

Major Map: Computer Information Systems Bachelor of Science (B.S.) College of Engineering and Computing Department of Computer Science & Engineering

Bulletin Year: 2022-2023

This course plan is a recommended sequence for this major. Courses designated as critical (I) 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.

the F	gram Notes section for details regarding "critical courses" for this particular Program of Study. Credit Min. Program						
! Se				GPA <sup>2</sup>	Code	Prerequisites	Notes
	ENGL 101 Critical Reading and Composition	3	С		CC-CMW		
	MATH 122 Calc. for Bus. Admin. & Soc. Sci. or MATH 141 Calculus 1 <sup>3</sup>	3-4	С		CC-ARP	C or better in MATH 111/1111 or 115 (MATH 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 SCI⁴	4			CC-SCI		
Se	mester Two (15 Credit Hours)						
	ENGL 102 Rhetoric and Composition	3	С		CC-CMW CC-INF	C or better in ENGL 101	
	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		
Se	mester Three (15 Credit Hours)						
	CSCE 205 Business Applications Programming <i>fall only</i> or CSCE 242 Client-Server Computing	3	С	*	MR	MSGC 290 or CSCE 101 or above	
	CSCE 210 Computer Hardware Foundations fall only	3	С	*	PR	D or better in CSCE 145, 204, 205, 206, or 207	
	CSCE 247 Software Engineering	3	С	*	PR	C or better in CSCE 146	
	ECON 224 Introduction to Economics <sup>5</sup>	3			PR		
	SPCH 140 Public Communication	3			CC-CMS		
	or SPCH 145 Online Public Communication or SPCH 230 Business & Prof. Speaking						
Se	mester Four (15 Credit Hours)	2	<u> </u>	*	DD		
-	CSCE 201 Introduction to Computer Security CSCE 240 Advanced Programming	3	C C	*	PR PR	Prereq or Coreq: CSCE 101, 102, or 145 D or better in CSCE 215 & C or better in	
1	Techniques	3	C		PK	CSCE 146	
!	MATH 174 Discrete Math. for Computer Sci. or MATH 374 Discrete Structures	3	С			C or better in MATH 115, 116, 122 or 141 or pre-calculus placement test score (MATH 174 only); C or better in MATH 142 & CSCE 146 (MATH 374 only)	
	MGSC 290 Computer Info. Systems in Bus.	3			PR		
	Carolina Core GSS <sup>4</sup>	3			CC-GSS		
Se	mester Five (16 Credit Hours)	-					
!	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		
	STAT 515 Statistical Methods I (or STAT 509 Statistics for Engineers)	3			PR	C or better in MATH 122 or 141 <i>or</i> both MATH 111 or higher & any statistics class (STAT 515 only); MATH 142 (STAT 509 only)	
	ACCT 222 Survey of Accounting <sup>5</sup>	3				MATH 122 or equiv. or sophomore standing	
	MGMT 371 Principles of Management <sup>5</sup>	3			PR		
	ENGL 462 Technical Writing	3			PR	ENGL 101 & 102	
	or ENGL 463 Business Writing						
Se	mester Six (15 Credit Hours)						
	CSCE 520 Database System Design	3	C	*	MR	CSCE 240 or GEOG 563	
	CSCE 594 Strategic Mgmt. of Info. Systems	3	С	*	MR		
-	STAT 516 Statistical Methods II spring only	3			PR	C or better in STAT 515, 509, 512, or equiv.	
	BIM Minor Elective <sup>5</sup>	3			PR CC-GHS	See Bulletin listing.	
60	Carolina Core GHS <sup>₄</sup> mester Seven (15 Credit Hours)	<u>ა</u>			00-0H2		
	CSCE 490 Capstone Computing Project I fall	3	С	*		D or better in CSCE 240; Prereq or Coreq:	
-	only CSCE 416 Introduction to Computer Networks	3	С	*	CC-INT MR	D or better in CSCE 350 CSCE 146	
	CSCE 416 Introduction to Computer Networks CSCE 522 Information Security Principles fall only	3	C	*	MR	CSCE 146 CSCE 146; MATH 174 or 374	
-	BIM Minor Elective <sup>5</sup>	3			PR	See Bulletin listing.	
$\vdash$	Liberal Arts Elective <sup>6</sup>	3			PR	See Bulletin listing.	
L		5	1			Coo Danotiri notiriy.	

Semes	Semester Eight (12 Credit Hours)						
	CE 492 Capstone Computing Project II ing only	3	С	*	MR	D or better in CSCE 490, 350, & 240	
Cor	mputer Information Systems Major Elective <sup>7</sup>	3	С	*	MR	See Bulletin listing.	
Libe	eral Arts Elective <sup>6</sup>	3			PR	See Bulletin listing.	
Libe	eral Arts Elective <sup>6</sup>	3			PR	See Bulletin listing.	
Take c	Take during any semester (0-6 Credit Hours)						
Car	rolina Core GFL <sup>4</sup> or 2 Elective hours (if	0-6			CC-GFL		
nee	eded)				/PR		

## **Graduation Requirements Summary**

Minimum Total Hours	Minimum Major Requirements Hours	College & Program Requirements Hours	Carolina Core Hours	Minimum Institutional GPA
120	27	57-59	34-41	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.
- 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 (9 hours) 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 101-494; DANC 101-381; ECON 123-499; 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 101-600, but only one of LING 300, LING 301, and LING 600 can be used; MART 110-341; MUSC 110-140; NAVY 401, 402; PHIL 101-109, 112-598; POLI 101-499; PORT 121-615; PSYC 101-499; RELG 101-552; RUSS 121-616; SOCY 101-499; SOST 101-500; SPAN 109-615; THEA 170-565; WGST 112-555.
- 7. Computer Information Systems Major Elective (3 hours): ITEC 447, 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.
- All undergraduate students must take a 3-credit course or its equivalent with a passing grade that covers the founding documents. This course may fulfill any requirement in the program of study. Courses that meet this requirement are listed in the academic bulletin.
- 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 25% of a student's degree must be completed in residence at the University, and at least half of the hours in the student's major courses and in the student's minor courses (if applicable) must be taken at the University.
- 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.