

	<i>Units</i>
Major requirements	40
Biology Core	(22)
Option requirements	(18)
A. Molecular Biology and Bioinformatics	(5)
BIOL 150 and 151	
B. Cell Structure and Development	(3-4)
Select one from the following list: BIOL 140, 141, 155, 156	
C. Cellular/Molecular Physiology of Organisms/Organ Systems	(3-4)
Select one from the following list: BIOL 123, 131, 157, 160, 165, 166	
D. Molecular/Cellular Techniques	(2-4)
Select one from the following list: BIOL 152, 153, 157L, 178	
<i>Note: A minimum of two laboratory experiences from B, C, and D are required.</i>	
E. Seminar	(1)
BIOL 181	
F. Choose one additional course from above or any upper-division biology course, including independent study or research	(0-4)
Additional requirements	37
1. CHEM 1A-B, 128A-B, 129A, 150 or 155	(21)
2. PHYS 2A-B	(8)
3. MATH 70 or 75	(4)
4. MATH 101 or PSYCH 42	(4)
General Education requirements	51
Electives and remaining degree requirements	1
<i>(See Degree Requirements); may be used toward a double major or minor.)</i>	
Total	120*

* See Advising Note 1.



Physiology and Anatomy Option

This degree program is designed to help students understand cellular to whole organism function in preparation for medical, clinical, academic or research careers that require physiology as a foundation. The ultimate goal of physiology is to understand, in physical and chemical terms, the mechanisms that operate in living organisms. This option encompasses three major branches of physiology: cellular, systemic, and whole organism. This option offers excellent preprofessional preparation for medicine, dentistry, pharmacy, clinical lab science, various careers requiring physiology, and for advanced graduate study. Students planning to enter professional and graduate programs should elect CHEM 1A-B and 128A-B rather than CHEM 3A and 8, and should consult an adviser about additional mathematics requirements as well. Students interested in the Clinical Laboratory Science Program are required to take BIOL 120, BIOL 157, 164, and BIOL 121. They must also take CHEM 105, which is not included in this option. It is recommended that they take BIOL 160 and the chemistry courses for chemistry majors (e.g. CHEM 1A-B rather than CHEM 3A). Please consult an adviser.

	<i>Units</i>
Major requirements	40
Biology Core	(22)
Option requirements	(18)
A. Select one course from each of these three lines	(10-13)
1. <i>Anatomy</i> : BIOL 120, 130, 140, 141, 142, 143, 144	
2. <i>Molecular and Cellular Biology</i> : BIOL 131, 155, 156, 157 and 157L;	
3. <i>Organismal Physiology</i> : BIOL 160, 161, 162 and 162L	
B. Select two additional courses from the following list or from other courses listed in category A.	(5-8)
BIOL 64 or 65, 121, 150, 163, 164, 165, 166, 167	
Additional requirements	29-38
1. CHEM 3A or 1A-B, 8 or 128A-B, 129A, 150 or 155	(13-21)
2. PHYS 2A-B	(8)
3. MATH 70 or 75	(4)
4. MATH 101 or PSYCH 42	(4)
General Education requirements	51
Electives and remaining degree requirements	0-9
<i>(See Degree Requirements); may be used toward a double major or minor.</i>	
Total	120*

* See Advising Note 1.

Advising Notes for All Options

- within the Bachelor of Science in Biology*
- The total of 120 units assumes biology majors in this option will maximize the 9 units of General Education requirements that also may be applied to major and additional required courses as follows: 3 units of CHEM 3A (Ecology, Evolutionary, and Organismal Biology Option) or CHEM 1A (Molecular, Cellular, and Developmental Biology Option and Physiology and Anatomy Option) in G.E. Breadth B1; 3 units of BIOL 1A in G.E. Breadth B2; and 3 units of MATH 75 in G.E. Foundation B4. Consult your major academic adviser for details.
 - B.S. biology majors who have taken introductory sequences other than BIOL 1A and 1B must consult with their faculty