The Bachelor of Arts major provides a broad training in biology and allows specializations through choice of electives. It offers basic preparation for entry-level employment positions, graduate work or an advanced degree in all health-related areas. The combination of required and elective courses needs to equal a minimum of 58 credit hours.

**Introductory Track**

- **BIOL2051** General Biology: Organismal Diversity, 4 hrs
- **BIOL2052** General Biology: Cell Structure and Function, 4 hrs
- **BIOL3100** Evolution, Ecology & the Nature of Science, 3 hrs
- **BIOL3140** Genetics, 4 hrs

**Required Chemistry***

- **CHEM1110** General Chemistry I, 4 hrs
- **CHEM1120** General Chemistry II, 4 hrs

**Required Advanced Chemistry Coursework**  
(choose one option)

1. **CHEM2040** Applied Organic & Biochemistry, 4 hrs  
   **OR**  
2. **CHEM2210** Organic Chemistry I, 3 hrs  
   **CHEM2230** Organic Chemistry Lab, 2 hrs

**Required Math**  
(choose one option)

1. **MATH1120** Math for the Biological Sciences, 3 hrs  
   **AND**  
   **MATH1130** Trigonometry, 2 hrs  
   **OR**  
2. **MATH1140** Precalculus, 4 hrs  
   **OR**  
3. **MATH1420** Calculus I, 4 hrs

**Required Earth Science or Physics**  
(choose one option)

1. **EARTHSCI1300** Intro to Geology, 4 hrs  
   **AND**  
   **EARTHSCI1320** Earth History, 4 hrs  
   **OR**  
2. **PHYSICS1511** General Physics I, 4 hrs  
   **AND**  
   **PHYSICS1512** General Physics II, 4 hrs

**Major Elective Credit Courses**  
(17-19 hours to total 58)

- List of biology electives on reverse side
- Science courses at Iowa Lakeside Laboratory satisfy elective requirements. Check with your advisor for specific information.

Chemistry courses that satisfy elective requirement:

- **CHEM4510** Biochemistry I, 3 hrs
- **CHEM2220** Organic Chemistry II, 3 hrs

**NOTES:**

- Must have a UNI cumulative & UNI major/plan GPA of 2.5, higher, with a grade of C- (1.67), or better in all courses applied to the major.
- A minimum of 7 credits of 4000 level biology electives required: **BIOL4xxx** --**BIOL4198** Independent Study and **CHEM4510** Biochemistry I; do not count toward the 4000 level biology elective requirement.
- At least 4 credits of biology electives at the 4000 level need to be taken at UNI.
- **BIOL3101** Anatomy & Physiology I counts as university elective credit, not as a biology major elective.
- Cannot count more than a combined 4 credits toward the biology major elective requirements:  
  - **BIOL3185** Readings in Biology  
  - **BIOL3190** Undergraduate Research  
  - **BIOL4198** Independent Study  
- If **CHEM 1130** General Chemistry I-II, 5 hrs, is taken, then 3 additional biology electives are required to reach a 58 credit major.
- Students invited to do Honors Research will complete 4 credit hours of **BIOL3190** Undergraduate Research and 1 credit hour of **BIOL3191** Senior Thesis. Students must declare the Honors Research Emphasis in order for it to reflect on the degree.
### 3000 & 4000 BIOLOGY COURSE OFFERINGS

**BIOL 3100** Evolution, Ecology & Nature of Science  
(Fall/Spring) 3 hrs

**BIOL 3102** Anatomy & Physiology II* (Fall/Spring), 4 hrs

**BIOL 3106** Vertebrate Anatomy (Fall/Spring), 4 hrs

**BIOL 3107** Environmental Physiology (Fall), 3 hrs

**BIOL 3108** Vertebrate Histology (Even Springs), 4 hrs

**BIOL 3112** Invertebrate Zoology (Spring), 4 hrs

**BIOL 3118** Marine Biology (Fall), 3 hrs

**BIOL 3120** Plant Diversity and Evolution (Spring), 4 hrs

**BIOL 3140** Genetics (Spring/Fall), 4 hrs

**BIOL 3147** Cancer and Emerging Infectious Diseases (Spring), 3 hrs

**BIOL 3151** General Microbiology (Fall/Spring), 4 hrs

**BIOL 3160** Field Zoology of Vertebrates (Spring), 4 hrs

**BIOL 3170** Entomology (Even Falls), 3 hrs

**BIOL 4105** Wildlife Ecology & Mngmt (Odd Falls), 4 hrs

**BIOL 4108** Biodiversity Conservation Policy & Regs  
(Even Falls), 3 hrs

**BIOL 4114** Comparative Animal Physiology# (Even Falls), 4 hrs

**BIOL 4116** Neurobiology (Spring), 3 hrs

**BIOL 4121** Plant Biotechnology (Odd Falls), 4 hrs

**BIOL 4122** Plant Physiology (Spring), 4 hrs

**BIOL 4127** Bioinformatics Applications for Biology,  
(Even Springs), 3 hrs

**BIOL 4128** Cell Biology# (Spring), 4 hrs

**BIOL 4129** Genomics & Proteomics (Even Falls), 3 hrs

**BIOL 4137** Vertebrate Physiology# (Odd Falls), 4 hrs

**BIOL 4142** Evolutionary Biology (Spring), 3 hrs

**BIOL 4144** Virology (Even Springs), 4 hrs

**BIOL 4146** Developmental Biology of Animals  
(Fall/Spring), 4 hrs

**BIOL 4150** Immunology (Fall/Spring), 4 hrs

**BIOL 4152** Microbial Molecular Bio (Odd Springs), 4 hrs

**BIOL 4153** Recombinant DNA Tech (Even Falls), 4 hrs

**BIOL 4154** Aquatic Ecology (Fall), 3 hrs

**BIOL 4157** Biostatistics, 3 hrs

**BIOL 4164** Mammalogy (Fall), 4 hrs

**BIOL 4166** Plant Systematics (Fall), 4 hrs

**BIOL 4167** Conservation Biology (Spring), 3 hrs

**BIOL 4168** Ecology (Fall), 4 hrs

**BIOL 4172** Developmental Plant Anatomy (Fall), 4 hrs

**BIOL 4176** Microscopy Methods in Biology, 3 hrs

**BIOL 4180** Restoration Ecology (Spring), 4 hrs

**BIOL 4198** Independent Study****

**Research Associated Credits**

**BIOL 3185** Readings in Biology, 1-3 hrs

**BIOL 3189** Seminar, 1 hr

**BIOL 3190** Undergraduate Research Biology, 1-3 hrs***

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**Science courses at Iowa Lakeside Laboratory, lakesidelab.org, satisfy elective requirements. Check with your advisor for specific information.**

Full course details at: uni.edu/catalog

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### NOTES:

1. **Prerequisite for 3000 level courses include completion of:** BIOL 2052, BIOL 2051, CHEM 1110 and CHEM 1120. All with a with C- or higher

2. **Prerequisite for 4000 level courses include junior standing and completion of**
   a. Two semester sequence of General Biology and General Chemistry (listed above)
   b. BIOL3100 Evolution, Ecology and Nature of Science and BIOL3140 Genetics. All with a with C- or higher
   c. Courses with # have additional prerequisites. Check course catalog for complete details.

3. * BIOL 3101 A & P I counts as university elective credit. A student must take BIOL 3101 Anatomy and Physiology I OR BIOL 3106 Vertebrate Anatomy and BIOL 3102 Anatomy and Physiology II at UNI for BIOL 3102 to be counted as biology elective credit for the major or minor.

4. **Undergraduate Research in Biology -- Students must contact faculty members to inquire about available research opportunities**

5. **The official degree requirements and policies and procedures can be found at: www.uni.edu/catalog**

6. **Students pursuing a biology major or minor must earn a C- or better in all coursework required for their major and must have a UNI Major/Plan GPA and UNI Cumulative GPA of 2.5 or better at the time of graduation**