

# Microbiology Emphasis

## BIOLOGY Major

Code	Title	Credits
<b>Supporting Courses</b>		25-29
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
<b>Mathematics (choose one course):</b>		
MATH 104	Precalculus	
MATH 202	Calculus and Analytic Geometry I	
<b>Writing (choose one course):</b> <sup>1</sup>		
ENG COMP 105	English Composition II: Composition and Rhetoric	
INFO SCI 390	Technical Writing	
<b>Upper Level Courses</b> <sup>2</sup>		34-38
<b>Required courses</b>		
BIOLOGY 302 or BIOLOGY 322	Principles of Microbiology Environmental Microbiology	
BIOLOGY 311 or BIOLOGY 346	Plant Physiology Comparative Physiology	
BIOLOGY 303	Genetics	
BIOLOGY 309	Evolutionary Biology	
ENV SCI 302	Principles of Ecology	
BIOLOGY 402	Advanced Microbiology	
<b>Chemistry (minimum of 8 credits of the following courses):</b>		
CHEM 302 & CHEM 304	Organic Chemistry I and Organic Chemistry Laboratory I	
CHEM 303 & CHEM 305	Organic Chemistry II and Organic Chemistry Laboratory II	
CHEM 330	Biochemistry	
CHEM 331	Biochemistry Laboratory	
<b>Electives (choose 8 or more credits from the following courses):</b>		
BIOLOGY 307	Cell Biology	
BIOLOGY 308	Cell Biology Laboratory	
BIOLOGY 312	Mycology	
BIOLOGY 407	Molecular Biology	
BIOLOGY 408	Molecular Biology Laboratory	
BIOLOGY 497	Internship	
HUM BIOL 422	Immunology	
HUM BIOL 423	Immunology Lab	
<b>Seminar (1 credit required):</b>		
BIOLOGY 490	Biology Seminar	

Total Credits

59-67

2 *Microbiology Emphasis*

1 Satisfied with an ACT English score of 32 or higher

2 Research experience and/or Internships are highly recommended. Credits from research and internships may be counted toward upper level electives.

Students planning to continue on to graduate school or a professional program are recommended to take calculus, physics and organic chemistry.