

B.A. BIOLOGICAL SCIENCES 2022-2023

FRESHMAN YEAR

<u>First Semester</u>	<u>Second Semester</u>
BIOL 1010 Frontiers in Biol. I ¹1(1,0)	BIOL 1110 Prin. of Biol. II ²4(3,3)
BIOL 1100 Prin. of Biol. I ²4(3,3)	CH 1020 General Chemistry4(3,3)
CH 1010 General Chemistry4(3,3)	ENGL 1030 Composition and Rhetoric.....3(3,1)
MATH 1060 Calculus of One Var. I4(4,0)	Mathematical Sciences Requirement ⁴ <u>3</u>
SC REACH Act Requirement ³ <u>3</u>	14
16	

SOPHOMORE YEAR

CH 2230 Organic Chemistry ⁵3(3,0)	BCHM 3050 Essential Elements of Bioch. ⁹ 3(3,0)
CH 2270 Organic Chemistry Lab ⁵1(0,3)	Major Requirement ^{5,10} 4
GEN 3000 Fundamental Genetics ⁶3(3,0)	Modern Language Requirement ⁸ 4
Global Challenges Course Requirement ⁷3	Organismal Diversity Requirement ¹¹ <u>4</u>
Modern Language Requirement ⁸4	15
Oral Communication Requirement ⁷ <u>3</u>	
17	

JUNIOR YEAR

BIOL 3350 Evolutionary Biology3(3,0)	Arts and Humanities (Non-Lit) Req. ⁷3
BIOL 4610 Cell Biology.....3(3,0)	Ecology Requirement ¹³3
Minor Requirement ¹²3	Minor Requirement ¹²6
Modern Language Requirement ⁸3	Modern Language Requirement ⁸ <u>3</u>
Social Science Requirement ⁷ <u>3</u>	15
15	

SENIOR YEAR

BIOL 4930 Senior Seminar ¹⁴ or	PHYS 2080 General Physics II ¹⁷3(3,0)
MICR 4930 Senior Seminar ¹⁴2(2,0)	PHYS 2100 General Physics II Lab ¹⁷1(0,2)
PHYS 2070 General Physics I ¹⁵3(3,0)	Arts and Humanities (Literature) Req. ⁷3
PHYS 2090 General Physics I Lab ¹⁵1(0,2)	Minor Requirement ¹² <u>6</u>
Functional Biology Requirement ¹⁶3	13
Global Challenges Course Requirement ⁷3	
Social Science Requirement ⁷ <u>3</u>	
15	

Total Semester Hours = 120

- ¹ Students seeking a double major in Science Teaching/Biological Sciences should substitute ED 1050 for BIOL 1010.
- ² BIOL 1100 and BIOL 1110 are strongly recommended; however, BIOL 1030/1050 may substitute for BIOL 1100 and BIOL 1040/1060 may substitute for BIOL 1110.
- ³ See South Carolina REACH Act Requirement in the Academic Regulations section in the Undergraduate Catalog.
- ⁴ MATH 1080, STAT 2300, or other approved coursework. See advisor. Medical/dental schools have different mathematics requirements. Statistics will be useful in either graduate study or professional school.
- ⁵ CH 2010 and CH 2020 may be substituted. Most professional health sciences schools require two semesters of organic chemistry with laboratory, CH 2230/2270 and CH 2240/2280.
- ⁶ GEN 3020 may be substituted.
- ⁷ See General Education Requirements. The Medical Colleges Admissions Test (MCAT) includes questions on psychology and sociology.
- ⁸ Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement in Academic Regulations.
- ⁹ BCHM 3010 may be substituted.
- ¹⁰ Four credit hours must be selected from BIOL, ETOX or MICR courses at the 3000-level or above (except MICR 3000) or from CH 2240/2280, ENR 4130, WFB 3130, WFB 4720, or WFB 4770. Students seeking a double major in Science Teaching/Biological Sciences should substitute EDSC 4470 for the Major Requirement.
- ¹¹ At least one lecture and associated laboratory selected from BIOL 3010, BIOL 3020/BIOL 3060, BIOL 3030/BIOL 3070, BIOL 3040/BIOL 3080, BIOL 3200, BIOL 4060/BIOL 4070, BIOL 4250/BIOL 4260.
- ¹² See Minors.
- ¹³ At least one course selected from BIOL 4100, BIOL 4410, BIOL 4420, BIOL 4430, BIOL 4460, BIOL 4480, BIOL 4700, or MICR 4030.
- ¹⁴ Students seeking a double major in Science Teaching/Biological Sciences should substitute EDSC 4570 for BIOL 4930 or MICR 4930.
- ¹⁵ PHYS 1220/1240 may be substituted.
- ¹⁶ At least one course selected from selected from BIOL 3160, BIOL 4040, BIOL 4080, BIOL 4200, BIOL 4210, BIOL 4400, BIOL 4530, BIOL 4590, BIOL 4750, BIOL 4800, BIOL 4830, BIOL 4840, MICR 4140 or MICR 4170.
- ¹⁷ PHYS 2210/2230 may be substituted.

NOTE: A transfer course may not be used to satisfy the General Education Global Challenges Requirement. While a transfer course may fulfill other degree requirements, students must enroll in a Clemson course(s) on the Global Challenges list to fulfill the Global Challenges Requirement.

2022/2023 B.A. BIOLOGICAL SCIENCES CURRICULUM

BIOL Core Requirement: (29 cr.)	SEM/Yr	Grade
BIOL 1010	1(1,0) ¹	_____
BIOL 1100/1101	4(3,3) ²	_____
BIOL 1110/1111	4(3,3) ²	_____
BIOL 3350	3(3,0)	_____
BIOL 4610	3(3,0)	_____
BIOL 4930 OR MICR 4930	2(2,0) ³	_____
<i>Organismal Diversity Requirement (4 cr.)</i>		
BIOL 3010/3011, 3020/3060, 3030/3070, 3040/3080, 3200/3201, 4060/4070, OR 4250/4260		_____
<i>Ecology (3 cr.)</i>		
BIOL 4100, 4410, 4420, 4430, 4460, 4480, 4700, MICR 4030, OR 4040		_____
<i>Functional Biology Requirement (3 cr.)</i> ⁴		
BIOL 3160/3161, 4040, 4080, 4200, 4210, 4400, 4530, 4590, 4750, 4800, 4830, 4840, MICR 4140 OR MICR 4170		_____
Major Requirement: (4 cr.) ⁵		
_____		_____
Required Science Courses (33 cr.)		
BCHM 3050 (OR 3010)	3(3,0)	_____
CH 1010/1011	4(3,3)	_____
CH 1020/1021	4(3,3)	_____
CH 2230, 2270 OR CH 2010, CH 2020	3(3,0) & 1(0,3) ⁶	_____
GEN 3000 (OR 3020)	3(3,0)	_____
MATH 1060	4(4,0)	_____
MATH 1080 OR STAT 2300	4(4,0) 3(3,0) ⁷	_____
PHYS 2070, 2090	3(3,0) & 1(0,2) ⁸	_____
PHYS 2080, 2100	3(3,0) & 1(0,2) ⁸	_____
Required Non-Science Courses (35 cr.)		
ENGL 1030/1031	3(3,1)	_____
Arts & Humanities – Literature	3(3,0) ⁹	_____
Arts & Humanities – Non-Literature	3(3,0) ⁹	_____
Modern Language	4(3,1) ¹⁰	_____
Modern Language	4(3,1) ¹⁰	_____
Modern Language	3(3,0) ¹⁰	_____
Modern Language	3(3,0) ¹⁰	_____
Oral Communication	3(3,0) ⁹	_____
SC REACH Act	3(3,0) ¹¹	_____
Social Sciences		_____
_____	3(3,0) ^{9,12}	_____
_____	3(3,0) ^{9,12}	_____
Minor Courses (15 cr.) ¹⁴		
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____
_____		_____

- ¹ Students seeking a double major in Science Teaching and Biological Sciences should substitute ED 1050 for BIOL 1010.
- ² BIOL 1100 and BIOL 1110 are strongly recommended; however, BIOL 1030/1050 may substitute for BIOL 1100/1101 and BIOL 1040/1060 may substitute for BIOL1110/1111.
- ³ Students seeking a double major in Science Teaching/Biological Sciences should substitute EDSC 4570 for BIOL 4930 or MICR 4930.
- ⁴ Four credit hours must be selected from BIOL or MICR courses at the 3000 level or above (except MICR 3000) or CH 2240/CH 2280, ETOX 4300, ETOX 4370, WFB 4720, or WFB 4770. Students seeking a double major in Science Teaching/Biological Sciences should substitute EDSC 4470 for the Major Requirement.
- ⁵ Most medical, dental, and veterinary medicine schools require two semesters of organic chemistry with laboratory, CH 2230/2270 and 2240/2280.
- ⁶ Statistics will be useful in both graduate school and professional school.
- ⁷ Students may choose to take physics with calculus, PHYS 1220, 1240 (MATH 1060 pre-req) & PHYS 2210, 2230 (MATH 1080 pre-req).
- ⁸ See General Education Requirements.
- ⁹ Students must complete through 2020 in a modern language. See Modern Languages Requirement at Clemson University statement in Academic Regulations.
- ¹⁰ HIST 1010, POSC 1010, or POSC 1030
- ¹¹ The Medical Colleges Admissions Test (MCAT) includes questions on psychology and sociology.
- ¹² Minors as listed 2022-2023 Undergraduate Catalog.

Other Courses	SEM/Yr	Grade
CU 1000 _____	_____	_____
GCC _____	_____	_____
GCC _____	_____	_____
Electives		
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____