog.jsu.edu/undergraduate/summary-degrees-requirements/>) **section of the catalog.**

<b>Freshman</b>		
<b>Fall</b>		<b>Hours</b>
EH Composition sequence		3
Natural Science sequence		4
CS 201	Introduction to Information Technology	3
CS 230	Fundamentals of Computing	3
SSC 101	First Year Experience	0
<b>Hours</b>		<b>13</b>
<b>Spring</b>		
EH Composition sequence		3
EH 141	Speech	3
Natural Science sequence		4
CS 231	Computer Programming I	3
CS 234	Discrete Computational Structures	3
<b>Hours</b>		<b>16</b>
<b>Sophomore</b>		
<b>Fall</b>		
Fine Arts		3
MS 125	Calculus I	4
History		3
CS 232	Computer Programming II	3
CS 304	Technical Writing for Computer Science (WI)	3
<b>Hours</b>		<b>16</b>
<b>Spring</b>		
History/Social/Behavioral Science <sup>1</sup>		3
MS 126	Calculus II	4
CS 310	Software Engineering I	3
CS 331	Data Structures and Algorithms	3
CS 333	Computer Organization and Architecture	3
<b>Hours</b>		<b>16</b>
<b>Junior</b>		
<b>Fall</b>		
Literature		3
Social/Behavioral Science		3
CS 488	Database Systems	3
Computer Science Electives <sup>2</sup>		3
MS 302	Applied Probability and Statistics	3
<b>Hours</b>		<b>15</b>
<b>Spring</b>		
Humanities & Fine Arts <sup>1</sup>		3
Social/Behavioral Science		3
CS 350	Fundamentals of Computer Operating Systems	3
CS 491	Software Engineering II	3
MS 352	Linear Algebra	3
<b>Hours</b>		<b>15</b>
<b>Senior</b>		
<b>Fall</b>		
CS 450	Computer Networking	3
Computer Science Electives <sup>2</sup>		3
Electives		8
<b>Hours</b>		<b>14</b>
<b>Spring</b>		
CS 462	Ethics and Legal Issues (WI)	3
Computer Science Electives <sup>2</sup>		3
Computer Science Electives <sup>2</sup>		3
Electives		6
<b>Hours</b>		<b>15</b>
<b>Total Hours</b>		<b>120</b>

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<sup>1</sup> Either a history sequence or a literature sequence is required.

<sup>2</sup> Refer to specific elective requirements for each concentration.