

# B.S. Medical Laboratory Science

## Program Admissions Requirements

Code	Title	Credits
MATH 1153	Statistical Reasoning	3
<b>Choose one of the following MATH courses:</b>		<b>3</b>
MATH 1143	College Algebra	
MATH 1147	College Algebra and Trigonometry	
MATH 1160	Survey of Calculus	
MATH 1170	Calculus I	
BIOL 1101 & 1101L	Biology I and Biology I Lab	4
BIOL 1102 & 1102L	Biology II and Biology II Lab	4
BIOL 2206 & BIOL 2207	Cell Biology and Cell Biology Laboratory	4
<b>Choose one of the following:</b>		<b>4</b>
BIOL 2235 & 2235L	General Microbiology and General Microbiology Lab	
BIOL 2221 & 2221L	Introductory Microbiology and Introductory Microbiology Laboratory	
<b>Choose one of the following:</b>		<b>4</b>
BIOL 3301 & 3301L	Advanced Human Anatomy and Physiology 1 and Advanced Human Anatomy and Physiology 1 Lab	
BIOL 2227 & 2227L	Human Anatomy and Physiology 1 and Human Anatomy and Physiology 1 Lab	
BIOL 3302 & 3302L	Advanced Human Anatomy and Physiology 2 and Advanced Human Anatomy and Physiology 2 Lab	4
BIOL 3358	Genetics	3
BIOL 4451	Immunology	3
<b>Choose one of the following:</b>		<b>3</b>
BIOL 2229	Introduction to Pathobiology	
BIOL 4463	Human Pathophysiology	
CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	5
CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	4
Choose an additional 7 credits of CHEM courses not including CHEM 1100.		7

**All General Education and Program Admissions requirements must be completed with a 2.50 GPA, with no grade lower than a C-.**

## General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MATH 1153		3
Objective 4		6
Objective 5 - BIOL 1101/BIOL 1101L and CHEM 1111		8
Objective 6		6
<b>Students must fulfill Objective 7 or Objective 8</b>		<b>3</b>
Objective 7		
Objective 8		
Objective 9		3
Total Credits		38

## Major Requirements

Code	Title	Credits
MLS 4410	Phlebotomy Practicum	1
MLS 4412	Urinalysis and Body Fluids	1
MLS 4414	Hematology and Hemostasis	3
MLS 4416	Medical Microbiology I	3
MLS 4418	Medical Chemistry and Instrumentation	3
MLS 4420	Medical Immunology	2
MLS 4422	Basic Concepts in Transfusion Medicine	2
MLS 4424	Medical Laboratory Fundamentals	1
MLS 4431	Medical Microbiology II	3
MLS 4433	Medical Laboratory Science Management and Education	2
MLS 4435	Molecular Diagnosis	3
MLS 4437	Critical Analysis of Lab Information	3
MLS 4439	Advanced Concepts in Transfusion Medicine	2
MLS 4441	MLS Research <sup>1</sup>	1
MLS 4455	MLS Student Laboratory Practices	2
MLS 4491	Microbiology Practicum <sup>2</sup>	2
MLS 4492	Hematology and Urinalysis Practicum <sup>2</sup>	2
MLS 4493	Transfusion Blood Bank Practicum <sup>2</sup>	1
MLS 4494	Chemistry and Automation Practicum <sup>2</sup>	1
Total Credits		38

<sup>1</sup> This is a 1-credit course that may be taken for up to 3 credits. Only 1 credit is required for graduation.

<sup>2</sup> A total of 6 credits of Practicum experiences (minimum of 480 hours) is required to be eligible to take Board of Certification (BOC) national examinations. This requirement is fulfilled by an MLS student taking MLS 4491, MLS 4492, MLS 4493 and MLS 4494. One (1) credit of Practicum experience (80 hours) is required for a B.S. in Medical Laboratory Science but the graduate will NOT be eligible for BOC national certification. This requirement may be fulfilled by an MLS student taking MLS 4490.

## **Degree Totals**

<b>Code</b>	<b>Title</b>	<b>Credits</b>
	Program Admission Requirements (w/o General Education)	44
	General Education	38
	Major Requirements (w/o General Education)	38
	Upper Division Free Electives	0
	Free Electives	0
	<hr/> Total Credits	120

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degerequirements/>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/>)

Major Academic Plan (MAP) (<https://www.isu.edu/advising/maps/>)