

College of Science - Biology, BS with Concentration in Environmental and Conservation Biology				
Catalog Year: 2019 - 2020			Grades	
Mason Core Requirements: 27 credits	Course Information	Credits	Earned	Needed
Written Communication:	ENGH 101 (100)	3		
Oral Communication:		3		
*Quantitative Reasoning	*Satisfied by Major Requirements			
*Information Technology	*Satisfied by Major Requirements			
Arts		3		
Global Understanding		3		
Literature		3		
*Natural Science	*Satisfied by Major Requirements			
Social & Behavioral Sciences		3		
Western Civilization/World History		3		
Written Communication:	ENGH 302	3		
Synthesis/Capstone		3		
Major Requirements (74-82 credits)				
A minimum GPA of 2.0 in the BIOL courses listed in the degree program. 44 credits in biology coursework				
Biology Core (21 credits) Minimum grade of C required in all BIOL core courses		Credits	Earned	Needed
BIOL 213	Cell Structure and Function	4		
BIOL 214	Biostatistics for Biology Majors	4		
BIOL 300	BioDiversity	4		
BIOL 308	Foundations of Ecology and Evolution	5		
BIOL 311	General Genetics	4		
Additional Supporting Courework (27 - 30 credits) A min GPA of 2.0 in the supporting courses in the degree program				
CHEM 211/213	General Chemistry I with Lab	3/1		
CHEM 212/214	General Chemistry II with Lab	3/1		
CHEM 313 & CHEM 315	Organic Chemistry I and Organic Chemistry Lab I	5		
One from the following Mason Core Natural Science sequences:				
PHYS 160/161 and 260/261	University Physics I & II with labs	8		
PHYS 243/244 & PHYS 245/246	College Physics I & II with labs			
CDS 130 or Any approved Mason Core IT req course		3		
One from the following: MATH 111, 113, 123/124		3-6		
Concentration in Environmental and Conservation Biology (26-31 credits in concentration)				
BIOL 318	Conservation Biology	3		
BIOL 377	Applied Ecology	3		
Concentration Electives (17 credits): BIOL 309, 314, 326, 331, 332, 344, 345, 350, 355, 378, 379, 437-440, 446, 449, 450, 454, 455, 457, 459, 468, 472 & 473, 480, 497		17		
Concentration Elective #1:				
Concentration Elective #2:				
Concentration Elective #3:				
Concentration Elective #4:				
Concentration Elective #5:				
Concentration Elective #6:				
CHEM 314 & 318	Organic Chemistry II with Lab II	5		
Additional Natural Science (3-8 credits): Option A, B, or C				
Option A: CHEM 314 & 318	Organic Chemistry I II with Lab			
Option B: One 3 credit chemistry course at the 300 or 400 level (not CHEM 314)				
Option C: GEOL 101 & 102	Introductory Geology I & Introductory Geology II			
Degree Notes				
Approx. 11-19 remaining credits may be completed with elective courses to bring the degree total to 120 with 45 of these credits at the 300/400 level. Students Expecting to Enter Graduate School are encouraged to complete: MATH 113 & 114				
Advisor Notes:				

BS BIOLOGY

For Students who have taken AP/IB biology regardless of AP/IB score

Starting with BIOL213

Fall (Semester 1)	Credits	Spring (Semester 2)	Credits
BIOL213	4	BIOL300	4
Mason Core	3	MATH	3-4
CHEM211, CHEM213	4	CHEM212, CHEM214	4
Mason Core	3	Mason Core	3
BIOL101 or Univ100	1		
TOTAL	15	TOTAL	14-15

Can take Biol214 with Biol213 first semester.

Fall (Semester 3)	Credits	Spring (Semester 4)	Credits
BIOL214	4	BIOL 311	4
Mason Core or MATH*	3-4	Mason Core	3
Chem 313	3	CHEM 314**	3
Chem 315	2	CHEM 318**	2
Mason Core	3	Mason Core	3-4
TOTAL	15-16	TOTAL	15-16

* 2nd math not required but many professional schools require 2 semesters calculus

** Can take 2 semesters GEOL or an >300 chemistry course instead

Fall (Semester 5)	Credits	Spring (Semester 6)	Credits
BIOL elective with lab	4	BIOL elective with lab	4
Mason Core	3-4	BIOL elective	3
Physics lecture	3	Physics lecture	3
Physics Lab	1	Physics lab	1
elective	3	Mason Core	3
TOTAL	15-16	TOTAL	14

Fall (Semester 7)	Credits	Spring (Semester 8)	Credits
BIOL308	5	BIOL elective	3
BIOL elective	3	BIOL elective	3
ENGH302	3	BIOL elective	3
Elective	3-4	Synthesis	3
		Elective	3
TOTAL	14-15	TOTAL	15

Note: need 22 credits biology elective. 2 courses with labs at >300 level. Can take Senior seminar as a biology elective. Need 120 credits to graduate

BS BIOLOGY
Starting with BIOL103

Fall (Semester 1)	Credits	Spring (Semester 2)	Credits
BIOL103	4	BIOL213	4
Mason Core	3	MATH	3-4
CHEM211, CHEM213	4	CHEM212, CHEM214	4
Mason Core	3	Mason Core	3
BIOL101 or Univ100	1		
TOTAL	15	TOTAL	14-15

Fall (Semester 3)	Credits	Spring (Semester 4)	Credits
BIOL214	4	BIOL300	4
Mason Core or MATH*	3-4	Mason Core	3
Chem 313	3	CHEM 314**	3
Chem 315	2	CHEM 318**	2
Mason Core	3	Mason Core	3
TOTAL	15-16	TOTAL	15

- 2nd math not required but many professional schools require 2 semesters calculus
- ** can take 2 semesters GEOL or an >300 chemistry course instead

Fall (Semester 5)	Credits	Spring (Semester 6)	Credits
BIOL elective with lab	4	BIOL elective with lab	4
Mason Core	3-4	BIOL311	4
Physics lecture	3	Physics lecture	3
Physics Lab	1	Physics lab	1
elective	3	Mason Core	3
TOTAL	14-15	TOTAL	15

Fall (Semester 7)	Credits	Spring (Semester 8)	Credits
BIOL308	5	BIOL elective	3
BIOL elective	3	BIOL elective	3-4
BIOL elective	3	Synthesis	3
Mason Core	3	Elective	3
		Elective	3
TOTAL	14	TOTAL	15-16

Note: need 22 credits biology elective. 2 courses with labs at >300 level. Can take Senior seminar as a biology elective. Need 120 credits to graduate