

THE UNIVERSITY OF RHODE ISLAND

Medical Laboratory Science - BS

EL_CLSC_BS

120 Earned Credits Total

Student: _____

Student ID: _____

Advisor: _____

ABOUT THE BS in MEDICAL LABORATORY SCIENCE:

The Medical Laboratory Science major is concerned with the diagnosis, treatment, and prevention of disease using analytical methods in the clinical laboratory. The clinical program includes lecture and laboratory instruction in clinical chemistry, clinical microbiology, hematology, immunology, immunohematology and molecular pathology, and prepares the student for the national certification examinations and state licensure. web.uri.edu/cmb/academics/medical-laboratory-science-b-s/

Step 1: REVIEW YOUR PROGRAM REQUIREMENTS

INTRODUCTION Requirement: (2 credits)

Course	Semester	Credits	Grade
MLS 102		1	
URI 101		1	

BIOLOGY Requirement: (16 credits)

Course	Semester	Credits	Grade
*BIO 101		3	
*BIO 103		1	
*BIO 102		3	
*BIO 104		1	
BIO 220		3	
BIO 221		1	
BIO 222		3	
BIO 223		1	

CHEMISTRY Requirement: (12 credits)

Course	Semester	Credits	Grade
*CHM 101		3	
CHM 102		1	
CHM 112		3	
CHM 114		1	
CHM 124		3	
CHM 126		1	

MATH Requirement: (7-8 credits)

Select 1 of the following sequences:

Course	Semester	Credits	Grade
*MTH 111		3	
STA 308		4	
OR			
*MTH 131/141		3-4	
STA 307/308		4	

PHYSICS Requirement: (4 credits)

Course	Semester	Credits	Grade
*PHY 111		3	
*PHY 185		1	

CMB and MLS CONCENTRATION COURSES (20 credits)

Course	Semester	Credits	Grade
CMB 201 + CMB 202, or *CMB 211		4	
CMB 311		3	
CMB 333		3	
CMB 352		4	
MLS 360		3	
*MLS 483		3	

PROFESSIONAL ELECTIVE COURSES (6 credits)

6 credits from the following: BIO 331, CMB 312, 320, 332, 334, 341, 353, 432, 435, 437, 491, PHP 405

Course	Semester	Credits	Grade

**MLS CLINICAL INTENSIVE PROGRAM COURSES (32 credits)

Course	Semester	Credits	Grade
MLS 405		2	
MLS 409		4	
MLS 411		4	
MLS 413		2	
MLS 415		3	
MLS 451		2	
MLS 406		2	
MLS 410		4	
MLS 412		4	
MLS 414		2	
MLS 416		3	

FREE ELECTIVES:

Course	Semester	Credits	Grade

*Course approved for general education.

****Important Note:** The senior year Clinical Intensive Program (MLS 405-451) has limited placements and acceptance is competitive. Application to the MLS admissions committee occurs at the beginning of the junior year; a minimum overall GPA and math/science GPA of ≥ 2.5 is required to be considered for the application process. The actual minimal GPA required for acceptance may be higher than 2.5; it is dependent upon the number of applicants and the number of Clinical Intensive Program placements. Students who do not meet the minimum 2.5 requirement to apply, or who are not accepted into the Clinical Intensive Program are advised to meet with an academic or professional advisor to determine a new course of study.

THE UNIVERSITY OF RHODE ISLAND

Medical Laboratory Science - B.S.

120 Earned Credits Total

Student:

Student ID:

Advisor:

General Education Guidelines:

General education is 40 credits. Each of the twelve outcomes (A1-D1) must be met by at least 3 credits. A single course may meet more than one outcome, but cannot be double counted towards the 40 credit total. At least one course must be a Grand Challenge (G). No more than twelve credits can have the same course code. General education courses may also be used to meet requirements of the major or minor when appropriate.

LIST COURSES THAT MEET GENERAL EDUCATION:

General Education Credit Count						
At least 40 credits, no more than 12 credits with the same course code						
Course	Credits	Grade		Course	Credits	Grade
				Total Gen Ed Credits		

NOTE: BECAUSE MOST COURSES MEET MORE THAN ONE OUTCOME, YOUR OUTCOME AUDIT MIGHT BE COMPLETED BEFORE YOU REACH YOUR 40 CREDITS. HOWEVER, YOU MUST STILL COMPLETE 40 CREDITS OF GENERAL EDUCATION

***course fulfills general education and a major requirement**

LIST COURSE AS EACH OUTCOME IS MET:

General Education Outcome Audit		
	Course	Grade
KNOWLEDGE		
A1. STEM		
A2. Social & Behavioral Sciences		
A3. Humanities		
A4. Arts & Design		
COMPETENCIES		
B1. Write effectively		
B2. Communicate effectively		
B3. Mathematical, statistical, or computational strategies		
B4. Information literacy		
RESPONSIBILITIES		
C1. Civic knowledge & responsibilities		
C2. Global responsibilities		
C3. Diversity & Inclusion		
INTEGRATE & APPLY		
D1. Ability to synthesize		
GRAND CHALLENGE		
G. At least one course of your 40 credits is an approved "G" course		

The requirement for transfer to CELS out of University College for Academic Success:

Minimum 24 credits and cumulative 2.0 GPA.

Advising Notes:

Minimum 2.0 cumulative GPA required in major for graduation.

Minimum 2.0 cumulative GPA required in major for graduation.

Effective 2025-2026

B.S. Medical Laboratory Science
Sample 4 Year Plan - Effective Fall 2025
College of The Environment and Life Sciences

Freshman Year *Fall* Semester

Course Code	Description	Cr	Cum Cr
URI 101	Planning for Academic Success	1	
*BIO 101/103	Principles of Biology I/Lab	4	
*CHM 101/102	General Chemistry I/Lab	4	
*MTH 111 OR 131	Precalculus or Applied Calculus I	3	
	*General Education Course	3-4	
		15-16	15-16

Freshman Year *Spring* Semester

Course Code	Description	Cr	Cum Cr
*BIO 102/104	Principles of Biology II/Lab	4	
*CHM 112/114	General Chemistry II/Lab	4	
MLS 102	Intro to Clinical Lab Sci	1	
STA 307 OR 308	Intro. Statistics or Intro. Biostatistics	4	
	*General Education Course	3-4	
		16-17	31-33

Year 1 Milestones: Complete **BIO** 101/103, 102/104, **CHM** 112/114, **MLS** 102, **MTH** 111 OR 131 and **STA** 307 OR 308. Earn 30 credits with a cumulative GPA of 2.0 or higher.

Sophomore Year *Fall* Semester

Course Code	Description	Cr	Cum Cr
BIO 220/221	Anatomy & Physiology I lecture/lab	4	
CHM 124	Intro. to Organic Chemistry	3	
CHM 126	Lab for CHM 124	1	
*PHY 111/185	General Physics I, Lab	4	
	*General Education Course	3-4	
		15-16	46-49

Sophomore Year *Spring* Semester

Course Code	Description	Cr	Cum Cr
BIO 222/223	Anatomy & Physiology II lecture/lab	4	
CMB 201 + 202 OR *CMB 211	Introductory Medical Microbiology OR Integrative Microbiology	4	
MLS 360	Fundamentals of the Medical Laboratory	3	
	*General Education Course	3-4	
		14-15	60-64

Year 2 Milestones: Complete **CMB** 201 + 202 OR **CMB** 211, **BIO** 220/221, 222/223, **CHM** 124/126, **MLS** 360 and **PHY** 111/185. Meet with a MLS Faculty advisor to discuss research/internship opportunities and plan year 3 and 4 courses. Earn 60 total credits with a cumulative GPA of 2.5 or higher.

Junior Year *Fall* Semester

Course Code	Description	Cr	Cum Cr
CMB 333	Immunology & Serology	3	
MLS 483	Intro Diagnostic Microbiology	3	
	Professional Elective Course	3	
	*General Education Course	3-4	
	*General Education Course	3-4	
		15-17	75-81

Junior Year *Spring* Semester

Course Code	Description	Cr	Cum Cr
CMB 352	General Genetics	4	
CMB 311	Introductory Biochemistry	3	
	Professional Elective Course	3	
	*General Education or Elective	3-4	
	*General Education or Elective	3-4	
		16-18	91-99

Year 3 Milestones: Complete **CMB** 333, 311, 352, **MLS** 483 and 6 credits of professional electives. Apply for placement in the Clinical Intensive Program during the fall semester. Meet with a MLS Faculty advisor to discuss year 4 courses. Earn 90 total credits with a cumulative GPA of 2.5 or higher. Prepare intent to graduate with faculty advisor for Fall submission.

Senior Year *Fall* Semester

Course Code	Description	Cr	Cum Cr
MLS 405	Molecular Pathology	2	
MLS 409	Clinical Microbiology I	4	
MLS 411	Clinical Chemistry I	4	
MLS 413	Immunohematology I	2	
MLS 415	Hematology I	3	
MLS 451	Prof Topics in Clin Lab Science	2	
		17	108-116

Senior Year *Spring* Semester

Course Code	Description	Cr	Cum Cr
MLS 406	Clinical Immunology	2	
MLS 410	Clinical Microbiology II	4	
MLS 412	Clinical Chemistry II	4	
MLS 414	Immunohematology II	2	
MLS 416	Hematology II	3	
		15	123-131

Year 4 Milestones: Complete **MLS** Clinical Intensive Program. Earn total 120 credits with a cumulative GPA of 2.5 or higher. Minimum 2.5 cumulative GPA in **CMB/MLS** concentration courses.