

Medical Laboratory Science- Bachelor of Science

For information, contact the Department of Microbiology, 212 Pearson Hall, 513-529-5422.

This program is for students who are preparing for the national examination, including sections on key lab specialties such as molecular biology, biochemistry, toxicology, microbiology, parasitology, immunology, immunohematology (blood bank) and hematology, for certification as Medical Laboratory Scientists (MLS) by the American Society for Clinical Pathology (ASCP).

Special Curriculum Requirements

This program requires 124 semester hours. Required courses include a twelve month, 32 credit medical laboratory internship. No pre-internship science or related course may be taken on a credit/no-credit basis.

Program Requirements

(75-85 semester hours)

Code	Title	Credit Hours
Core Biology Courses		
BIO/MBI 115	Biological Concepts: Ecology, Evolution, Genetics, and Diversity	4
BIO/MBI 116	Biological Concepts: Structure, Function, Cellular, and Molecular Biology	4
MBI 201	General Microbiology	4
MBI 365 or BIO 444	Molecular and Cell Biology Molecular Biology	3
Core Chemistry Courses		
CHM 141 & CHM 142 or CHM 141R & CHM 142	College Chemistry and College Chemistry College Chemistry and College Chemistry	6-7
CHM 144 & CHM 145	College Chemistry Laboratory and College Chemistry Laboratory	4
Organic chemistry - select one of the following options:		4-10
Option 1:		
CHM 231	Fundamentals of Organic Chemistry	
Option 2:		
CHM 241 & CHM 242	Organic Chemistry and Organic Chemistry	
CHM 244 & CHM 245	Organic Chemistry Laboratory and Organic Chemistry Laboratory	
CHM 332 or CHM 432	Outlines of Biochemistry Fundamentals of Biochemistry	3-4
Core Math Courses		
MTH 151 or STA 261	Calculus I Statistics	4
Practicum/Internship Courses		

MBI 487	Medical Laboratory Science Practicum	8
MBI 488	Medical Laboratory Science Practicum	12
MBI 489	Medical Laboratory Science Practicum	12
Elective Courses		
Select one of the following:		3-5
BIO 203	Introduction to Cell Biology	
BIO 342	Genetics	
CHM 363	Analytical Chemistry	
MBI 435	Medical Mycology	
MBI 464	Human Viruses	
PHY 161	Physics for the Life Sciences with Laboratory I	
PHY 181 & PHY 183	General Physics I and General Physics Laboratory I	
Select one of the following:		4
BIO 161	Principles of Human Physiology	
BIO 305	Human Physiology	
MBI 405	Medical Bacteriology	
MBI 414	Immunology Principles	
MBI 415	Immunology Principles and Practice	
Total Credit Hours		75-85