

**BIOLOGY MAJOR WITH EMPHASIS IN MICROBIOLOGY**

**Supporting Courses, 28-29 credits**

- BIOLOGY 201 Principles of Biology: Cellular & Molecular Processes, 3 cr (F,S) & BIOLOGY 202 Principles of Biology Lab: Cellular and Molecular Processes, 1 cr. (F,S)
- BIOLOGY 203 Principles of Biology: Organisms, Ecology & Evolution, 3 cr (F,S) WE & BIOLOGY 204 Principles of Biology Lab: Organisms, Ecology, and Evolution, 1 cr (F,S) WE
- CHEM 211 Principles of Chemistry I, 4 cr (F,S) & CHEM 213 Principles of Chemistry I Lab, 1 cr (F,S)
- CHEM 212 Principles of Chemistry II, 4 cr (F,S) & CHEM 214 Principles of Chemistry II Lab, 1 cr (F,S)
- MATH 260 Introductory Statistics, 4 cr (F,S)

Mathematics, choose one of these:

- MATH 104 Elementary Functions: Algebra & Trigonometry, 4 cr (F,S)
- MATH 201 Calculus for the Management & Social Sciences, 3 cr (F,S)
- MATH 202 Calculus & Analytic Geometry I, 4 cr (F,S)

Writing, choose one of these:

- ENG COMP 105 Expository Writing, 3 cr (F,S)
- INFO SCI 390 Technical Writing, 3 cr WE

**Upper-Level Courses, 34-38 credits**

Required courses, minimum of 13 credits

- BIOLOGY 303 Genetics, 3 cr (F,S)
- BIOLOGY 309 Evolutionary Biology, 3 cr (F,S)
- ENV SCI 302 Principles of Ecology, 4 cr (F,S) WE
- BIOLOGY 402 Advanced Microbiology, 4 cr (SE) WE
- BIOLOGY 302 Principles of Microbiology, 4 cr (F,S)
- Or  BIO 322 Environmental Microbiology, 4 cr (S)
- BIOLOGY 311 Plant Physiology, 4 cr (F) WE
- Or  BIOLOGY 346 Comparative Physiology, 3 cr (S)
- BIOLOGY 407 Molecular Biology, 3 cr (S)

Choose one of the following groups, minimum of eight credits:

- CHEM 300 Bio-organic Chemistry, 3 cr (S) & CHEM 301 Bio-organic Chemistry Lab, 1 cr (S)
- CHEM 330 Biochemistry, 3 cr (FO) & CHEM 331 Biochemistry Lab, 1 cr (F,S)

Or

- CHEM 302 Organic Chemistry I, 3 cr (F,S) & CHEM 304 Organic Chemistry I Lab, 1 cr (F,S)
- CHEM 303 Organic Chemistry II, 3 cr (F,S) & CHEM 305 Organic Chemistry II Lab, 1 cr (F,S)
- CHEM 330 Biochemistry, 3 cr (FO) & CHEM 331 Biochemistry Lab, 1 cr (F,S)

Choose a minimum of 8 credits from:

- BIOLOGY 307 Cell Biology, 3 cr (F,S) WE
- BIOLOGY 308 Cell Biology Lab, 1 cr (F,S) WE
- BIOLOGY 312 Mycology, 4 cr (FO)
- BIOLOGY 407 Molecular Biology, 3 cr (SO)
- BIOLOGY 408 Molecular Biology Lab, 1 cr (S)
- BIOLOGY 497 Internship, 1-12 cr (F,S)
- HUM BIOL 422 Immunology, 3 cr (SO) WE
- HUM BIOL 423 Immunology Lab, 1 cr (SO)

Seminar, one credit required:

- BIOLOGY 490 Biology Seminar, 1 cr (F,S)

**GENERAL EDUCATION:**  Fine Arts 3cr ●●  Humanities 9cr ●●  Social Science 9cr (6 SS-1; 3 SS2) ●●  Natural Science 10-12cr (HB1, HB2, NPS1 & NPS2) – see page 8 of current Catalog for specifics ●●  Ethnic Studies 3cr ●●  World Culture 3cr ●●  Writing Emphasis (2 lower level) ●●  Writing Emphasis (2 upper level)

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