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

LD=		Student:	E-mail					
UD=		Last First						
		Advisor:	Phone					
	PACHELOD OF SCIE	NOT IN DIOLOGY, CONCENTRATION IN DILYC		v				
All for the costs		NCE IN BIOLOGY: CONCENTRATION IN PHYS	IOLOG	Y				
Course is 3 units unless	must be completed with a letter grade (CR/NO	Lis not acceptable).						
	irements (34-37 units)			Sn/S	ıı 25 h	ased (	nn 202	24 offerings
Lower Division Requ				36/30	1 23 5	aseu	1 202	- Torrerings
	<b>Prerequisites</b> (must be completed with a C- or better, unless otherwise							
Class	stated; however, Chemistry prerequisite	Class Name	Units	Fa	Sp	Su	٧	on DPR?
	courses must be completed with a C or			24	25	25		
	better)							
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 I with Lab (4)	4	ves	ves	yes		
CHEM 215	Chem 115	General Chemistry II with Lab (4)	4	yes	yes	yes		
MATH 226	see https://bulletin.sfsu.edu/courses/math/	Calculus I (4)	4	yes	yes	yes		
	emistry sequence (3-6 units):							
CHEM 130	Chem 115	General Organic Chemistry		yes	yes	yes		
CHEM 233 and	see https://bulletin.sfsu.edu/courses/chem/	Organic Chemistry I and Organic Chemistry II		yes	yes	yes		
CHEM 335	see neeps.// buncennsisu.edu/ cour ses/ chemy	organic Chemistry Fand Organic Chemistry II		yes	yes	yes		
Select one physics se	quence (8 units):			Ь—				
PHYS 111/112	see https://bulletin.sfsu.edu/courses/phys/	General Physics I and Laboratory (3/1) <i>and</i>		yes	yes	yes		
PHYS 121/122	see https://bulletin.sfsu.edu/courses/phys/	General Physics II and Laboratory (3/1)		yes	yes	yes		
OR		OR		Щ.				
PHYS 220/222	see https://bulletin.sfsu.edu/courses/phys/	General Physics with Calculus I and Laboratory (3/1) and		yes	yes	yes		
PHYS 230/232	see https://bulletin.sfsu.edu/courses/phys/	General Physics with Calculus II and Laboratory (3/1)		yes	yes	yes		
Note: Chem 115 and	Chem 215 were revised as of Fall 2024	Total lower division requirements (units):	34 - 37	i				1
The courses listed in purple bold text are the biology core courses shared across the Biology BS concentrations.								
Upper Division Regu	irements (15-16 units)			Fa	Sp	Su	٧	DPR?
	1			24	25	25		
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		
Select one physiology lecture (3 units):			3					
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	no	no		
Select one physiology	•		3-4					
	GE Area 2 + [Biol 612 or Biol 630 (may		Ì		Ì			
BIOL 613GW	be taken concurrently)]	Human Physiology Laboratory - GWAR	<u> </u>	yes	yes	yes		
BIOL 631GW	GE Area 2 + [Biol 612 or Biol 630 (may be taken concurrently)]	Animal Physiology Laboratory - GWAR (4)		no	no	no		
Select one biochemis	try course (3 units):		3					
CHEM 340	Chem 215 + Chem 233 + Chem 335 with grades of C or better	Biochemistry I		yes	yes	no		

Upper Division Requirements (units) 15-16

yes yes

Upper Division Electives (10 units)

CHEM 349

Chem 215 (grade C or better) + [ Chem

130 (grade C or better) or Chem 335

(grade of C- or better)]

General Biochemistry

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Group A courses				Fa	Sp	Su	v	DPR?
Stoup A courses				24	25	25	٧	DPK:
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	no	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	yes	no		
BIOL 620	Biol 230 + Biol 240	Endocrinology		no	no	no		
BIOL 621	Biol 230 + Biol 240 + Biol 330 + Chem 130; Biol 492 or a vertebrate anatomy course recommended	Reproductive Physiology		no	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	no	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		
			ı			1	ŀ	on
Group B courses				Fa 24	Sp 25	Su 25	٧	DPR?
BIOL 332	Biol 230 + Biol 240 + Biol 355, GPA 3.0 or higher	Health Disparities in Cancer		yes	no	no		
BIOL 435	Biol 350 or Biol 401	Immunology		yes	no	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)		no	no	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		
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 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) requires faculty mentor's approval		yes	yes	no		
Course Num.		Course Title	Units					
			4					
What course has st	tudent taken to meet GWAR?							
	be completed with a C- or better to meet g	raduation requirements	_					
	•		Required	!			C	ompleted
		Total upper division unit requirements:	25-26				_	
		Total units for major (minimum 59 units)	59-63				_	
Recommendations	for targeted post-graduate plans							
		Students generally required to take the full year of organic	: -					
Health profession		chemistry with lab: Chem 233/234 and Chem 335/336 (check your target program)						
		Students should check their target programs to confirm requirements. $% \label{eq:confirm} % \label{eq:confirm}$						
Graduate programs								
		Students generally required to take the full year of organic chemistry with lab: Chem 233/234 and Chem 335/336 (check your target program)	:					
		Students should take the full year of biochemistry: Chem	340 and (	Chem	341			
		Student should consult with major advisor to optimize co	ourse plan	for g	oals.			