BACHELOR OF SCIENCE IN BIOLOGY - GENERAL

Code	Title	Credit Hours	
Wellness Requirement			
APPH 1040	Scientific Foundations of Health	2	
or APPH 10	The Science of Physical Activity and Health		
or APPH 10	Flourishing: Strategies for Well-being and Resilience	1	
Core IMPACTS	3		
Institutional Priortiy			
CS 1301	Introduction to Computing	3	
or CS 1315	Introduction to Media Computation		
or CS 1371	Computing for Engineers		
Mathematics	and Quantitative Skills		
MATH 1552	Integral Calculus	4	
or MATH 1	5 65 Iculus for Life Sciences		
Political Scien	nce and U.S. History		
HIST 2111	The United States to 1877	3	
or HIST 211	The United States since 1877	Ŭ	
or INTA 120	American Government in Comparative Perspective		
or POI 110	16 overnment of the United States		
	1000 mories and the onited States		
Arts, Humanit	ies, and Ethics	C	
		0	
Communicatii			
ENGL 1101	English Composition I	3	
ENGL 1102	English Composition II	3	
Technology, Mathematics, and Science			
Lab Science		8	
MATH 1551	Differential Calculus	2	
MATH 1553	Introduction to Linear Algebra	2	
Social Sciences			
Any SS		9	
Field of Study			
BIOS 1207 & 1207L	Biological Principles for Majors and Biological Principles Project Laboratory	4	
or BIOS 110 & 1107L	DBiological Principles and Biological Principles Laboratory		
CHEM 1211K	Chemical Principles I	4	
CHEM 1212K	Chemical Principles II	4	
CHEM 2311	Organic Chemistry I	3	
CHEM 2312	Organic Chemistry II	3	
or CHEM 23	3Organic and Bioorganic Chemistry		
Major Requirements			
PHYS 2211	Principles of Physics I ⁵		
PHYS 2212	Principles of Physics II ⁵		
BIOS 1208	Organismal Biology for Majors	4	
& 1208L	and Organismal Biology Project Laboratory		
or BIOS 110Organismal Biology			
&1108L	and Organismal Biology Laboratory		
BIOS 2300	Ecology	3	

Total Credit Hours		122
Free Electives ^{3,4}		11
Free Electives		
Biology Electives 3000-level or higher ²		21
Biology Electi	ves	
BIOS 4401	Experimental Design and Statistical Methods in Biological Sciences	
BIOS 4150	Genomics and Applied Bioinformatics	
BIOS 3400	Mathematical Models in Biology	
Select one of the following:		
or CHEM 2389bthesis Laboratory I		
CHEM 2380	Synthesis Laboratory I	2
Non-Biology (Courses	
BIOS 4690	Independent Research Project	
BIOS 4590	Research Project Lab	
Select one of the following:		3
BIOS 4460	Behavioral Biology	1
BIOS 3600	Evolutionary Biology	3
Biology Lab ¹		2
or BIOS 26	I Integrative Genetics	
BIOS 2600	Genetics	3
BIOS 3450	Cell and Molecular Biology	3
or BIOS 23	1 0 roblems in Ecology	

Students must complete two of the three lab categories listed below. Each lab should be taken concurrently with the associated lecture course when possible. If you choose to take all three lab courses, then the 3000-level course may count toward Biology Electives instead of the Core Lab requirement.

- Ecology or Problem-based Ecology lab: BIOS 2301 or BIOS 2311
- · Genetics or Integrative Genetics lab: BIOS 2601 or BIOS 2611
- · Cell and Molecular Biology lab: BIOS 3451

² Students are required to complete 21 credit hours of Biology electives defined as follows:

- 12 'depth' credit hours must be 3000-level or higher courses with 'BIOS' prefix, excluding BIOS 4694-BIOS 4699. BIOS courses that are cross-listed with other departments are included in these 12 depth credit hours.
- The remaining 9 'breadth' credit hours can be selected from: other BIOS 3000-level or higher courses, BIOS experiential learning courses*, and/or the list of approved courses offered in other departments**.
 - **Experiential learning courses include: BIOS 4695, BIOS 4697, BIOS 4699, and VIP courses (VIP courses must have a Biological Sciences instructor). A maximum of 6 credits of each experiential learning course may be used to fulfill 'breadth' credit hours. Additional experiential learning coursework may be used to fulfill Free Electives.
 - **Approved breadth elective courses in other departments include 3000-level or higher BMED, CHEM, EAS, NEUR, MATH, PHYS, PSYC; EXCEPT the following: BMED 4699, BMED 4900-BMED 4903, CHEM 4601, CHEM 4695, CHEM 4699,CHEM 4901-CHEM 4903, EAS 4651, EAS 4699, EAS 4900, MATH 4080, MATH 4090, MATH 4695, MATH 4699, MATH 4999, NEUR 4697, NEUR 4699, NEUR 4901, PHYS 4601, PHYS 4602, PHYS 4699, PSYC 4600, PSYC 4601, PSYC 4695,

PSYC 4697, PSYC 4699, PSYC 4900-PSYC 4910. All non-BIOS Experiential Learning courses are excluded from Breadth electives even if not explicitly listed here, including non-BIOS Seminars, Special Problems, Research, Internship, Teaching, and Reading courses.

- ³ CETL 2000 may be applied to free electives.
- ⁴ Pass-Fail allowed for Free Electives only. Refer to Institute Rules for maximum Pass-Fail Credits allowed.
- ⁵ PHYS 2211 and PHYS 2212 are Biology degree requirements and serve as prerequisites for other required courses in the degree. It is highly recommended that students complete these courses as the Lab Sciences courses for Core IMPACTS.

If they are not taken as Core IMPACTS courses, they are still required and must be taken for a letter grade and may count towards Free Electives.