



Geographic Information Science Concentration College of Arts and Sciences Department of Geography Bulletin Year: 2025-2026

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 regardin	"critical courses" for this	particular Program of Study.
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ritical		Credit Hours	Min. Grade ¹	Major GPA ²	Code	Prerequisites	Notes
mest	er One (15-17 Credit Hours)						
!	ENGL 101 Critical Reading and Composition	3	С		CC-CMW		
	MATH 122 Calculus for Bus. Admin. & Soc. Sciences	3-4			CC-ARP	C or better in MATH 111/111/115 (MATH	
	or MATH 141 Calculus 13					122); C or better in MATH 115 (MATH	
						141); or placement through the MAP	
	Foreign language ⁴ or other Carolina Core	3-4			CC-GFL		
	Requirement ⁵						
	Carolina Core Requirement ⁵	3			CC		
	UNIV 101 The Student in the University	3			PR/CC		
	or Carolina Core Requirement⁵						
mast	er Two (15-16 Credit Hours)						
	ENGL 102 Rhetoric and Composition	3	С		CC-CMW	C or better in ENGL 101	
:	LINGE 102 Knetone and Composition	3	C			C of better in Lings for	
	MATIL 440 0 1 1 11	0.4			CC-INF	0 1 " 1 MATH 44 (MATH 46)	
	MATH 142 Calculus II	3-4			CC-ARP	,,	
	or MATH 170 Finite Mathematics					C or better in MATH 111/1111 or	
	or MATH 172 Math. Modeling for the Life Sciences					placement through the MAP (MATH	
						170); C or better in MATH 122 or 141	
						(MATH 172)	
	STAT 201 Elementary Statistics	3			CR	C or better in MATH 111 or higher; or C	
						or better in STAT 110 or STAT 112; or	
						placement through the MAP	
	Foreign language ⁴ or other Carolina Core	3			CC-GFL		
	Requirement ⁵				000.		
	Carolina Core Requirement ⁵	3			CC		
most	er Three (15-16 Credit Hours)	5			CC		
mesi		2		1	MD		
	GEOG 263 Geographic Information Systems	3	C		MR		
	Choose 1 of the following:	3-4	С		CC		
	GEOG 103 Foundations of Geography (CC-GSS)						
	GEOG 104 Introduction to Physical Geog. (CC-SCI)						
	GEOG 105 The Digital Earth (CC-ARP)						
	GEOG 121 Geographies of Global Change (CC-GSS)						
	GEOG 201 Landform Geography (CC-SCI)						
	GEOG 202 Weather and Climate (CC-SCI)						
	GEOG 210 People, Places, & Envr. (CC-GSS)						
	CSCE 102 General Applications Programming	3			CR		
	Foreign language ⁴ or Carolina Core Requirement ⁵	3			CR/CC		
	History ⁶	3			CR		
		J			CK		
mest	er Four (15-16 Credit Hours)		_	1			
	GEOG 341 Cartography	3	С		MR		
	or GEOG 345 Introduction to Remote Sensing						
	or GEOG 531 Quant. Methods in Geographic						
	Research						
	GEOG Major Course ⁷	3	С		MR	See Bulletin listing	
	Cognate or Minor Course8	3	C (minor)		PR		
	Social Science	3	,		CR		
	Carolina Core Requirement ⁵	3-4			CC		
m 0.04		J-4		L			
mest	er Five (15-16 Credit Hours)			1			
	GEOG 341 Cartography	3	С		MR		
	or GEOG 345 Interpretation of Aerial Photographs						
	or GEOG 531 Quant. Methods in Geographic						
	Research						
	Cognate or Minor Course8	3	C (minor)		PR		
	Cognate or Minor Course ⁸	3	C (minor)		PR		
	Carolina Core Requirement ⁵ or Elective ⁹	3-4		1	CC/PR		
	Carolina Core Requirement ⁵ or Elective ⁹	3			CC/PR	+	
maat		J			00/FR		
mest	er Six (15 Credit Hours)	_			MD	Con Dulletin Bether	
	GEOG Major Course ⁷	3	C	ļ	MR	See Bulletin listing	
	Cognate or Minor Course ⁸		C (minor)		PR		
	Humanities or Fine Arts	3			CR		
	Elective ⁹	3			PR		
	Elective ⁹	3		I T	PR		

Semester Seven (15-16 Credit Hours)						
GEOG 495 Seminar in Geography (offered fall only)	3	С		MR	At least 15 hrs. GEOG credit	
				CC-INT		
Non-Geog. Info. Science Elective ¹⁰ (200-level or	3-4	С		MR		
above)						
Minor Course ⁸ or Elective ⁹	3	C (minor)		PR		
Elective ⁹	6			PR		
Semester Eight (13 Credit Hours)						
GEOG Major Course ⁷	3	С		MR	See Bulletin listing.	
Minor Course ⁸ or Elective ⁹	3	C (minor)		PR		
Elective ⁹	3			PR		
Elective ⁹	3			PR		
Elective ⁹	1			PR		

Graduation Requirements Summary

Minimum Total Hours	Minimum Major Requirements Hours	College & Program Requirements Hours	Carolina Core Hours	Minimum Institutional GPA
120	24	52-64	32-44	2.000

- 1. Regardless of individual course grades, students must maintain a minimum 2.000 cumulative GPA.
- 2. Some colleges require a minimum GPA for major courses. Courses indicated in this column are included in the major GPA for this program of study.
- 3. Students who do not place into MATH 122 or 141 will be required to take the required prerequisite before proceeding with MATH 122 or 141.
- 4. Students in the College of Arts and Sciences are required to demonstrate proficiency in one foreign language equivalent to the 122 course through course credit or the corresponding foreign language placement score.
- 5. The Carolina Core provides the common core of knowledge, skill and academic experience for all Carolina undergraduate students.
- 6. The College of Arts and Sciences requires one U.S. History and one non-U.S. History course, both of which must be chosen from the approved Carolina Core GHS courses. Whichever is not fulfilled through the Carolina Core GHS requirement must be fulfilled through this college requirement.

7. Geography Major Courses (9 credit hours): At least 2 courses from the major must be from the 500-level.

Choose from the following:	
GEOG 349 Cartographic Animation (3)	GEOG 554 Spatial Programming (3)
GEOG 535 Hazards Analysis & Planning (3)	GEOG 562 Satellite Mapping and the Global Positioning System (3)
GEOG 541 Advanced Cartography (3)	GEOG 563 Advanced Geographic Information Systems (3)
GEOG 542 Dynamic Cartography (3)	GEOG 564 GIS-Based Modeling (3)
GEOG 551 Remote Sensing of the Environment (3)	GEOG 565 Geog. Info. Systems (GIS) Databases & Their Use (3)
GEOG 552 LiDARgrammetric & Photo. Digital Surface Mapping (3)	GEOG 341, 345, or 531 may be used, if not used above

- 8. The cognate is intended to support the course work in the major. The cognate must consist of twelve hours of courses at the advanced level, outside of, but related to the major. In place of a cognate, a student may choose a minor consisting of at least 18 credit hours of courses concentrated in one area that follow a structured sequence. All minor courses must be passed with a grade of C or higher. For B.S. degrees, grades of D are acceptable for completion of the cognate requirement. A second major eliminates the minor/cognate requirement.
- 9. No courses of a remedial, developmental, skill-acquiring, or vocational nature may apply as credit toward degrees in the College of Arts and Sciences. The College of Arts and Sciences allows the use of the Pass-Fail option on elective courses. Further clarification on inapplicable courses can be obtained from the College of Arts and Sciences.
- 10. GEOG 595 can be used to fulfill up to 3 hours of geography elective credit, but not the 500-level requirement. A list of non-Geographic Information Science electives can be found in the Bulletin.

Program Notes:

- Courses identified as "critical" must be completed in the student's first 60 semester hours of work in order for these courses to be credited toward graduation.
- 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.
- Any exceptions or additional options in the Geography major may be made with the consultation and approval of the departmental advisor.
- BA with Distinction in Geography (36 hours): Available to students majoring in Geography who wish to participate in significant research activities in their major field under the supervision of a faculty mentor. A minimum GPA of 3.50 in the major and 3.30 cumulative is required to apply for a BA or BS with Distinction in Geography. Requirements:
 - o Students must submit a written application for the BS with Distinction in Geography at least eight months before completion of the degree.
 - o Written sponsorship agreement from a Geography faculty mentor on file in the department.
 - An established thesis committee consisting of a tenure-track faculty member in Geography & at least one other tenure-track or research faculty member at the University of South Carolina.
 - o A written thesis demonstrating significant original work and approved by the thesis committee.
 - o A public presentation of the Senior Thesis research.
 - General major requirements, plus 12 additional credit hours including: a minimum of 9 credit hours in GEOG 498, or any GEOG 500-level courses, and GEOG 499-Senior Thesis (3).
- The last 30 credit hours toward your degree 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 Carolina Core 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.