UNIVERSITY OF WISCONSIN OSHKOSH

College of Letters and Science

Cell/Molecular Professional Emphasis
59 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)

Biology Core Courses (11-12 credits)

BIO 105 B Biological Concepts (4) ___
OR
BIO 108 F Honors: Concepts in Bio (5) ___
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 491 B Senior Survey *** (0) ___

Required Courses (23 credits)

CHEM 105 B General Chemistry I (5) ___
CHEM 106 B General Chemistry II (5) ___
CHEM 234 B Organic Chemistry I Lab (NS) (CHEM 106 w/C)(1) ___
CHEM 235 B Organic Chemistry I (NS) (CHEM 106 w/C) (3) ___
CHEM 334 B Organic Chemistry II Lab (NS)(CHEM 235 w/C)(1) ___
CHEM 335 B Organic Chemistry II (NS) (3) ___
(CHEM 235 w/C)
CHEM 303 B Biochemistry:Clinical Emphases(CHEM 335) (3) ___
MATH: As specified by COLS requirements.

Additional Required Courses (25-27 credits)

BIO 230 B Biology of Animals (NS) (BIO 105) (4) ___
AND
BIO 231 B Bio of Plants and Microbes (NS) (BIO 105 (4) ___
OR
BIO 106 B Biological Concepts-Diversity (NS) (4) ___
AND
BIO 349 B Ecology and Evolution (1 term gen bio) (3) ___
OR
BIO 351 S Evolution (1 term gen bio) (2) ___
AND
BIO 372 S Medical and Environ App of Cell Bio & Gen (3) ___
AND
BIO 374 F Cell/Immunology Lab (NS) (3) ___
(C/BIO 341 or 372)
AND
BIO 389 S Principles of Biotechnology (BIO 323, 343) (3) ___
BIO 390 S* Biotechnology Lab (NS) (BIO 309) (2) ___
OR
BIO 375 F Microbial Genetics (BIO 309, C/375) (2) ___
BIO 377 F Microbial Genetics Lab (NS) (2) ___
OR
BIO 350 F Electron Microscopy (NS) (4) ___

Electives (8-9 credits)

BIO 306 S Neurobiology (BIO 105) (3) ___
BIO 315 S Developmental Biology (BIO 323) (3) ___
BIO 321 F Mycology (NS) (1 term gen bio) (3) ___
BIO 337 S*Plant Anatomy (NS) (3) ___
BIO 309 B Bacteriology (NS)(1 term gen bio) (5) ___
BIO 316 S Developmental Biology (BIO 323) (3) ___
BIO 341 F Immunology (BIO 233, 309) (3) ___
BIO 350 F Electron Microscopy (NS) (4) ___
BIO 354 S Parasitology (NS)** (3) ___
BIO 374 F Cell/Immunology Lab (NS) (3) ___
(C/BIO 341 or 372)
BIO 375 F Microbial Genetics (BIO 309, 343) (3) ___
BIO 377 F Microbial Genetics Lab (NS) (2) ___
(C/BIO 309 and 375)
BIO 389 S Principles of Biotechnology (BIO 323, 343) (3) ___
BIO 390 S* Biotechnology Lab (NS) (BIO 309) (2) ___

***S** = Spring of even years.

*** 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.

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

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