

MEDICAL LABORATORY SCIENCE OPTION (2012) Plan A (3+1 PROGRAM)

Freshman Year	F	S
BIOB 160—Principles of Living Systems (or) BIOB 260	4	
BIOH 201--Anatomy & Physiol I		5
CHMY 141--College Chemistry I	4	
CHMY 143--College Chemistry II		4
BIOM 101--Careers in Microbiology	1	
University Core and Electives	6	6
	15	15
Sophomore Year	F	S
BCH 380--Biochemistry		5
BIOH 211--Anatomy & Physiol II	4	
CHMY 211--Elements of Organic Chemistry	5	
BIOM 360--General Microbiology		5
STAT 216Q--Introduction to Statistics		3
University Core and Electives	6	2
	15	15
Junior Year	F	S
BIOB 410--Immunology	3	
BIOB 411--Immunology Laboratory	2	
BIOM 435--Virology	3	
BIOH 405--Hematology	3	
BIOH 406--Hematology Laboratory	1	
BIOM 497—Educational Methods: Microbiology		2
<i>Take one of the following two choices:</i>		
BIOB 450--Microbial Physiology (or)	(3)	
BIOB 410--Microbial Genetics		(3)
BIOM 431--Medical Bacteriology		3
BIOM 432--Medical Bacteriology Lab		2
BIOM 441--Eukaryotic Pathogens		4
University Core and Electives	0 or 3	1 or 4
	15	15
Suggested Electives (some taught alternating years)		
BIOB 415--Microbial Diversity, Ecol & Evol (3 cr.) (or)		
BIOM 430--Applied and Environ Microbiology (4 cr.)		
BIOB 428--Molecular Evolution (3 cr.)		
BIOM 455--Research Methods in Microbiology (4 cr.)		
BIOH 340--Histology (3 cr.)		

Senior Professional Year Montana Medical Laboratory Science Training Program

Students with a 2.5 GPA or higher can apply for a senior year of professional training. They will obtain a degree in Microbiology/Medical Laboratory Science option from MSU-Bozeman. Total credits for graduation are 128; 42 of these credits must be in courses numbered 300 and above; and 32 of those credits must be in the distributed University Core. Note: Additional credits are required for this option because students take an additional summer session of courses. This additional semester is necessary because professional training programs approved by the National Accrediting Agency for Clinical Laboratory Standards (NAACLS) are twelve months in duration and not nine.

The following courses are required in the program:

If attend Sacred Heart Medical Center (Spokane) or Colorado Center for MLS (Denver):

BIOH 470- Summer Clinical Practicum - 12 credits Clinical Immunohematology I; Clinical Chemistry Theory; Clinical Laboratory I; Clinical Hemostasis; Clinical Microscopy and Urinalysis; Clinical Body Fluids; Clinical Immunohematology Theory; Clinical Microbiology Theory and Laboratory

BIOH 471- Professional Training I - Fall Semester (Training Site) - 13 credits. Clinical Immunohematology II; Clinical Chemistry I; Clinical Hematology I; Clinical Laboratory II; Clinical Microbiology I; Clinical Laboratory III; Clinical Immunology; Medical Mycology

BIOH 472- Professional Training II - Spring Semester (Training Site) - 12 credits. Financial and Quality Management of the Clinical Laboratory; Clinical Chemistry II; Clinical Immunohematology III; Clinical Microbiology II; Clinical Hematology II

If attend the Montana Medical Laboratory Science Training Program:

Summer Semester

BIOH 464 Clinical Hematology and Body Fluids	2 credits
BIOH 466 Clinical Microbiology I	3 credits
BIOH 467 Clinical Chemistry I	3 credits
BIOH 468 Clinical Immunohematology I	2 credits
BIOH 469 Essentials of Clinical Laboratory Practice	<u>2 credits</u>
Total:	12 credits

Fall Semester

BIOH 473 Laboratory Practice II	1 credit
BIOH 474 Clinical Hematology II	2 credits
BIOH 475 Hemostasis	1 credit
BIOH 476 Clinical Microbiology II	3 credits
BIOH 477 Clinical Chemistry and Urinalysis II	3 credits
BIOH 478 Clinical Immunohematology II	2 credits
BIOH 479 Clinical Immunology/Serology	<u>1 credit</u>
Total:	13 credits

Spring Semester

BIOH 482 Laboratory Practice III	2 credits
BIOH 484 Clinical Hematology III	2 credits
BIOH 486 Clinical Microbiology III and Molecular Diagnostics	3 credits
BIOH 487 Clinical Chemistry III	2 credits
BIOH 488 Clinical Immunohematology III	2 credits
BIOH 489 Laboratory Management	<u>1 credit</u>
Total:	12 credits