

Biology, B.S. Marine Sciences Concentration

Academic Advising Center 2nd Floor Lanier Hall 478-445-2361 advising@gcsu.edu

2023-24 Catalog

This example plan is designed to provide a blueprint for students to complete their degrees within four years. It includes recommended sequences of courses. Individual plans will vary based on previously earned credit, such as Dual Enrollment and AP credit, as well as the student's academic goals. Students will work with an academic advisor to develop a more individualized plan to complete their degree.

This example four-year plan is applicable to students admitted during the 2023–24 academic year.

Total Credits Required: 120 credits

Required GPA for Graduation: 2.0 (institutional)

Courses requiring a C or better are denoted with an asterisk (*).

Legend is available on the last page of this document.

Year 1						
Fall	Spring					
Title	Hours	Area	Course	Title	Hours	Area
First-Year Academic Seminar	1		BIOL 1108* BIOL 1108L*	Principles of Biology II & Lab (pre-reqs to BIOL 2800, 3700, and 4715)	4	F
English Composition I (pre-req to ENGL 1102)	3	Α	ENGL 1102	English Composition II	3	Α
Principles of Biology I & Lab (pre-reqs to BIOL 2100, 2800, 3400, and 3700)	4	F	Core Area C	Humanities and Ethics (student's choice)	3	С
Precalculus (pre-req to MATH 1401)	4	Α	Core Area E	Social Science (student's choice)	3	E
Critical Thinking (pre-req to GC2Y 2000)	3	В	MATH 1401	Elementary Statistics	3	D
Semester Hours	15			Semester Hours	16	
Area A and GC1Y 1000 must be completed by 30 earned hours. First-Year Academic Seminar is a graduation requirement and impacts a student's GPA; however, it does not count toward the minimum of 120 semester hours required for a degree. MATH 1113 or higher, passed with a C or better, is required for Area A Math for biology majors.					toward	
	First-Year Academic Seminar English Composition I (pre-req to ENGL 1102) Principles of Biology I & Lab (pre-reqs to BIOL 2100, 2800, 3400, and 3700) Precalculus (pre-req to MATH 1401) Critical Thinking (pre-req to GC2Y 2000) Semester Hours Area A and GC1Y 1000 must be compositive minimum of 120 semester hours of MATH 1113 or higher, passed with a	First-Year Academic Seminar English Composition I (pre-req to ENGL 1102) Principles of Biology I & Lab (pre-reqs to BIOL 2100, 2800, 3400, and 3700) Precalculus (pre-req to MATH 1401) Critical Thinking (pre-req to GC2Y 2000) Semester Hours Area A and GC1Y 1000 must be completed by First-Year Academic Seminar is a graduation the minimum of 120 semester hours required MATH 1113 or higher, passed with a C or between the seminar is a graduation of the minimum of the passed with a C or between the seminar is a graduation of the minimum of the passed with a C or between the passed w	First-Year Academic Seminar English Composition I (pre-req to ENGL 1102) Principles of Biology I & Lab (pre-reqs to BIOL 2100, 2800, 3400, and 3700) Precalculus (pre-req to MATH 1401) Critical Thinking (pre-req to GC2Y 2000) Semester Hours Area A and GC1Y 1000 must be completed by 30 ear First-Year Academic Seminar is a graduation requirer the minimum of 120 semester hours required for a de MATH 1113 or higher, passed with a C or better, is resembled.	First-Year Academic Seminar First-Year Academic Seminar First-Year Academic Seminar English Composition I (pre-req to ENGL 1102) Principles of Biology I & Lab (pre-reqs to BIOL 2100, 2800, 3400, and 3700) Precalculus (pre-req to MATH 1401) Critical Thinking (pre-req to GC2Y 2000) Semester Hours Area A and GC1Y 1000 must be completed by 30 earned hours. First-Year Academic Seminar is a graduation requirement and impact the minimum of 120 semester hours required for a degree. MATH 1113 or higher, passed with a C or better, is required for Area	Fall Title Hours Area Course First-Year Academic Seminar Title First-Year Academic Seminar Title First-Year Academic Seminar Title BIOL 1108* BIOL 1108* BIOL 1108L* BIOL 1108* BIOL 1108L* BIOL 1108 Principles of Biology II & Lab (pre-reqs to BIOL 2800, 3700, and 4715) English Composition I (pre-req to ENGL 1102) Principles of Biology I & Lab (pre-reqs to BIOL 2800, 3400, and 3700) Precalculus (pre-req to MATH 1401) Principles of Biology I & Lab (pre-reqs to BIOL 2100, 2800, 3400, and 3700) Precalculus (pre-req to MATH 1401) Critical Thinking (pre-req to GC2Y 2000) Semester Hours Area A and GC1Y 1000 must be completed by 30 earned hours. First-Year Academic Seminar is a graduation requirement and impacts a student's GPA; however, it does not the minimum of 120 semester hours required for a degree.	Title Hours Area Course Title Hours First-Year Academic Seminar 1 BIOL 1108* BIOL 1108* (pre-reqs to BIOL 2800, 3700, and 4715) English Composition I (pre-req to ENGL 1102) 3 A ENGL 1102 English Composition II 3 (pre-reqs to BIOL 2100, 2800, 3400, and 3700) Principles of Biology I & Lab (pre-reqs to BIOL 2100, 2800, 3400, and 3700) Precalculus (pre-req to MATH 1401) 4 A Core Area E Social Science (student's choice) 3 (pre-req to GC2Y 2000) 3 B MATH 1401 Elementary Statistics 3 (pre-req to GC2Y 2000) 3 B MATH 1401 Elementary Statistics 16 (pre-req to GC2Y 2000) 3 Semester Hours 15 Semester Hours 16 (pre-req to GC2Y 2000) 3 Elementary Statistics 3 (pre-req to GC2Y 2000) 3 (pre-req to GC2Y 2000) 3 Elementary Statistics 3 (pre-req to GC2Y 2000) 3 (pre-req to GC2Y 2000) 3 Elementary Statistics 3 (pre-req to GC2Y 2000) 3 (pre-req to GC2Y 2000

	Year 2						
	Fall	Spring					
Course	Title	Hours	Area	Course	Title	Hours	Area
BIOL 2100*	Genetics (pre-req to BIOL 3200 and 3700)	4	F	BIOL 2800*	Ecology	4	F
CHEM 1211K*	Principles of Chemistry I & Lab (pre-req to CHEM 1212K and 3361)	4	Cognate	CHEM 1212K*	Principles of Chemistry II & Lab	4	Cognate
Core Area C	Fine Arts (student's choice)	3	С	GC2Y 2000	Global Perspectives	4	В
Core Area E	Social Science (student's choice)	3	Е	Core Area E	Social Science (student's choice)	3	Е
STEM Elective*	1000- or 2000-level course that is relevant to biology (BIOL, CHEM, CSCI, ENSC, GEOL, MATH)	3	F				
	Semester Hours	17			Semester Hours	15	
Summer Consider study abroad over summer to complete requirements (e.g., GC2Y 2000)							
Notes: BIOL 2100, BIOL 2800, and GC2Y 2000 must be taken between 30–59 earned hours. Elective course can be used to fulfill the 2 hours at 1000- or 2000-level required for Area F, if needed.							

Year 3							
Fall			Spring				
Course	Title	Hours	Area	Course	Title	Hours	Area
BIOL 3200*	Cellular & Molecular Physiology	3	Major	BIOL 3000*	Seminar	2	Major
BIOL 3400*	Organismal Physiology	3	Major	BIOL 3500*	Marine Biology	4	Major
CHEM 3361* CHEM 3361L*	Organic Chemistry I & Lab	4	Cognate	BIOL 4715*	Oceanography	3	Major
Lang 1001*	World Language I (1001-level)	3	Elective	Lang 1002*	World Language II (1002-level)	3	Foreign Lang
BIOL 3700*	Evolution	3	Major	Gen Elective	Any general elective course	3	Elective
	Semester Hours	16			Semester Hours	15	
Summer Consider completing capstone internship or study abroad. Internships or REU programs help build experience.							
Notes: BIOL 3000 (Seminar) should be taken after at least 59 hours earned. General electives can be in any discipline and any level (1000–4999, unless specified as upper-level). Students must complete a world language course at the 1002 level or higher. Complete the WebCAPE exam to determine placement for first course.							

Year 4							
	Fall	Spring					
Course	Title	Hours	Area	Course	Title	Hours	Area
PHYS 1111*	S 1111* Introductory Dhysica I 8 Lab	4	I Connate	Concentration	Marine Sciences Concentration	4	Major
PHYS 1111L*	Introductory Physics I & Lab			Elective*	course (student's choice)		
Concentration	Marine Sciences Concentration	4	I Maior I	Concentration	Marine Sciences Concentration	4	Major
Elective*	course (student's choice)			Elective*	course (student's choice)		
Capstone*	Capstone	4	Capstone	Upper-Level	Any 3000- or 4000-level elective	3	Elective
Capsione				Gen Elective	Any 3000- or 4000-level elective		Elective
Gen Elective	Any general elective course	3	Elective	Gen Elective	Any general elective course	3	Elective
	Semester Hours	15			Semester Hours	14	
Senior capstone can only be completed when 90 or more credit hours have been earned.							
General electives can be in any discipline and any level (1000–4999, unless specified as upper-level).							
Notes:	otes: Choose 3 classes from this list to fulfill Marine Sciences Concentration requirements: BIOL 4480, 4490, 4500, 4610, 4795,						, 4795,
4950 (Global Climate Change, 3 credit hours), or 4951 (Coastal Biology, Coral Reef Biology, or Marine Biology in the						e	
Bahamas).							

	Legend				
Area	This section of the plan references the area of the curriculum the course fulfills.				
Α	Core Area A: Essential Skills				
В	Core Area B: Institutional Options				
С	Core Area C: Humanities, Ethics, and Fine Arts				
D	Core Area D: Science, Technology, and Math				
E	E Core Area E: Social Sciences				
F	Core Area F: Major Directed Core Requirements				
Major	Biology Major Requirements				
Elective	Course(s) a student selects. Hours are needed to meet overall graduation hours. Number of electives varies per major. Electives can be used towards GC Journeys, minors, or professional/graduate school pre-requisites, or to take courses of interest.				
Cognate	Cognate courses are required courses within a student's curriculum. These courses are connected to the major but may be from other academic disciplines.				