

B.S. IN MEDICAL LABORATORY SCIENCE (MLS.BS)

Code	Title	Credits
Major Requirements/Laboratory Science (45 credits)		
CE-111	General Chemistry I	3
CE-111R	General Chemistry I Recitation	1
CE-111L	General Chemistry I Laboratory	1
CE-112	General Chemistry II	3
CE-112R	General Chemistry II Recitation	1
CE-112L	General Chemistry II Laboratory	1
CE-241	Organic Chemistry I	3
CE-241L	Organic Chemistry I Laboratory	1
CE-242	Organic Chemistry II	3
CE-242L	Organic Chemistry II Laboratory	1
CE-221	Analytical Chemistry I Quantitative Analysis	3
CE-221L	Analytical Chemistry I Laboratory Quantitative Analysis	1
BY-110	Introduction to Cell and Molecular Biology	4
BY-211	Physiology with Anatomy I	4
BY-212	Physiology with Anatomy II	4
BY-223	General Microbiology	4
CE-333	Biochemistry	3
CE-333L	Biochemistry Laboratory	1
BY-431	Immunology	3
<i>(Science courses satisfy Natural Science (NS) in General Education)</i>		
Interdisciplinary Requirements (6-7 credits)		
One of the following three courses		3-4
MA-115	Pre-Calculus Modeling for the Biological Sciences ¹	
MA-116	Calculus for the Biological Sciences	
MA-125	Calculus with Analytic Geometry I	
and		
MA-151	Statistics with Applications	3
<i>Each of the above satisfy Mathematics in General Education)</i>		
Professional Credits (32 credits)^{2, 3}		
ML-411	Clinical Internship in Medical Laboratory Science I ³	16
ML-412	Clinical Internship in Medical Laboratory Science II	16
Free Electives (1 credits)⁴		
Select 1 Free Elective Credit ⁴		1
General Education Requirements (36 credits)⁵		
Complete 36 credits as outlined on the General Education table. ⁵		36
Total Credits		120-121

- ¹ MA-116 Calculus for the Biological Sciences (3 cr.) or MA-125 Calculus with Analytic Geometry I (4 cr.) are taken by student who score 4 on the Math Placement Exam.
- ² Completion of collegiate work prescribed by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) is followed by an eleven month training period in a NAACLS-approved hospital program. Successful completion qualifies graduates to take the American Society of Clinical Pathologists (ASCP) Board Certificate Exam.
- ³ ML-411 will partially complete Writing Intensive (WT) requirement in General Education Requirements.
- ⁴ Please consult with your advisor regarding the required number of free electives that must be completed.
- ⁵ The General Education curriculum requires the completion of 45 credits. However, students may be able to share credits from within their major or interdisciplinary requirements. Please consult with your advisor to determine which General Education (<https://catalog.monmouth.edu/undergraduate-catalog/academic-programs-support-services-regulations/general-education-requirements/>) courses must be completed. The order given in the sequence charts for Gen*Ed courses is advisory. Students may change the order of those course to suit their interests.
- ⁶ Students can take BY-216 in place of IT-102 but there will be an additional credit since BY-216 is a 4-credit course. Students are therefore encouraged to consult their advisors.

Notes

- 54 credits must be completed at the 200 level or higher.

B.S. in Medical Laboratory Science Sequence Chart

First Year			
Fall	Credits	Spring	Credits
CE-111 General Chemistry I		3 CE-112 General Chemistry II	3
CE-111R General Chemistry I Recitation	1	CE-112R General Chemistry II Recitation	1
CE-111L General Chemistry I Laboratory	1	CE-112L General Chemistry II Laboratory	1
Mathematics Interdisciplinary Course (see curriculum chart)	3-4	BY-110 Introduction to Cell and Molecular Biology	4
EN-101 College Composition I	3	EN-102 College Composition II	3
IT-102 Information Technology for Scientists ⁶	3	Gen*Ed Historical Persp	3
Semester Credits		14-15 Semester Credits	15
Second Year			
Fall	Credits	Spring	Credits
CE-241 Organic Chemistry I	3	CE-242 Organic Chemistry II	3
CE-241L Organic Chemistry I Laboratory	1	CE-242L Organic Chemistry II Laboratory	1
BY-211 Physiology with Anatomy I	4	BY-212 Physiology with Anatomy II	4
Gen*Ed Literature	3	MA-151 Statistics with Applications	3
Gen*Ed Historical Persp. or Social Science	3	Gen*Ed Social Science	3
Semester Credits		14 Semester Credits	14
Third Year			
Fall	Credits	Spring	Credits
BY-223 General Microbiology	4	CE-221 Analytical Chemistry I Quantitative Analysis	3
CE-333 Biochemistry	3	CE-221L Analytical Chemistry I Laboratory Quantitative Analysis	1

CE-333L Biochemistry Laboratory	1	BY-431 Immunology	3
Gen*Ed World Language	3	Gen*Ed Interdisciplinary Perspectives	3
Gen*Ed Aesthetics	3	Gen*Ed Cultural Diversity or Global Understanding	3
Free Elective Credits	1	Gen*Ed Reasoned Oral Discourse	3

Semester Credits	15	Semester Credits	16
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Fourth Year

Fall	Credits	Spring	Credits
ML-411 Clinical Internship in Medical Laboratory Science I	16	ML-412 Clinical Internship in Medical Laboratory Science II	16

Semester Credits	16	Semester Credits	16
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Total Credits 120-121