

Department of Biology Graduation Checklist
<https://biology.sfsu.edu/advising/undergraduate>

LD= _____ Student: _____ E-mail _____
 UD= _____ Last First _____
 Advisor: _____ Phone _____

BACHELOR OF SCIENCE IN BIOLOGY: CONCENTRATION IN MARINE SCIENCE

All courses for the major must be completed with a letter grade (CR/NC is not acceptable).
 Course is 3 units unless otherwise noted.

Lower Division Requirements (35 units) [should be 34 units] **Sp/Su 25 based on 2024 offerings**

Class	Prerequisites (must be completed with a C- or better, unless otherwise stated; however, Chemistry prerequisite courses must be completed with a C or better)	Class Name	Units	Fa 24	Sp 25	Su 25	v	on DPR?
BIOL 230		Introductory Biology I (5)	5	yes	yes	no		
BIOL 231		Advising for Success as a Biology Major (1)	1	yes	yes	no		
BIOL 240	Biol 230	Introductory Biology II (5) [Meets GE Area B2 (Life Science)]	5	yes	yes	no		
CHEM 115	see https://bulletin.sfsu.edu/courses/chem/	General Chemistry 1 (4)	4	yes	yes	yes		
CHEM 130	Chem 115	General Organic Chemistry	3	yes	yes	yes		
MATH 226	see https://bulletin.sfsu.edu/courses/math/	Calculus I (4)	4	yes	yes	yes		
Select one physics sequence (4 units):								
PHYS 111/112	see https://bulletin.sfsu.edu/courses/phys/	General Physics I/Laboratory (3/1)		yes	yes	yes		
PHYS 220/222 ¹	see https://bulletin.sfsu.edu/courses/phys/	General Physics with Calculus I and Laboratory (3/1)		yes	yes	yes		
Select 8 units from the following:								
CHEM 215	Chem 115	General Chemistry II with Lab (4)		yes	yes	yes		
MATH 227 ¹	see https://bulletin.sfsu.edu/courses/math/	Calculus II (4)		yes	yes	yes		
select appropriate physics lecture/lab to complete physics sequence								
PHYS 121/122 ²	see https://bulletin.sfsu.edu/courses/phys/	General Physics II and Laboratory (3/1)		yes	yes	yes		
PHYS 230/232 ²	see https://bulletin.sfsu.edu/courses/phys/	General Physics with Calculus II and Laboratory (3/1)		yes	yes	yes		
1 If taking PHYS 220/PHYS 222, MATH 227 must be taken concurrently. 2 PHYS 111/PHYS 112 are the prerequisites for PHYS 121/PHYS 122. PHYS 220/PHYS 222 are the prerequisites for PHYS 230/PHYS 232.								
Note: Chem 115 and Chem 215 were revised as of Fall 2024			Total lower division requirements (units):	35	[should be 34 units]			

The courses listed in **purple bold text** are the biology core courses shared across the Biology BS concentrations.

Upper Division Requirements (22 - 25 units) [Bulletin states 22-25, but should be 23-27 units] **Fa 24 Sp 25 Su 25 v on DPR?**

BIOL 337	Biol 230 + Biol 240 + Biol 355	Evolution	3	yes	yes	yes		
BIOL 355	Biol 230 + Biol 240 + Chem 115	Genetics [meets GE UD-B requirement]	3	yes	yes	yes		
BIOL 458	one college-level Biology course	Biometry (4)	4	yes	yes	no		
Units selected from the following (3 - 4 units):								
BIOL 582	Biol 230 + Biol 240	Biological Oceanography & Limnology (4)		no	yes	no		
CHEM 680	Chem 215	Chemical Oceanography		no	yes	no		
ERTH 400	At least 9 units of coursework in geoscience, earth sciences, chemistry, or physics.	Earth Systems I		yes	no	no		
ERTH 434	Upper-division standing; MATH 226 + [PHYS 111 or PHYS 220]; GPA of 3.0 or higher	Coastal Processes		no	no	no		
ERTH 470	Upper-division standing; [ERTH 170 or EARTH 172 or EARTH 270] and PHYS 220; GPA of 3.0 or higher	Physical Oceanography		no	no	no		
Select one class from the following (GWAR options) (3 - 4 units)								
BIOL 475GW	Biol 230 + Biol 240 + GE Area 2	Herpetology - GWAR		no	yes	no		
BIOL 478GW	Biol 230 + Biol 240 + GE Area 2	Ornithology - GWAR (4)		no	yes	no		
BIOL 570GW	Biol 230 + Biol 240 + GE Area 2	Biology of Fishes - GWAR (4)		yes	no	no		
BIOL 586GW	Biol 230 + Biol 240 + GE Area 2	Marine Ecology Laboratory (4)		no	yes	no		
BIOL 670GW	GE Area A2 + BIOL 240 + BIOL 458 with grades of C or better; concurrent enrollment in BIOL 671 + [BIOL 699 or BIOL 897]	Ecology and Evolution of Marine Systems I - GWAR (6)		no	yes	no		

Units selected from the following (6 - 7 units):

Courses used to satisfy the GWAR above may not be double-counted as electives. **Fa 24 Sp 25 Su 25**

BIOL 315	Biol 240 + Biol 458 (with grades C or better); GPA 3.0 or better	Field Methods in Ecology and Evolution (1)		no	no	yes		
BIOL 349	GE Areas A1*, A2*, A3*, and B4*	Bioethics		no	no	no		
BIOL 350	Biol 230 + Biol 240 + Chem 115	Cell Biology		yes	yes	yes		
BIOL 356	Biol 355 with a grade of B or better	Honors Genetics (2)		no	no	no		
BIOL 357	Biol 355	Molecular Genetics		yes	yes	no		
BIOL 380	Biol 355 (Biol 337 is recommended)	Evolutionary Developmental Biology		no	no	no		
BIOL 382	Biol 350 + Biol 355, GPA 3.0 or higher	Developmental Biology		no	yes	no		
BIOL 401	Biol 230 + Biol 240 + Chem 233	General Microbiology		yes	yes	no		
BIOL 460	Biol 230 + Biol 240	General Entomology (4)		yes	no	no		
BIOL 470	Biol 230 + Biol 240	Natural History of Vertebrates (4)		no	no	no		
BIOL 482	Biol 230 + Biol 240	Ecology (4)		yes	yes	no		
BIOL 502	Biol 230 + Biol 240, GPA 3.0 or higher	Biology of the Algae		no	yes	no		
BIOL 525	Biol 230 + Biol 240 + Chem 130	Plant Physiology		no	yes	no		
BIOL 526	Biol 230 + Biol 240 + Chem 130	Plant Molecular Physiology Laboratory (2)		no	no	no		

