

## Major Map: Computer Information Systems Bachelor of Science (B.S.)

College of Engineering and Computing Department of Computer Science & Engineering Catalog Year: 2016-2017

This course plan is a recommended sequence for this major. Courses designated as critical (!) may have a deadline for completion and/or affect time to graduation. Please see the Program Notes section for details regarding "critical courses" for this particular Program of Study.

	otes section for details regarding "critical courses" for this		Min.				
ritical	Course Subject and Title	Hours	Grade <sup>1</sup>	GPA <sup>2</sup>	Code	Prerequisites	Notes
meste	er One (15-16 Credit Hours)						
	ENGL 101 Critical Reading and Composition	3	С		CC-CMW		
!	MATH 122 Calc. for Bus. Admin. & Soc. Sciences	3-4	С		CC-ARP	C or better in MATH 111/111I (MATH 122	
	or MATH 141 Calculus 13					only); C or better in MATH 112/115/116	
						(MATH 141 only); or Math placement test score	
!	CSCE 145 Algorithmic Design I	4	С	*	CC-ARP	Prereq or Coreq: MATH 111 or 115	
	CSCE 190 Computing in the Modern World	1	С	*	PR	Prereq or Coreq: CSCE 145, 204, 205, or 206	
	Carolina Core SCI Requirement <sup>4</sup>	4			CC-SCI		
neste	er Two (15 Credit Hours)						
	ENGL 102 Rhetoric and Composition	3	С		CC-CMW	C or better in ENGL 101	
					CC-INF		
	Carolina Core SCI Requirement <sup>4</sup>	4			CC-SCI		
!	CSCE 146 Algorithmic Design II	4	С	*	PR	C or better in CSCE 145, Prereq or Coreq:	
						MATH 122 or 141	
!	CSCE 215 UNIX/Linux Fundamentals	1	С	*	PR	CSCE 145	
	Carolina Core Requirement <sup>4</sup>	3			CC		
neste	er Three (15 Credit Hours)						
!	CSCE 210 Computer Hardware Foundations	3	С	*	PR	CSCE 145, 204, 205, 206, or 207	
!	CSCE 240 Introduction to Software Engineering	3	С	*	PR	CSCE 215 & C or better in CSCE 146	
	ECON 224 Introduction to Economics <sup>5</sup>	3			PR		
	SPCH 140 Public Communication	3			CC-CMS		
	Carolina Core Requirement <sup>4</sup>	3			CC		
neste	er Four (15 Credit Hours)						
	CSCE 201 Introduction to Computer Security	3	С	*	PR	Prereq or Coreq: CSCE 101, 102, or 145	
	MATH 174 Discrete Math. for Computer Science	3	С		PR	C or better in any 100-level math course	
	or MATH 374 Discrete Structures					(MATH 174 only); C or better in MATH 142	
						& CSCE 146 (MATH 374 only)	
	ACCT 222 Introduction to Accounting <sup>5</sup>	3			PR	MATH 122 or equiv. <i>or</i> sophomore standing	
	MGMT 371 Principles of Management <sup>5</sup>	3			PR		
	Carolina Core Requirement <sup>4</sup>	3			CC		
neste	er Five (16 Credit Hours)						
	CSCE 205 Business Applications Programming	3	С	*	MR	MSGC 290 or CSCE 101 or above	
!	CSCE 311 Operating Systems	3	С	*	MR	CSCE 240 & CSCE 210 or 212	
	CSCE 390 Prof. Issues in Computer Science Engr.	1	С	*	CC-VSR		
	STAT 509 Statistics for Engineers	3			PR	MATH 142 (STAT 509 only); C or better in	
	or STAT 515 Statistical Methods I					MATH 122 or 141 or both MATH 111 or	
						higher and any statistics class (STAT 515 only)	
!	MGSC 390 Business Information Systems <sup>5</sup>	3		*	PR	MGSC 290 or equivalent	
	BIM Minor Elective <sup>5</sup>	3			PR	See course listing in Bulletin.	
neste	er Six (15 Credit Hours)					8	
	CSCE 350 Data Structures & Algorithms	3	С	*	MR	CSCE 146 & MATH 174 or 374	
	CSCE 520 Database System Design	3	C	*	MR	CSCE 240 or GEOG 563	
	STAT 516 Statistical Methods II	3			PR	C or better in STAT 515, 509, 512, or equiv.	
!	ENGL 462 Technical Writing	3			PR	ENGL 101 & 102	
•	or ENGL 463 Business Writing	~					
	BIM Minor Elective <sup>5</sup>	3			PR	See course listing in Bulletin.	
neste	er Seven (15 Credit Hours)						
1	CSCE 490 Capstone Computing Project I	3	С	*	MR	CSCE 240, 311, & ENGL 462 or 463	
•	occident computing Project P				CC-INT	5551 210, 511, & LINOI 102 0/ 103	
	CSCE 416 Introduction to Computer Networks	3	С	*	MR	CSCE 311	
	CSCE 522 Information Security Principles	3	C	*	MR	CSCE 311 or MGSC 596	
	MGSC 490 Info. Systems Analysis & Design <sup>5</sup>	3		*	PR	MGSC 298 & 390	
	Liberal Arts Elective <sup>6</sup>	3			PR	See course listing in Bulletin.	
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Semester Eight (15 Credit Hours)							
CSCE 492 Capstone Computing Project II	3	С	*	MR	CSCE 490		
Computer Information Systems Major Elective <sup>7</sup>	3	С	*	MR			
MGSC 590 E-Commerce Concepts & Research	3		*	PR	MGSC 390		
Topics <sup>5</sup>							
Liberal Arts Elective <sup>6</sup>	3			PR	See course listing in <u>Bulletin</u> .		
Liberal Arts Elective <sup>6</sup>	3			PR	See course listing in Bulletin.		

**Graduation Requirements Summary** 

Minimum Total Hours	Major Requirements Hours	College & Program Requirements Hours	Minimum Carolina Core Hours	Minimum Overall GPA
121	27	60	34	2.00

- 1. Regardless of individual course grades, students must maintain a minimum 2.00 cumulative GPA.
- 2. Some colleges require a minimum GPA for major courses. Courses indicated in this column are included in the major GPA of 2.00 for this program.
- 3. Students who place into MATH 111 or 115 will be required to successfully complete it before taking MATH 122 or 141.
- 4. The <u>Carolina Core</u> provides the common core of knowledge, skill and academic experience for all Carolina undergraduate students. Students in the College of Engineering and Computing are required to demonstrate proficiency in one foreign language equivalent to the 121 course by 1) a score of two or better on the foreign language placement test; or 2) completion of the 109 and 110 courses in FREN, GERM, LATN, or SPAN or completion of the 121 course in another foreign language. Students who do not place out of the GFL requirement may need to take additional hours to meet this requirement. This major map also assumes that students complete one Carolina Core overlay course. Additional hours may be required to meet all Carolina Core requirements if no overlay course is taken.
- 5. Students in the Computer Information Systems program are required to complete a minor in Business Information Management (24 hours), including any two of the following electives (6 hours): ACCT 324 Survey of Commercial Law; ECON 311 Issues in Economics; ECON 379 Government Policy Toward Business; FINA 333 Finance and Markets; IBUS 301 Introduction to International Business; MGMT 472 Entrepreneurship and Small Business; MKTG 350 Principles of Marketing; MKTG 351 Consumer Behavior; MGSC 392 Quantitative Analysis for Business Decision Making; MGSC 395 Operations Management; MGSC 594 Strategic Management of Information Systems.
- 6. A list of acceptable Liberal Arts Elective courses is maintained in the department office and on its website.
- 7. Computer Information Systems Major Elective (3 hours): CSCE 317 or other approved CSCE courses numbered 500 and higher.

## **Program Notes:**

- Courses identified as "critical" may affect time to graduation due to prerequisite requirements for subsequent required courses.
- No Carolina Core, Lower Division Computing, Computer Science Major, or Computer Science Elective course may be counted toward a minor or application area. All other degree-required courses and electives may be used for a minor as appropriate.
- A student cannot repeat courses from the College of Engineering and Computing in which they earned a grade of C or better. In addition, a student cannot repeat any course from the College a second time. No more than four courses from the College of Engineering and Computing may be repeated in order to satisfy the requirements for any degree from the College, regardless of satisfactory work. For this purpose, withdrawal from a course with a grade of **W** is not regarded as enrollment in that course. A student that does not satisfactorily complete a degree-required College course within two attempts must change major or transfer out of the College of Engineering and Computing.
- The last 30 credit hours toward your degree and at least half of the major must be earned in residence at the University of South Carolina-Columbia.

University Requirements: Bachelor's degree-seeking students must meet Carolina Core (general education) requirements. For more information regarding these requirements, please visit the <a href="Carolina Core">Carolina Core</a> page on the University website.

Codes:						
CC	Carolina Core	CC-INF	Carolina Core – Information Literacy			
	Carolina Core-Aesthetic and Interpretive Understanding		Carolina Core – Integrative Course			
CC-ARP	Carolina Core-Analytical Reasoning and Problem-Solving	CC-SCI	Carolina Core – Scientific Literacy			
CC-CMS	Carolina Core-Effective, Engaged, and Persuasive Communication: Spoken Component	CC-VSR	Carolina Core - Values, Ethics, and Social Responsibility			
CC-CMW	Effective, Engaged, and Persuasive Communication: Written Component	CR	College Requirement			
CC-GFL	Carolina Core-Global Citizenship and Multicultural Understanding: Foreign Language	MR	Major Requirement			
CC-GHS	Carolina Core – Historical Thinking	PR	Program Requirement			
CC-GSS	Carolina Core – Social Sciences					

Disclaimer: Major maps are only a suggested or recommended sequence of courses required in a program of study. Please contact your academic advisor for assistance in the application of specific coursework to a program of study and course selection and planning for upcoming semesters.