

**GEORGE MASON UNIVERSITY
COLLEGE OF SCIENCE
B.S. DEGREE IN BIOLOGY - CONCENTRATION IN MICROBIOLOGY
(1200 Exploratory Hall, 703-993-1050)
<http://biology.gmu.edu/>
2018 - 2019 CATALOG**

	<u>Department(s) & Course #(s)</u>	<u>Completed/ Grade(s)</u>	<u>Needed</u>
<u>MASON CORE REQUIREMENTS (27)</u>			
a. Written Communication: ENGH 101 (100), ENGH 302 (C or better) (3,3)		___ ___	___ ___
b. Oral Communication: COMM 100 or 101 (circle choice) (3)		_____	_____
c. Quantitative Reasoning (satisfied by completion of major requirements)			
d. Literature (3)	_____	_____	_____
e. Arts (3)	_____	_____	_____
f. Western Civilization (3)	_____	_____	_____
g. Social & Behavioral Science (3)	_____	_____	_____
h. Natural Science (satisfied by completion of major requirements)			
i. Global Understanding (3)	_____	_____	_____
j. Information Technology (satisfied by completion of major requirements)			
k. Synthesis (3)	_____	_____	_____

Go to: <http://catalog.gmu.edu/mason-core/> to link to information on Mason Core requirements.

MAJOR REQUIREMENTS Students must earn a minimum GPA of 2.0 in their Biology course work and a minimum GPA of 2.0 in supporting course work.

a. Twenty-two credits in biology core courses (22)			
1. BIOL 213 (4) (grade of C or better required to advance to other core requirements)		1. _____	_____
2. BIOL 214 (4) (grade of C or better required)		2. _____	_____
3. BIOL 311 (4) (grade of C or better required)		3. _____	_____
4. BIOL 308 (writing intensive course) (5) (grade of C or better required)		4. _____	_____
5. BIOL 310 (3) and BIOL 330 (2) (grade of C or better required)		5. _____	_____

Microbiology Concentration Courses

b. Twelve credits of microbiology courses (12)			
1. BIOL 305 (3)		1. _____	_____
2. BIOL 306 (1)		2. _____	_____
3. BIOL 405 (4)		3. _____	_____
4. BIOL 407 (4)		3. _____	_____
c. Ten credits chosen from: BIOL 314 (4), 382 (3), 385 (3), 402 (3), 403 (1), 404 (3), 418 (3), 420 (3), 452 (3), 453 (1), 459 (3), 483 (4) (circle choices) (6)			
d. Eighteen credits of chemistry (18)			
1. CHEM 211/213, CHEM 212/214 (4,4)		1. _____	_____
2. CHEM 313, CHEM 315 (3,2)		2. _____	_____
3. CHEM 314, CHEM 318 (3,2)		3. _____	_____
e. PHYS 243/244 and PHYS 245/246 or PHYS 160/161 and PHYS 260/261 (3/1, 3/1)		e. _____	_____
f. One course from (circle choice): MATH 111(3) or MATH 113 (4) or MATH 123 & 124 (3,3)		f. _____	_____
g. CDS 130 (recommended) or any course(s) that fulfills the IT Mason Core requirement (3)		g. _____	_____

NOTES: No more than eight credits of BIOL 103 or 106/107 may be applied toward elective credit (or equivalent transfer credit at the 100-200 level) if taken before successful completion of BIOL 213. Students may not count BIOL 124 and/or 125 toward any Biology major requirement, Students who take BIOL 310 may not count BIOL 303 and/or 304 toward any Biology major requirement.

GENERAL ELECTIVES: Maximum 2 credits of PHED, PRLS, and RECR coursework toward a COS degree. Only MLSC 400 and MLSC 402 may be used for credit towards a COS degree. (List courses)

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

MINIMUM 120 HOURS (including Minimum 45 UPPER DIVISION HOURS) to GRADUATE

This planning form is intended to be used in consultation with your academic advisor and reflects the requirements for the 2018-2019 Catalog; the University Catalog is the official reference for program requirements.

B.S. Biology

2018 - 2019

FALL YEAR 1	CREDITS	SPRING YEAR 1	CREDITS	NOTES
BIOL 213	4	BIOL 310	3	*Math Req =
CHEM 211	3	BIOL 330	2	MATH 111, 113 or
CHEM 213	1	MATH Req*	3 or 4	123/124 (two
Mason Core	3	CHEM 212	3	semesters).
Mason Core	3	CHEM 214	1	*BIOL 214 can be
UNIV 100	1	Mason Core	3	taken with 213 in
Total:	15 credits	Total:	15 or 16 credits	first semester.

FALL YEAR 2	CREDITS	SPRING YEAR 2	CREDITS	NOTES
BIOL 214	4	BIOL 311	4	
Mason Core	3	Mason Core	3	
CHEM 313	3	CHEM 314	3	
CHEM 315	2	CHEM 318	2	
Mason Core	3	Mason Core	3	
Total:	15 credits	Total:	15 credits	

FALL YEAR 3	CREDITS	SPRING YEAR 3	CREDITS	NOTES
BIOL 305	3	BIOL 405	4	*PHYS requirement
BIOL 306	1	Additional BIOL*	3 or 4	can be fulfilled by the
PHYS Lecture*	3	PHYS Lecture*	3	following sequences:
PHYS Lab	1	PHYS Lab	1	PHYS 160/161 and 260/
CDS 130	3	General Elective	3	261 OR PHYS 243/244
General Elective	3			and 245/246.
Total:	14 credits	Total:	14 or 15 credits	*Add. BIOL list is below.

FALL YEAR 4	CREDITS	SPRING YEAR 4	CREDITS	NOTES
BIOL 308	5	Synthesis	3	
BIOL 407	4	Additional BIOL*	3 or 4	
ENGH 302	3	General Elective	3	
Additional BIOL*	3 or 4	General Elective	3	
		General Elective	3	
Total:	15 or 16 credits	Total:	15 or 16 credits	

*THIS IS A SAMPLE PLAN. BECAUSE THE SEMESTERS WHEN CONCENTRATION REQUIREMENTS ARE OFFERED CAN VARY, IT IS BEST TO MAKE AN INDIVIDUAL DEGREE PLAN WITH A BIOLOGY ADVISOR.

*Students must earn 120 credits for graduation; 45 credits must be upper-level (courses 300+).

*Ten additional BIOL credits must be chosen from the following: BIOL 314 (4), BIOL 382 (3), BIOL 385 (3), BIOL 402 (3), BIOL 403 (1), BIOL 404 (3), BIOL 418 (3), BIOL 420 (3), BIOL 452 (3), BIOL 453 (1), BIOL 459 (3), BIOL 483 (4).