

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

College of Engineering and Computing Department of Computer Science & Engineering Bulletin Year: 2019-2020

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

!		Credit	Min.	Program GPA <sup>2</sup>	of Study.	Prerequisites	Notes
eı	mester One (15-16 Credit Hours)						
	ENGL 101 Critical Reading and Composition	3	С		CC-CMW		
!	MATH 122 Calc. for Bus. Admin. & Soc. Sci.	3-4	С		CC-ARP	C or better in MATH 111/111I (MATH	
	or MATH 141 Calculus 1 <sup>3</sup>					122 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 <sup>4</sup>	4			CC-SCI		
21	mester Two (15 Credit Hours)						
	ENGL 102 Rhetoric and Composition	3	С		CC-CMW	C or better in ENGL 101	
	-				CC-INF		
	Carolina Core SCI <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 AIU <sup>4</sup>	3			CC-AIU		
ì	mester Three (15 Credit Hours)						
	CSCE 205 Business Applications Programming	3	С	*	MR	MSGC 290 or CSCE 101 or above	
	CSCE 210 Computer Hardware Foundations	3	С	*	PR	CSCE 145, 204, 205, 206, or 207	
	CSCE 247 Software Engineering	3	C	*	PR	C or better in CSCE 146	
_	ECON 224 Introduction to Economics <sup>5</sup>	3			PR	S of Better in GO 02.110	
	SPCH 140 Public Communication	3			CC-CMS		
	mester Four (15 Credit Hours)	5			GG GINE		
*	CSCE 201 Introduction to Computer Security	3	С	*	PR	Prereq or Coreq: CSCE 101, 102, <i>or</i> 145	
	CSCE 240 Advanced Programming Techniques	3	C	*	PR	D or better in CSCE 215 & C or better in	
	CSCE 240 Advanced Frogramming Teeriniques	3	C		110	CSCE 146	
	MATH 174 Discrete Math. for Computer Sci.	3	С		PR	C or better in MATH 115, 116, 122 or 141	
	or MATH 374 Discrete Structures	3	C		110	or pre-calculus math placement test score	
	Will 111 3/4 Discrete Structures					(MATH 174 only); C or better in MATH	
						142 & CSCE 146 (MATH 374 only)	
	MGSC 290 Computer Info. Systems in Bus.	3			PR	112 CC COCE 110 [M2 1111 97 1 0mg)	
	Carolina Core GSS <sup>4</sup>	3			CC-GSS		
	mester Five (16 Credit Hours)	3			CC-033		
2	CSCE 350 Data Structures & Algorithms	3	С	*	MR	CSCE 240; MATH 174 or 374 or 574	
_	CSCE 390 Prof. Issues in Computer Sci. Engr.	1	С	*	CC-VSR	CSCL 240, WHITI 174 W 374 W 374	
	STAT 509 Statistics for Engineers	3	C	,	PR	MATH 142 (STAT 509 only); C or better in	
	or STAT 515 Statistical Methods I	3			PK	MATH 142 (31/41 909 only), C of better in MATH 122 or 141 or both MATH 111 or	
	or STAT 515 Statistical Methods 1						
	ACCT 222 Internal antique to Annuation 5	2				higher & any statistics class (STAT 515 only)	
_	ACCT 222 Introduction to Accounting <sup>5</sup>	3				MATH 122 or equiv. or sophomore standing	
_	MGMT 371 Principles of Management <sup>5</sup>	3			PR	ENICE 404 9 402	
	ENGL 462 Technical Writing	3			PR	ENGL 101 & 102	
	or ENGL 463 Business Writing						
I	mester Six (15 Credit Hours)	2	C	*	J (D	CCCE 240 CEOC 5/2	
	CSCE 520 Database System Design	3	С	Ψ	MR	CSCE 240 or GEOG 563	
	CSCE 594 Strategic Mgmt. of Info. Systems	3	С		MR	C 1 CHAPERAE FOO FAO	
	STAT 516 Statistical Methods II	3			PR	C or better in STAT 515, 509, 512, or equiv.	
	BIM Minor Elective <sup>5</sup>	3			PR	See Bulletin listing.	
	Carolina Core GHS <sup>4</sup>	3			CC-GHS		
	mester Seven (15 Credit Hours)						
	CSCE 490 Capstone Computing Project I	3	С	*	MR	CSCE 240 & either ENGL 462 or 463;	
					CC-INT	Prereq or Coreq: CSCE 350	
	CSCE 416 Introduction to Computer Networks	3	С	*	MR	CSCE 146	
	CSCE 522 Information Security Principles	3	С	*	MR	CSCE 146; MATH 174 or 374	
	BIM Minor Elective <sup>5</sup>	3			PR	See Bulletin listing.	
-	Liberal Arts Elective <sup>6</sup>	3			PR	See Bulletin listing.	

Semester Eight (12 Credit Hours)							
	CSCE 492 Capstone Computing Project II	3	С	*	MR	CSCE 490	
	Computer Information Systems Major Elective <sup>7</sup>	3	С	*	MR	See Bulletin listing.	
	Liberal Arts Elective <sup>6</sup>	3			PR	See Bulletin listing.	
	Liberal Arts Elective <sup>6</sup>	3			PR	See Bulletin listing.	
Take during any semester (0-6 Credit Hours)							
	Carolina Core GFL <sup>4</sup> or 2 Elective hours (if	0-6			CC-GFL		
	needed)				/PR		

**Graduation Requirements Summary** 

	Minimum Total	Minimum Major	College & Program	Carolina Core	Minimum	
	Hours Requirements Hours		Requirements Hours	HoursCarolina Core Hours	Institutional GPA	
ſ	120	27	57-59	34-40	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 Computer Information Systems program GPA of 2.00.
- 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.
- 5. Students in the Computer Information Systems program are required to complete a minor in Business Information Management (18 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 395 Operations Management.
- 6. Liberal Arts Electives include: AERO 401, 402; AFAM 201-580; ANTH 100-499; ARMY 401, 402; ARTE 101, 260; ARTH 105-366; ARTS 103-261; CHIN 103-550; CLAS 220-598; CPLT 150-597; CRJU 100-494; DANC 101-381; ECON 101-499; ENGL 270-499; FAMS 180-597; FREN 109-615; GEOG 103-595; GERM 109-615; HIST 101-692; ITAL 101-615; JAPA 121-500; LASP 201-451; LATN 109-615; LING 300-600; MART 110-341; MUSC 110-140; NAVY 401, 402; PHIL 101-109, 112-598; POLI 100-499; PORT 121-615; PSYC 100-499; RELG 101-552; RUSS 121-616; SOCY 100-499; SOST 101-500; SPAN 109-615; THEA 170-565; WGST 111-555.
- 7. Computer Information Systems Major Elective (3 hours): ITEC 447, ITEC 560 or an approved CSCE course, 510 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.
- Disclaimer: Prerequisites on courses are subject to change. Please refer to Bulletin.

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

Codes:						
CC	Carolina Core	CC-INF	Carolina Core – Information Literacy			
CC-AIU	Carolina Core-Aesthetic and Interpretive Understanding	CC-INT	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.