

MARINE SCIENCE (B.S.)

The Bachelor of Science (B.S.) Marine Science integrates traditional scientific disciplines by focusing them on the study of the world's oceans and coastal waters. The program combines aspects of biology, chemistry, geology, mathematics, and physics to provide students with a strong interdisciplinary education in the natural sciences and it applies a systems approach to identifying and understanding the roles the oceans play in the functioning of our planet. Students also benefit from field- and laboratory-based learning experiences at FGCU's Vester Marine Field Station, which provides water access to Estero Bay and the Gulf of Mexico.

Program Progression and Additional Graduation Requirements

- Attend an orientation session.
- Sign an Advising Agreement document.

In addition to the program requirements, students must:

- Complete a minimum of 120 credits.
- Complete a minimum of 48 of the 120 credits at the upper division (3000 - 4999 level).
- Earn a cumulative GPA of 2.0 for all coursework attempted at FGCU.
- Satisfy the College-Level Skills and foreign language entrance requirements.
- Satisfy the Service-Learning requirement.
- Satisfy the Civic Literacy requirement.
- Satisfy the residency requirement: 30 of the last 60 credits must be completed at FGCU.
- Complete the summer course enrollment requirement.
- Submit an Application for Graduation by the deadline listed in the FGCU Academic Calendar.

Program Requirements

Code	Title	Credits
FGCU General Education Program (https://www.fgcu.edu/academics/undergraduatestudies/generaleducation/)		
To prevent or minimize excess hours, select general education courses that satisfy common prerequisite requirements for your intended major.		
Common Prerequisites		
For this major, common prerequisite courses with an asterisk (*) require prior knowledge and skills demonstrated through degree acceleration programs (e.g., the College Board's Advanced Placement Program [AP], International Baccalaureate Program [IB], College-Level Examination Program [CLEP], Advanced International Certificate of Education Program [AICE]); dual enrollment; placement exam; or college coursework.		
A minimum grade of C is required in each course		
BSC 1010C	General Biology with Lab I (Acceptable Substitute: BSCX010C or (BSCX010 and BSCX010L))	4
BSC 1011 & 1011L	General Biology II and General Biology II Laboratory (Acceptable Substitute: BSCX011C or (BSCX011 and BSCX011L))	4

CHM 1045 & 1045L	General Chemistry I and General Chemistry I Laboratory (Acceptable Substitute: CHMX045C or (CHMX045 and CHMX045L)) ^{*,1}	4
CHM 1046 & 1046L	General Chemistry II and General Chemistry II Lab (Acceptable Substitute: CHMX046C or (CHMX046 and CHMX046L))	4
MAC 2311	Calculus I (Acceptable Substitute: MACX311 or an advanced mathematics course) ^{*,2}	4
OCE 1001C	Introduction to Oceanography (Acceptable Substitute: OCEX001C or OCEX001)	3
PHY 2053 & 2053L	College Physics I and College Physics I Laboratory (Acceptable Substitute: PHYX053C or (PHYX053 and PHYX053L) or (PHYX004 and PHYX004L)) ^{*,2}	4

Required Courses in the Major (30 credits)

A minimum grade of C is required in each course		
CHM 1084C	Environmental Chemistry	4
GLY 1010C	Physical Geology	4
GLY 4730C	Marine Geology	3
ISC 3154C	Environmental Research Design	3
OCB 4633C	Marine Ecology	3
OCB 4936	Senior Capstone Marine Science	1
OCC 4002C	Marine Chemistry	3
OCE 3603C	Quant Techniques Oceanography	3
OCP 3002C	Physical Oceanography	3
PCB 3463C	Marine Ecos Mon & Res Method	3

Restricted Electives in the Major

A minimum grade of C is required in each course

Students are asked to select their electives equitably between the physical and biological sciences to best ensure they are well prepared as interdisciplinary marine scientists.

Complete one from the following:		
ISC 4910	Sr. Proj Rsch Intrdisc Nat Sci (capstone)	3
ISC 4940	Internship in Interdis Nat Sci (capstone)	3
Complete 2 credits in any combination from the following:		
BSC 4933	Current Topics in Biology ³	1
EVR 4920	Current Topics Environ Studies ³	1
ISC 4930	Current Top in Intd Nat Scienc ³	1-3
Complete 6 credits from the following Biological courses:		
EVS 4814C	Environmental Toxicology	3
OCB 3108C	Field Studies Marine Science	4
OCB 4930	Special Topics: Marine Biology	3
PCB 3043C	General Ecology	3
PCB 4442C	Wetland Ecology	3
OCB 4623C	Marine Physiology	3
OCB 4740C	Marine Invertebrates	3
ZOO 4454C	Ichthyology	3
Complete 3 credits from the following Quantitative Applications and Methods courses:		
OCE 4260C	Coastal Remote Sensing and GIS	3
EVR 4043C	Environmental GIS	3

STA 3163	Applied Statistics	3
----------	--------------------	---

Complete 3 credits from the following Physical and Geochemical courses:

GLY 3420C	Tectonics	4
GLY 3603C	Paleontology	3
GLY 4071C	Paleoclimatology	3
GLY 4074C	Meteorology & Climatology	3
GLY 4244C	Biogeochemistry	3
GLY 4520C	Organic Geochemistry	3
GLY 4700C	Coastal & Watershed Geology	3
GLY 4732C	Coastal Dynamics	3
GLY 4822C	Hydrogeology	3
GLY 4952	Carbonate Deposition Environs	3
OCE 4930	Special Topics: Oceanography	3

Complete 3 credits from the following:

BCH, BOT, BSC, CHM, EVR, EVS, GLY, MAP, OCB, OCC, OCE, OCG, OCP, PCB, PHY, ZOO - upper division (3000-4999 level)

Sustainability Course Graduation Requirement	(3 credits)
---	--------------------

Select at least 3 credits in sustainability coursework (SCGR Attribute)

Additional Electives

As needed to reach total credits required for the degree

¹ Prerequisites of MAT 1033 Intermediate Algebra minimum grade of C then MAC 1105 College Algebra minimum grade of C; or relevant accelerated credit; or placement exam

² Prerequisites of MAT 1033 Intermediate Algebra minimum grade of C then MAC 1105 College Algebra minimum grade of C then MAC 1147 Precalculus minimum grade of C; or relevant accelerated credit; or placement exam

³ This course/prefix number can be repeated as long as the topic is different.

Note: FGCU is submitting a Common Prerequisites Manual (CPM) Revision Request to establish a new track in the CPM

Total Credits Required: 120