

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

Code	Title	Credits
<b>Major Requirements/Laboratory Science (43 credits)</b>		
CE-111	General Chemistry I	3
CE-111L	General Chemistry Laboratory I	1
CE-112	General Chemistry II	3
CE-112L	General Chemistry Laboratory II	1
CE-221	Analytical Chemistry I Quantitative Analysis	3
CE-221L	Analytical Chemistry I Laboratory Quantitative Analysis	1
CE-241	Organic Chemistry I	3
CE-241L	Organic Chemistry Laboratory I	2
CE-242	Organic Chemistry II	3
BY-310	Biochemistry and Lab	4
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
BY-431	Immunology	3
<i>(Science courses satisfy Natural Science (NS) in General Education)</i>		
<b>Interdisciplinary Requirements (6-7 credits)</b>		
One of the following three courses		3-4
MA-115	Pre-Calculus Modeling for the Biological Sciences <sup>1</sup>	
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>		
<b>Professional Credits (32 credits)<sup>2, 3</sup></b>		
ML-411	Clinical Internship in Medical Laboratory Science I <sup>3</sup>	16
ML-412	Clinical Internship in Medical Laboratory Science II	16
<b>Free Electives (3 credits)<sup>4</sup></b>		
Select up to 3 credits of Free Electives <sup>4</sup>		3
<b>General Education Requirements (36 credits)<sup>5</sup></b>		
Complete 36 credits as outlined on the General Education table. <sup>5</sup>		36
<b>Total Credits</b>		<b>120-121</b>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> ML-411 will partially complete Writing Intensive (WT) requirement in General Education Requirements.

<sup>4</sup> Please consult with your advisor regarding the required number of free electives that must be completed.

<sup>5</sup> 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 (<http://catalog.monmouth.edu/undergraduate-catalog/academic-programs-support-services-regulations/general-education-requirements/>) courses must be completed.

## 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-111L General Chemistry Laboratory I	1	CE-112L General Chemistry Laboratory II	1
EN-101 College Composition I	3	BY-110 Introduction to Cell and Molecular Biology	4
Mathematics Interdisciplinary Course (see curriculum chart)	3-4	IT-102 Information Technology for Scientists	3
Gen*Ed Social Science	3	EN-102 College Composition II	3
Semester Credits		13-14 Semester Credits	
<b>Second Year</b>			
Fall	Credits	Spring	Credits
CE-241 Organic Chemistry I	3	CE-242 Organic Chemistry II	3
CE-241L Organic Chemistry Laboratory I	2	BY-212 Physiology with Anatomy II	4
BY-211 Physiology with Anatomy I	4	MA-151 Statistics with Applications	3
Gen*Ed Literature	3	Gen*Ed Historical Persp. or Social Science	3
Gen*Ed Historical Persp	3	Gen*Ed Reasoned Oral Discourse	3
Semester Credits		15 Semester Credits	
<b>Third Year</b>			
Fall	Credits	Spring	Credits
BY-223 General Microbiology	4	BY-431 Immunology	3
BY-310 Biochemistry and Lab	4	Gen*Ed Interdisciplinary Perspectives	3
Gen*Ed World Language	3	Gen*Ed Cultural Diversity or Global Understanding	3
Gen*Ed Aesthetics	3	CE-221 Analytical Chemistry I Quantitative Analysis	3
		CE-221L Analytical Chemistry I Laboratory Quantitative Analysis	1
		Free Electives	3
Semester Credits		14 Semester Credits	

**Fourth Year**

<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
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			