

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

LD= _____
 UD= _____

Student: _____
 Last First
 Advisor: _____

E-mail _____
 Phone _____

BACHELOR OF SCIENCE IN BIOLOGY: CONCENTRATION IN PHYSIOLOGY

Course is 3 units unless otherwise noted.

Lower Division Requirements (34-37 units)

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 21	Sp 22	Su 22	v	on DPR?
BIOL 230		Introductory Biology I	5	yes	yes	no		
BIOL 231		Advising for Success as a Biology Major	1	yes	yes			
BIOL 240	Biol 230	Introductory Biology II [Meets GE Areas B2 (Life Science) & B3 (Lab Science)]	5	yes	yes	no		
CHEM 115	see http://bulletin.sfsu.edu/courses/chem/	General Chemistry I: Essential Concepts of Chemistry	5	yes	yes	no		
CHEM 215	Chem 115	General Chemistry II: Quant. Appl. of Chem. Conc. (3)	3	yes	yes	yes		
MATH 226	see http://bulletin.sfsu.edu/courses/math/	Calculus I	4	yes	yes	yes		
Select one organic chemistry sequence (3-6 units):								
CHEM 130	Chem 115	General Organic Chemistry [meets GE Area B1]		yes	yes	yes		
CHEM 233 and CHEM 335	see http://bulletin.sfsu.edu/courses/chem/	Organic Chemistry I [meets GE Area B1] and Organic Chemistry II		yes	yes	yes		
Select one physics sequence (8 units):								
PHYS 111/112	see http://bulletin.sfsu.edu/courses/phys/	General Physics I and Laboratory (3/1) and		yes	yes	yes		
PHYS 121/122	see http://bulletin.sfsu.edu/courses/phys/	General Physics II and Laboratory (3/1)		yes	yes	yes		
OR		OR						
PHYS 220/222	see http://bulletin.sfsu.edu/courses/phys/	General Physics with Calculus I and Laboratory (3/1) and		yes	yes	yes		
PHYS 230/232	see http://bulletin.sfsu.edu/courses/phys/	General Physics with Calculus II and Laboratory (3/1)		yes	yes	yes		

Total lower division requirements (units): 34 - 37

Upper Division Requirements (15-16 units)

				Fa 21	Sp 22	Su 22	v	on DPR?
BIOL 337	Biol 230 + Biol 240 + Biol 355	Evolution	3	yes	yes	no		
BIOL 355	Biol 230 + Biol 240 + Chem 115	Genetics [meets GE UD-B requirement]	3	yes	yes	yes		
Select one physiology lecture (3 units):								
BIOL 612	Biol 230 + Biol 240 + Chem 130 + Phys 121	Human Physiology		yes	yes	yes		
BIOL 630	Biol 230 + Biol 240 + [Chem 130 or Chem 233]	Animal Physiology		yes	yes	no		
Select one physiology lab (3-4 units):								
BIOL 613GW	GE Area 2 + [Biol 612 or Biol 630 (may be taken concurrently)]	Human Physiology Laboratory - GVAR		yes	yes	yes		
BIOL 631GW	GE Area 2 + Biol 612 or Biol 630	Animal Physiology Laboratory - GVAR (4)		yes	no	no		
Select one biochemistry course (3 units):								
CHEM 340	Chem 215 + Chem 233 + Chem 335 with grades of C or better	Biochemistry I		yes	yes	no		
CHEM 349	Chem 215 (grade C or better) + [Chem 130 (grade C or better) or Chem 335 (grade of C- or better)]	General Biochemistry		yes	yes	yes		

Upper Division Requirements (units) 15-16

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Upper Division Electives (10 units)

Select 10 units from the classes below; at least 6 units must be chosen from among the Group A courses.

Group A courses			Fa 21	Sp 22	Su 22	v	on DPR?
BIOL 328	Biol 230	Human Anatomy (4)	yes	yes	no		
BIOL 350	Biol 230 + Biol 240 + Chem 115	Cell Biology	yes	yes	yes		
BIOL 616	Biol 230 + Biol 240 + Phys 121 + [Biol 612 or Biol 630]	Cardiorespiratory Physiology	yes	yes	no		
BIOL 617	Biol 612 or Biol 630	Environmental Physiology	no	no	no		
BIOL 618	[Biol 212 or Biol 612] + Biol 350 + Biol 355	Biology of Aging	no	no	no		
BIOL 620	Biol 230 + Biol 240	Endocrinology	yes	yes	no		
BIOL 621	Biol 230 + Biol 240 + Biol 330 + Chem 130; Biol 492 or a vertebrate anatomy course recommended	Reproductive Physiology	yes	no	yes		
BIOL 622	Biol 230 + Biol 240	Hormones and Behavior	no	yes	no		
BIOL 623	Biol 230 + Biol 240 + Biol 612 + Chem 130, GPA 3.0 or higher	Pharmacology	no	yes	no		
BIOL 640	Biol 230 + Biol 240 + Chem 130 + Phys 121; Biol 350 and Biol 612 recommended	Cellular Neurosciences	yes	no	no		
BIOL 642	Biol 328 or Biol 612	Neural Systems Physiology	no	yes	no		

Group B courses			Fa 21	Sp 22	Su 22	v	on DPR?
BIOL 435	Biol 350 or Biol 401	Immunology	yes	yes	no		
BIOL 453	Biol 230 + Biol 240 + Biol 355	General Parasitology	yes	no	no		
BIOL 454	Biol 453 (may be taken concurrently)	Parasitology Laboratory (1)	yes	no	no		
BIOL 525	Biol 230 + Biol 240 + Chem 130	Plant Physiology	yes	yes	no		
BIOL 526	Biol 230 + Biol 240 + Chem 130	Plant Molecular Physiology Laboratory (2)	no	yes	no		
BIOL 615	Biol 230 + Biol 240 + Biol 612	Molecular Pathophysiology	no	no	no		
BIOL 644	Biol 230 + Biol 240 + [Biol 350 or Biol 355 or Biol 357]	LEADerS Service Learning Course: Learners Engaged in Advocating for Diversity in Science (4)	no	no	no		
OR BIOL 652	[Biol 230 + Biol 240] OR one upper division biology course	Science Education Partners in Biology (4)	no	no	no		
OR BIOL 654	Biol 230	Peer Assistants for Learning Science (4)	yes	yes	no		
BIOL 699	Restricted to senior Biology majors; consent of the department and instructor.	Independent Study in Biology (1-3 units) <i>requires faculty mentor's approval</i>	yes	yes	no		

Course Num.	Course Title	Units

What course has student taken to meet GEAR?

GEAR course must be completed with a C- or better to meet graduation requirements

	Required	Completed
Total upper division unit requirements :	25-26	_____
Total units for major (minimum 59 units)	59-63	_____

Recommendations for targeted post-graduate plans

Health profession

Students must take Chem 216
 Students must take the full year of organic chemistry with lab: Chem 233/234 and Chem 335/336.

Graduate programs

Students must take Chem 216
 Students must take the full year of organic chemistry with lab: Chem 233/234 and Chem 335/336.
 Students should take the full year of biochemistry: Chem 340 and Chem 341
 Student should consult with major advisor to optimize course plan for goals.