

**GEORGE MASON UNIVERSITY
COLLEGE OF SCIENCE**

B.S. DEGREE IN MEDICAL LABORATORY SCIENCE (1201 Exploratory Hall, 703-993-1572)

<http://biology.gmu.edu/>
2018 - 2019 CATALOG

	Department(s) & Course #(s)	Completed/ Grade(s)	Needed
<u>MASON CORE REQUIREMENTS (24)</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. Western Civilization (3)		___	___
f. Social & Behavioral Science (3)		___	___
g. Natural Science (satisfied by completion of major requirements)		___	___
h. Global Understanding (3)		___	___
i. Information Technology (satisfied by completion of major requirements)		___	___
j. Synthesis (3)		___	___

Because of the extensive pre-professional education requirements stipulated by NAACLS, students majoring in medical laboratory science are exempt from the Mason Core 'Arts' requirement. Go to:

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

MAJOR REQUIREMENTS (83-84 hours required) A minimum GPA of 2.0 is required in all major courses.

Biology Courses (28 credits)

a. BIOL 213 (4) (grade of C or better required)	a. _____	_____
b. BIOL 214 (4) (grade of C or better required)	b. _____	_____
c. BIOL 305, 306 (3,1)	c. _____	_____
d. BIOL 311 (4) (grade of C or better required)	d. _____	_____
e. BIOL 452, 453 (writing intensive course) (3,1)	e. _____	_____
f. BIOL 430 (4)	f. _____	_____
g. BIOL 431 (4)	g. _____	_____

Chemistry Courses (17-18)

h. CHEM 211/213 (3/1)	h. _____	_____
i. CHEM 212/214 (3/1)	i. _____	_____
j. CHEM 313 (3)	j. _____	_____
k. CHEM 315 (2)	k. _____	_____
l. Select one of the following: BIOL 483 (4) OR CHEM 314/318 (3, 2)	l. _____	_____
m. One of the following: MATH 111, 113, or both 123 and 124 (circle choice) (3-6)	m. _____	_____
n. CDS 130 (recommended) or any course that fulfills the IT Mason Core requirement (3)	n. _____	_____
Medical Technology Course Work (31)		
1. MLAB 200 (1)	1. _____	_____
2. MLAB 300 (writing intensive course) (2)	2. _____	_____

Thirty credits of course work are required including: MLAB 401, 402, 403, 404, 405, 406, and 407. The distribution of credits in these courses varies with the school of medical technology. No more than 30 professional credits may be applied toward the degree. **Students must complete the requirements outlined below, choosing one Professional Study/Concentration option:**

- Not choosing a concentration ("Professional Study: Generalist Option") will provide students generalist training. Upon graduation, the board certification test may be taken and would allow graduates to practice in any area of a hospital or laboratory.
- Choosing a concentration will allow students to complete their clinical rotations in that specific area. Upon graduation, the Molecular Biology or Microbiology (depending upon the concentration chosen) board certification test may be taken.
- The professional study during the senior year involves clinical education at an affiliated school of medical technology.

GENERAL ELECTIVES: (12 – 13 credits) 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. Medical Laboratory
Sciences

2018 - 2019

FALL YEAR 1	CREDITS	SPRING YEAR 1	CREDITS	NOTES
BIOL 213	4	BIOL 214	4	*If student started with
CHEM 211	3	CHEM 212	3	BIOL 103, take BIOL 213
CHEM 213	1	CHEM 214	1	in spring and BIOL 214
Mason Core*	3	Mason Core*	3	in summer to catch up
MATH** or Core	3	CDS 130	3	
UNIV 100	1			
Total:	15 credits	Total:	14 credits	
FALL YEAR 2	CREDITS	SPRING YEAR 2	CREDITS	NOTES
BIOL 311	4	BIOL 305	3	
CHEM 313	3	BIOL 306	1	
CHEM 315	2	CHEM 314	3	
Mason Core*	3	CHEM 318 OR	2	
Mason Core*	3	BIOL 483	5	
MLAB 200	1	Mason Core*	3	
		Mason Core*	3	
Total:	16 credits	Total:	15 credits	
FALL YEAR 3	CREDITS	SPRING YEAR 3	CREDITS	NOTES
BIOL 430	4	BIOL 431	4	*Apply to CL schools
BIOL 452	3	Mason Core*	3	And MLAB affiliated
BIOL 453	1	Synthesis*	3	programs during fall
ENGH 302	3	BIOL Elective	3	of Year 3.
Mason Core*	3	MLAB 300	2	
General Elective	1			
Total:	15 credits	Total:	15 credits	
FALL YEAR 4	CREDITS	SPRING YEAR 4	CREDITS	NOTES
MLAB School		MLAB School		*MLAB School
Full Time		Full Time		Full Time for 6
				credits during
				summer after 4th
				year.
Total:	12 credits	Total:	12 credits	

*3+1 Regular Tract indicates that the student will take coursework at Mason for 3 years followed by one year of an off-campus internship.

*Students must earn 120 credits for graduation; 45 credits must be upper-level (courses 300+). The *Total Credits to Graduate* calculated above are likely minimums because many students need to take a few extra courses to meet requirements, or start out in another major and change to MLAB and need prerequisite courses. Transfer students who don't take the correct courses at VCCS schools (e.g. NVCC) will often need to take more credit hours here to get the correct courses.

*BIOL 305/306 (Microbiology) and BIOL 311 (Genetics) must be taken before the student takes BIOL 452/453 (Immunology). All of these courses are needed before the student enters the GWU CLS Program, based on the courses listed in that first semester. Those course could be taken together in the fall, and the GenEd listed there could be taken then or some other time because that will be a very full semester with two biology courses and a chemistry course!

*In the first semester, students should take Cell Biology (BIOL 213) if they are strong in this subject or took it in high school. Otherwise, students should take BIOL 103 their first semester if their biology experience is not recent.

*Mason Core requirements can be found at catalog.gmu.edu.

*The MATH requirement can be fulfilled by MATH 111, MATH 113, or MATH 123/124, depending on results of the math placement test.

*BIOL 430/431 OR BIOL 124/125 must be taken during the third year of study!

*MLAB 200 may be taken during the fall semester of the first, second, or third year (second year is best).

B.S. Medical Laboratory Sciences

2018 - 2019

FALL YEAR 1	CREDITS	SPRING YEAR 1	CREDITS	NOTES
BIOL 213	4	BIOL 214	4	*If student started with
CHEM 211	3	CHEM 212	3	BIOL 103, take BIOL 213
CHEM 213	1	CHEM 214	1	in spring and BIOL 214
Mason Core*	3	Mason Core*	3	in summer to catch up
MATH** or Core	3	CDS 130	3	
UNIV 100	1			
Total:	15 credits	Total:	14 credits	
FALL YEAR 2	CREDITS	SPRING YEAR 2	CREDITS	NOTES
BIOL 311	4	BIOL 305	3	
CHEM 313	3	BIOL 306	1	
CHEM 315	2	CHEM 314	3	
Mason Core*	3	CHEM 318 OR	2	
Mason Core*	3	BIOL 483	5	
MLAB 200	1	Mason Core*	3	
		Mason Core*	3	
Total:	16 credits	Total:	15 credits	
FALL YEAR 3	CREDITS	SPRING YEAR 3	CREDITS	NOTES
BIOL 430	4	BIOL 431	4	
BIOL 452	3	Mason Core*	3	
BIOL 453	1	Synthesis*	3	
ENGH 302	3	BIOL Elective	3	
Mason Core*	3	MLAB 300	2	
General Elective	1			
Total:	15 credits	Total:	15 credits	
FALL YEAR 4	CREDITS	SPRING YEAR 4	CREDITS	NOTES
BIOL 308	5	BIOL 310	3	*Begin applying
PHYS 243/244	4	BIOL 330	2	to MLAB programs
BIOL Elective	2	PHYS 245/246	4	during Year 4.
General Elective	3	General Elective	3	*Attend CL School
		General Elective	2	Full-time during
Total:	14 credits	Total:	12 credits	summer of Year 4.

FALL YEAR 5	CREDITS	SPRING YEAR 5	CREDITS	NOTES
MLAB School		MLAB School		*MLAB School
Full Time		Full Time		Full Time during
				Summer after Year
				5 (6 credits)
Total:	12 credits	Total:	12 credits	

*4+1Tract indicates that the student will take coursework at Mason for 4 years followed by one year of an off-campus internship.

*Students must earn 120 credits for graduation; 45 credits must be upper-level (courses 300+). The *Total Credits to Graduate* calculated above are likely minimums because many students need to take a few extra courses to meet requirements, or start out in another major and change to MLAB and need prerequisite courses. Transfer students who don't take the correct courses at VCCS schools (e.g. NVCC) will often need to take more credit hours here to get the correct courses.

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*Mason Core requirements can be found at catalog.gmu.edu.

*The MATH requirement can be fulfilled by MATH 111, MATH 113, or MATH 123/124, depending on results of the math placement test.

*BIOL 430/431 OR BIOL 124/125 must be taken during the third year of study!

*MLAB 200 may be taken during the fall semester of the first, second, or third year (second year is best).

*The summer spent at the CL school is worth 7 credits.