

DEPARTMENT OF MATHEMATICAL, COMPUTING,
AND INFORMATION SCIENCES (MCIS)

Computer Science and Computer Information Systems Programs
Accredited by the Computing Accreditation Commission of ABET, Inc.

119 AYERS HALL

Department Head: Vijaya Gompa

Professor: Case, Dempsey, Dodd, Francia, Gompa, J. Kim, Y. Kim,
Krishnaprasad, Leathrum, E. Smith, J. S. White

Associate Professor: Franklin, Garrett, K. Kim, Thornton, Trifas

Instructor: Alam, Chukwuemeka, Cochran, DaParma, C. Jensen, J. Jensen,
McDivitt, D. Smith, Snellen, A. White

Three majors are available: 1) Mathematics with one of three concentrations—Theoretical, Applied, and General; 2) Computer Science with one of three concentrations—Information Assurance, Game Development, and General; and 3) Computer Information Systems with one of three concentrations—Information Assurance, Web Development, and General.

The **Computer Science major** emphasizes the development of large software systems. It consists of prescriptive courses and elective courses. The **prescriptive courses** are CS 230, 231, 232, 234, 304, 310, 331, 333, 350, 450, 462, 488, and 491, and must be completed with a “C” or better. **Three concentrations** are available based on elective courses pursued that must be completed with a “C” or better: (1) **Information Assurance:** CS 307, 308, 412 or 425 or 461, and 470; (2) **Game Development:** CS 339, 439, and two of the following courses: 430, 432, 444; and (3) **General:** Four **elective courses** must be completed from the departmental list of approved computer science electives: two numbered 300 or above and two numbered 400 or above. 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 MS 125, 126, 302, and 352. The **Computer Information Systems major** emphasizes the development and maintenance of business software systems. It consists of prescriptive courses and elective courses. The **prescriptive courses** are CS 230, 231, 232, 304, 309, 310, 311, 333, 350, 370, 450, 462, 488, and 491, and must be completed with a “C” or better. **Three concentrations** are available based on elective courses pursued that must be completed with a “C” or better: (1) **Information Assurance:** CS 307, 308, 412 or 425 or 461, and 470; (2) **Web Development:** CS 315, 325, 425, and 415; and (3) **General:** Four **elective courses** must be completed from the departmental list of approved computer information systems electives: two numbered 300 or above and two numbered 400 or above. 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 ACC 200, EC 221, FIN 301, MGT 301, MKT 301, MS 120 or MS 125, and MS 302.

The **Computer Science minor** requires 21 hours consisting of CS 230, 231, 232, 310, 333, 350, and 488. The **Computer Information Systems minor** requires 21 hours consisting of CS 230, 231, 232, 310, 311, 370, and 488. The **Applied Information Processing minor** requires 21 hours consisting of CS 230 and six CS courses selected from CS 231, 232, 300, 302, 305, 307, 309, 310, 315, 322, and 339. Courses in each of these minors must be completed with a “C” or better. Also, courses in these minors may not be taken until all prerequisites are completed with a grade of “C” or better.

To satisfy the general studies curriculum, general courses from the areas listed in the “Plan of Study” for each major and concentration must be completed. The “Plan of Study” is located before the “Course Descriptions” for each major. All students, especially transfer students, must note the specific courses required in their “Plan of Study.” For specific requirements in each major/minor see the department head or an advisor. Students may also use the internet to obtain an outline of the specific courses required for their chosen major and concentration. The URL is <http://www.jsu.edu/mcis>.

PLANS OF STUDY
BACHELOR OF SCIENCE
MAJORS: COMPUTER SCIENCE (CS) AND
COMPUTER INFORMATION SYSTEMS (CIS)

NOTE: This schedule reflects the computer science program beginning with Calculus I (MS 125) and the computer information systems program beginning with Calculus and Its Applications (MS 120) or Calculus I (MS 125). 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.

COMPUTER SCIENCE

In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.

FRESHMAN YEAR

Fall	Spring
CS 201.....3	CS 231.....3
CS 230.....3	CS 234.....3
EH 1013	EH 102.....3
Natural Science sequence 4-5	EH 141.....3
STU 1010	Natural Science sequence 4-5
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13-14	16-17

SOPHOMORE YEAR

Fall	Spring
CS 232.....3	CS 331.....3
CS 304.....3	CS 333.....3
MS 125.....4	MS 126.....4
History3	Hist/Social/Behav Sci #3
Fine Arts3	CS 310.....3
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16	16

JUNIOR YEAR

Fall	Spring
CS 488.....3	CS 350.....3
MS 302.....3	CS 491.....3
CS Elective*3	MS 352.....3
Literature3	Humanities & Fine Arts #3
Social/Behavioral Science3	Social/Behavioral Science3
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15	15

SENIOR YEAR

Fall	Spring
CS 450.....3	CS 462.....3
CS Elective*3	CS Elective*3
Electives 6-8	CS Elective*3
	Electives6
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12-14	15
	TOTAL HOURS: 120

*Refer to specific elective requirements for each concentration.
 #Either a History sequence or a Literature sequence is required.

COMPUTER INFORMATION SYSTEMS

In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.

FRESHMAN YEAR

Fall	Spring
CS 201.....3	CS 231.....3
CS 230.....3	CS 309.....3
EH 1013	EH 102.....3
Natural Science sequence 4-5	EH 141.....3
STU 101.....0	Natural Science sequence 4-5
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13-14	16-17

SOPHOMORE YEAR

Fall	Spring
CS 232 3	CS 311.....3
CS 304..... 3	Fine Arts3
MS 120 or 125 3-4	EC 2213
ACC 200 3	History/Social/Behav Sci#3
History3	CS 310..... 3
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15-16	15

JUNIOR YEAR

Fall	Spring
CS 370..... 3	CS 350.....3
CS 488..... 3	CS 491.....3
CS Elective* 3	MGT 3013
Literature 3	Humanities & Fine Arts#3
Electives 3	CS Elective*3
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15	15

SENIOR YEAR

	Fall		Spring	
CS 450.....	3		CS 462.....	3
MS 302.....	3		CS Elective*	3
MKT 301	3		FIN 301.....	3
Electives	2-4		PSY 201	3
CS 333.....	3		CS Elective*	3
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		14-16		15
			TOTAL HOURS: 120	

*Refer to specific elective requirements for each concentration.
#Either a History sequence or a Literature sequence is required.