

BACHELOR OF ARTS IN GENERAL BIOLOGY ROADMAP – QUANTITATIVE REASONING CATEGORY III/IV

120 Total Units Required

Minimum Number of Units in the Major: 58

This roadmap is a suggested plan of study and does not replace meeting with an advisor. Please note that students may need to adjust the actual sequence of courses based on course availability. Please consult your Degree Planner (<https://registrar.sfsu.edu/degreeplanner/>) and an advisor for further guidance.

To avoid taking additional units, it is recommended that you meet the SF State Studies (AERM, GP, ES, SJ) requirements within your GE or major.

Course	Title	Units
First Semester		
BIOL 231	Advising for Success as a Biology Major (Major Lower-Division Core)	1
MATH 197	Prelude to Calculus I (Major Lower-Division Core) ¹	3
GE Area 1A: English Composition ²		3
GE Area 1: English Communication		3
GE Area 3: Arts and Humanities - Take Two		6
Units		16
Second Semester		
BIOL 230	Introductory Biology I (Major Lower-Division Core)	5
CHEM 115	General Chemistry I (Major Lower-Division Core)	4
MATH 198	Prelude to Calculus II (Major Lower-Division Core)	3
GE Area 4: Social and Behavioral Sciences ⁴		3
Units		15
Third Semester		
BIOL 240	Introductory Biology II (Major Lower-Division Core) ⁵	5
Select One:		3-4
CHEM 215	General Chemistry II (hidden prereq for CHEM 233)	
SF State Studies or University Elective ³		
GE Area 1: English Communication		3
GE Area 4: Social and Behavioral Sciences ⁴		3
Units		14-15

Fourth Semester

BIOL 355	Genetics (Major Upper-Division Core) ⁶	3
Select One (Lower-Division Core):		3
CHEM 130	General Organic Chemistry	
CHEM 233	Organic Chemistry I	
PHYS 111 & PHYS 112	General Physics I and General Physics I Laboratory (Major Lower-Division Core, GE 5A, GE 5C)	4
SF State Studies or University Elective - Take Two ³		6
Units		16

Fifth Semester

BIOL 337	Evolution (Major Upper-Division Core)	3
Physiology or Cell Biology ⁷		3-4
Physiology or Cell Biology Laboratory ⁸		1-4
GE Area 6: Ethnic Studies (https://bulletin.sfsu.edu/undergraduate-education/general-education/areasix/)		3
SF State Studies or University Elective ³		3
Units		13-17

Sixth Semester

Ecology, Evolution, or Organismal Biology Courses - Take Two ⁹		6-9
GE Area 3UD: Upper-Division Arts or Humanities		3
U.S. and California Government (https://bulletin.sfsu.edu/undergraduate-education/american-institutions/#usg)		3
SF State Studies or University Elective (if needed) ³		0-3
Units		15

Seventh Semester

Upper-Division Electives ¹⁰		4
GE Area 4UD: Upper-Division Social and Behavioral Sciences		3
SF State Studies or University Elective - Take Three ³		9
Units		16

Eighth Semester

Upper-Division Electives - Take as Needed ¹⁰		3-12
SF State Studies or University Elective - Take as needed ³		3-12
Units		15
Total Units		120-125

¹ Students should use their Pathway/Category (<https://gatorsmartstart.sfsu.edu/pathways/>) to determine the appropriate GE 2 course option. For directions on how to view your Pathway/Category, visit [howtofindyourpathways/](https://gatorsmartstart.sfsu.edu/howtofindyourpathways/). Questions? Contact Gator Smart Start. (<https://gatorsmartstart.sfsu.edu/>)

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³ **Complementary Studies**

Students in the B.A. Biology program will satisfy the Complementary Studies Requirement with the completion of courses in chemistry, physics, and mathematics that are required for the major.

⁴ First-time freshmen must take one lower-division Area 4 course that meets US History (USH).

⁵ GE Area 5B (Biological Science) is satisfied upon completion of BIOL 240.

⁶ Area 5UD (Upper-Division Science) is satisfied upon completion of BIOL 355.

⁷ **Physiology or Cell Biology Course (3-4 units)**

A full list of courses that can fulfill this requirement can be found in the Degree Requirements (<https://bulletin.sfsu.edu/colleges/science-engineering/biology/ba-general-biology/#degreerequirementstext>).

⁸ **Physiology or Cell Biology Laboratory Course (1-4 units)**

A full list of courses that can fulfill this requirement can be found in the Degree Requirements (<https://bulletin.sfsu.edu/colleges/science-engineering/biology/ba-general-biology/#degreerequirementstext>).

⁹ **Ecology, Evolution, or Organismal Biology Courses (6-9 units)**

A full list of courses that can fulfill this requirement can be found in the Degree Requirements (<https://bulletin.sfsu.edu/colleges/science-engineering/biology/ba-general-biology/#degreerequirementstext>).

¹⁰ **Upper-Division Electives (7-16 units)**

A full list of courses that can fulfill this requirement can be found in the Degree Requirements (<https://bulletin.sfsu.edu/colleges/science-engineering/biology/ba-general-biology/#degreerequirementstext>).