

Microbiology Emphasis

BIOLOGY Major

This disciplinary emphasis also requires:

- Completion of an interdisciplinary major or minor (<http://catalog.uwgb.edu/archive/2017-2018/undergraduate/planning/interdisciplinary-majors-minors>)

Code	Title	Credits
Supporting Courses		28-29
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	
Mathematics (choose one course):		
MATH 104	Elementary Functions: Algebra and Trigonometry	
MATH 201	Calculus for the Management and Social Sciences	
MATH 202	Calculus and Analytic Geometry I	
Writing (choose one course):		
ENG COMP 105	English Composition II: Composition and Rhetoric	
INFO SCI 390	Technical Writing	
Upper Level Courses ¹		34-38
Required courses		
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	
Chemistry (minimum of 8 credits of the following courses):		
CHEM 300 & CHEM 301	Bio-Organic Chemistry and Bio-Organic Chemistry Laboratory	
CHEM 302 & CHEM 304	Organic Chemistry I and Organic Chemistry Laboratory I	
CHEM 330	Biochemistry	
CHEM 331	Biochemistry Laboratory	
Electives (choose 8 or more credits from the following courses):		
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	

Seminar (1 credit required):

BIOLOGY 490

Biology Seminar

Total Credits

62-67

- ¹ 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.