



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.

Critical	Course Subject and Title	Credit Hours	Min. Grade ¹	Major GPA ²	Code	Prerequisites	Notes
Semester One (15 Credit Hours)							
!	MSCI 101 The Ocean Environment	4	C		CC-SCI		
!	MATH 141 Calculus 1 ³	4	C		CC-ARP	C or better in MATH 112/115/116 or placement through the MAP	
!	CHEM 111 & 111L General Chemistry I	4	C		PR	C or higher in MATH 111 or higher (or by placement into MATH 115 or higher)	
	UNIV 101 The Student in the University or Carolina Core Requirement ⁴	3			PR/CC		
Semester Two (18 Credit Hours)							
!	ENGL 101 Critical Reading and Composition	3	C		CC-CMW		
!	MSCI 102 The Living Ocean	4	C		CC-SCI		
!	MATH 142 Calculus II	4			CC-ARP	C or better in MATH 141	
!	CHEM 112 & 112L General Chemistry II	4	C		PR	C or higher in MATH 111 or higher MATH (or by placement score into MATH 115 or higher); C or higher in CHEM 111L or CHEM 141L	
	Foreign Language ⁵ or other Carolina Core Req. ⁴	3			CC-GFL		
Take during Semester Three or Four (0-2 hours)							
	Preapproved Field Experience or MSCI 460 ⁶	0-2	C		MR	C or better in MSCI 101 & 102 or C or better in BIOL 101 & 102	
Semester Three (17 Credit Hours)							
!	ENGL 102 Rhetoric and Composition	3	C		CC-CMW CC-INF	C or better in ENGL 101	
	MSCI 311 Biology of Marine Organisms (fall only)	4	C		MR CC-INT	MSCI 102 or BIOL 101	
!	PHYS 201 & 201L General Physics I or PHYS 211 & 211L Essentials of Physics I	4	C		PR	C or better in MATH 111/111i/112/115/116/122/141 or by placement into MATH 122, 141 or higher (PHYS 201); C or better in MATH 141 (PHYS 211)	
	Foreign Language ⁵ or other Carolina Core Req. ⁴	3			CC-GFL		
	History ⁷	3			CR		
Semester Four (18 Credit Hours)							
	MSCI 313 The Chemistry of the Sea (spring only)	4	C		MR CC-INT	C or better in MSCI 101, CHEM 111, CHEM 112, & MATH 141	
	BIOL 301 Ecology & Evolution & BIOL 301L	3	C		MR CC-INT	C or better in BIOL 102 or MSCI 311	
	MSCI 314 Physical Oceanography (fall only)	4	C		MR CC-INT	C or better in MSCI 101, MATH 141, & PHYS 201 or 211	
!	PHYS 202 & 202L General Physics II or PHYS 212 & 212L Essentials of Physics II	4	C		PR	C or better in PHYS 201 (PHYS 202); C or better in PHYS 211 & MATH 142 (PHYS 212)	
	Foreign Language ⁵ or Carolina Core Req. ⁴	3			CR/CC		
Semester Five (16 Credit Hours)							
	MSCI 314 Physical Oceanography (fall only)	4	C		MR CC-INT	C or better in MSCI 101, MATH 141, & PHYS 201 or 211	
	STAT 515 Statistical Methods I	3	C		CR	C or better in MATH 112/115/122 or 141; or both C or better in STAT 110 or higher and in MATH 111; or placement through the MAP	
	CSCE 102 Web Design & Development using AI Tools or higher-level CSCE course or MSCI 305 Ocean Data Analysis or MSCI 509 MATLAB-Based Data Analysis in Ocean Sciences	3	C		CR	MSCI 101 & MATH 141 (MSCI 305); MATH 141 (MSCI 509)	
	Carolina Core Requirement ⁴	3			CC		
	Carolina Core Requirement ⁴	3			CC		
Semester Six (15 Credit Hours)							
	MSCI Bio-Oceanography Elective ⁹	3	C		MR	See Bulletin listing	
	BIOL 302 Cell & Molecular Biology or BIOL 303 Fundamental Genetics	3	C		MR CC-INT	C or better in BIOL 101 & in 102 or MSCI 311 & in CHEM 112 or 142 (BIOL 302); C or better in BIOL 101 & 102 or in MSCI 311 (BIOL 303)	
	Social Science	3			CR		
	Humanities or Fine Arts	3			CR		
	Carolina Core Requirement ⁴ or Elective ⁸	3			CC/PR		

Semester Seven (14 Credit Hours)

MSCI Bio-Oceanography Elective ⁹	3	C		MR	See Bulletin listing	
MSCI 505 Senior Seminar	1	C		MR		
Carolina Core Requirement ⁴ or Elective ⁸	3			CC/PR		
Electives ⁸	7			PR		
Semester Eight (15-16 Credit Hours)						
MSCI Elective (300-level and above) ¹⁰	3-4	C		MR	See Bulletin listing	
MSCI Elective (300-level and above) ¹⁰ –only if needed to meet MSCI major requirements ⁶	3	C		MR	See Bulletin listing	
Electives ⁸	9			PR		

Graduation Requirements Summary

Minimum Total Hours	Minimum Major Requirements Hours	College & Program Requirements Hours	Carolina Core Hours	Minimum Institutional GPA
128	36	46-58	34-46	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 place into MATH 115 will be required to successfully complete it with a grade of C or better before taking MATH 141. MATH 115 can be used as an approved elective. Students who start with MATH 115 should use the following sequence for the first three semesters:

Semester One	Semester Two	Semester Three
ENGL 101	ENGL 102	MSCI 311
MSCI 101	MSCI 102	MATH 142
MATH 115	MATH 141	CHEM 112 & 112L
UNIV 101 or other Carolina Core Requirement	CHEM 111 & 111L	PHYS 201 & 201L or PHYS 211 & 211L
	Foreign Language or other Carolina Core Req.	Foreign language or other Carolina Core Req.

4. The [Carolina Core](#) provides the common core of knowledge, skill and academic experience for all Carolina undergraduate students.
5. Students in the McCausland 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.
6. All MSCI majors are required to complete a minimum of 60 hours of marine science field effort. Possibilities include taking the MSCI 460 class, semester or summer internship, REU, semester at sea, or faculty-sponsored field research or cruise or field data collection/analysis. Students who opt for an experience other than the MSCI 460 class must submit a petition for an alternative field experience to the Undergraduate Director. If the alternative is approved, the student must submit a short (2-3 page minimum) report at the completion of the experience to the Undergraduate Director for approval. Upon approval, the Undergraduate Director will notify the Dean's office of the substitution, and the student's record will be updated to reflect zero credit hours in MSCI 460 for meeting the field effort requirement. If the student takes the MSCI 460 class (2-credit hours), those credits will be counted towards their 23 major elective credit hours.
7. The McCausland 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.
8. No courses of a remedial, developmental, skill-acquiring, or vocational nature may apply as credit toward degrees in the McCausland College of Arts and Sciences. The McCausland 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 McCausland College of Arts and Sciences in Flinn Hall.
9. Select two courses from the following list of marine biology, ecology or biology courses, or similar courses as approved by advisor: **MSCI** 375, **MSCI/BIOL** 450, 503 (BIOL 502, 510, 525, 535, 536, 537, 538, 552, 574, 575, 576, 577, 627; **MSCI** 496, 497, 498, 499, 566, 578, 599 (if biology oriented); **BIOL** 302 (302L is optional, but may be taken with BIOL 302) or 303; **BIOL** 426, 460 (or 460L), 462, 505 (or 505L), 534 (or 534L), 541, 543 (or 543L), 549, 550 (or 550L), 570 (or 570L), 640, 652, 690.
10. In addition to the required 13 hours of major coursework, Marine Science majors must select 23 hours of Marine Science electives (which include the required Biological Oceanography Concentration courses) in consultation with a faculty advisor for a total of 36 major hours. The elective courses listed in the Undergraduate Studies Bulletin for Marine Science are commonly selected, but any course which is eligible for cognate credit in the McCausland College of Arts and Sciences can potentially be a major course in Marine Science. The determination of major courses in this interdisciplinary program is the result of consultation between the student and an advisor.

Program Notes:

- ENGL 101 and ENGL 102 must be completed in the student's first 60 semester hours of work in order for these courses to be credited toward graduation. MSCI 101 and MSCI 102 must be completed in the first year in order to stay on track with subsequent Marine Science courses and ensure a timely graduation. Other courses identified as "critical" must be completed before the beginning of the student's 5th major semester.
- Marine Science majors may enroll in the following courses a maximum of two times to earn the required grade of C or higher: MATH through MATH 142, CHEM 111/111L, CHEM 112/112L, PHYS 201/201L or PHYS 211/211L, PHYS 202/202L or PHYS 212/212L. For the purposes of this standard of progression, withdrawal with a W does not constitute enrollment. These courses, in addition to MSCI 101 and MSCI 102, must be completed before the beginning of the student's third academic year (fifth major semester) as a marine science major.
- A maximum of 10 semester hours of a combination of independent study, seminar, and undergraduate research courses may count in the 36 hours of major credit required for the Marine Science major.
- 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](#).

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.