UNIVERSITY OF WISCONSIN OSHKOSH

College of Letters and Science

Microbiology Major
71 credit min

Effective for Spring 2013

Course pre-requisites are in parentheses
C/ means concurrent enrollment allowed
(F= Fall term only, S= Spring term only, B= Both Fall and Spring terms)

Microbiology Core Courses (16-17 credits)

BIO 105 B Biological Concepts (4) ___
OR
BIO 108 F Honors: Concepts in Bio (5) ___
BIO 106 B Biological Concepts: Diversity (4) ___
BIO 323 B Intro Molecular and Cell Bio (3) ___
(BIO 105, CHEM 105 and/or c/enrollment in CHEM 106,OR CHEM 101, 102 w/B)
BIO 343 B Genetics (BIO 323) (4) ___
BIO 349 B Ecology and Evolution (3) ___
(1 term gen bio)
BIO 491 B Senior Survey *** (0) ___

*** Senior Students, during their last semester, will take a general biology/microbiology assessment exam and fill out a survey to express their opinion of the biology/microbiology program. Tests/surveys will be taken in the Testing Center at the student's convenience, (but during normal Testing Center hours). Completion of the test/survey is a requirement for graduation.

Required Courses

CHEM 105 B General Chemistry I (5) ___
CHEM 106 B General Chemistry II (5) ___
CHEM 235 B Organic Chemistry I (NS) (4) ___
(CHEM 106 w/C)
CHEM 335 B Organic Chemistry II (NS) (1-4) ___
(CHEM 235 w/C)
CHEM 303 B Biochemistry: Chemical Emphasis (3) ___
(CHEM 335)
PHY/AST 107 F General Physics (NS) (1-5) ___
(MATH 106, 108)
OR
PHY/AST 109 F Physics/Astronomy (NS) (5) ___
(C/MATH 171)
MATH: As specified by COLS requirements.

Additional Required Courses (19 credits)

BIO 309 B Bacteriology (NS) (BIO 105) (5) ___
BIO 327 F Microbial Ecology (3) ___
(BIO 231 OR 233 OR 309)
BIO 341 F Immunology (BIO323) (3) ___
BIO 375 F Microbial Genetics (BIO 309, C/375) (2) ___
BIO 450 F Microbial Physiology (NS) (BIO 309) (5) ___
Two of the following laboratory-only courses**
(4-5 credits)
BIO 313 S Medical Bacteriology Lab (NS) (2) ___
(BIO 309, 341, C/312)
BIO 374 F Cell/Immunology Lab (NS) (3) ___
(C/BIO 341 or 372)
BIO 377 F Microbial Genetics Lab (NS) (2) ___
(C/BIO 309 and 375)
BIO 390 S* Biotechnology Lab (NS) (BIO 309) (2) ___

Electives (5-6 credits)

BIO 301 B Internship in Microbiology (1-6) ___
BIO 303 F Intro to Epidemiology (BIO 105) (2) ___

BIO 312 S Medical Bacteriology Lecture (2) ___
(BIO 309, 341 C/312)
BIO 315 S Developmental Biology (BIO 323) (3) ___
BIO 321 F Mycology (NS) (1 term gen bio) (3) ___
BIO 338 S Environmental Toxicology(BIO 105) (2) ___
BIO 339 S Public Health and Food Micro (NS) (3) ___
(BIO 309)
BIO 343 B Genetics (BIO 323) (4) ___
BIO 349 B Ecology & Evolution(1 term gen bio) (3) ___
BIO 354 S Parasitology (NS)** (3) ___
BIO 389 S Principles of Biotechnology (3) ___
(BIO 323, 343)
BIO 446 B Independent Study *** (5) ___
(A max of six credits from BIO 446/456 can be counted towards a Biology or Microbiology degree.)
BIO 456 B Related Readings *** (1-3) ___

*S = Spring odd years
**NOTE: It is recommended that lab-only courses are taken with corresponding elective.
***NOTE: Topic must be relevant to microbiology. These courses (BIO 446 and 456) can count for no more than three credits of electives for the major.

Approved: November 2011
Printed: February 2013

Must also meet General Education and Degree Requirements to earn BS Degree.

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