BIOLOGY COMPREHENSIVE, BACHELOR OF SCIENCE

Offered by Department of Biology (http://catalog.unk.edu/undergraduate/departments-programs/biology/)

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<th>Code</th>
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**General Studies**

*Foundational Requirements (LOPERS 1-4) including:*

12

*Including:*

- LOPER 4: Mathematics, Statistics, and Quantitative Reasoning
  - MATH 103 Plane Trigonometry

*Broad Knowledge Requirements (LOPERS 5-8)*

13

*Including:*

- LOPER 7 (Social Science)
- LOPER 8 (Natural Science)
  - BIOL 105 Biology I

*Dispositional Requirements (LOPERS 9-10)*

6

*Wellness (LOPER 11) Optional*

0

**Program-Specified Requirements**

4

**BS Science-related course requirements**

8

- CHEM 160 General Chemistry
  & 160L General Chemistry Laboratory
- CHEM 161 General Chemistry
  & 161L General Chemistry Laboratory

**Major Option**

Complete all required courses

44-61

**Unrestricted electives**

Needed to reach 120 credit hour minimum

16-33

**Total Credit Hours**

120

*A minimum 2.5 GPA is required in all courses counting toward this major.*

**Major Option**

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**Biology Comprehensive Core Requirements**

- BIOL 231 Research Methods I
- BIOL 305 BioStatistics
- BIOL 359 Evolution
- BIOL 360 Genetics

Select 2 credit hours of the following:

- BIOL 421 Seminar in Biology

or

- BIOL 431A Research Methods IIA

AND

- BIOL 431B Research Methods IIB

**Biology Emphasis Requirements**

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*Select one of the following:*

29-46

- General Emphasis (p. 1)
- Wildlife Emphasis (p. 2)
- Health Sciences Emphasis (p. 2)

**Total Credit Hours**

44-61

**General Emphasis**

**Required Courses**

Take all of the following:

13-18

- BIOL 307 Ecology
- PHYS 205 General Physics I
  & 205L General Physics I Laboratory

Select one of the following:

- CHEM 250 & 250L Fundamentals of Organic Chemistry
  and Fundamentals of Organic Chemistry Laboratory

or

- CHEM 360 & 360L Organic Chemistry
  and Organic Chemistry Laboratory

and

- CHEM 361 & 361L Organic Chemistry
  and Organic Chemistry Laboratory

**Field Electives**

Select 6-9 credit hours of the following:

6-9

- BIOL 307 Ecology
- BIOL 405 Range and Wildlife Management
- BIOL 406 Plant Ecology
- BIOL 418 Plant Taxonomy
- BIOL 435 Herpetology
- BIOL 462 Animal Behavior
- BIOL 470 Insect Biology
- BIOL 472 Ichthyology
- BIOL 473 Ornithology
- BIOL 474 Mammalogy

**Laboratory Electives**

Select 6-9 credit hours of the following:

6-9

- BIOL 330 Wildlife Conservation
- BIOL 211 Human Microbiology
- BIOL 215 Human Physiology
- BIOL 225 Anatomy and Physiology
- BIOL 226 Anatomy and Physiology
- BIOL 301 Introduction to Soils
- BIOL 309 Cellular & Molecular Biology
- BIOL 401 Principles of Immunology
- BIOL 403 Plant Physiology
- BIOL 404 Developmental Biology
- BIOL 416 Plant Diversity and Evolution
- BIOL 440 Infectious Diseases
- BIOL 450 Advanced Molecular Biology
- BIOL 465 Physiology

Select one of the following:

4
### Required Courses

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<tr>
<td>BIOL 213</td>
<td>Introduction to Fish and Wildlife Management</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 307</td>
<td>Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 330</td>
<td>Wildlife Conservation</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 405</td>
<td>Range and Wildlife Management</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 418</td>
<td>Plant Taxonomy</td>
<td>3</td>
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Select one of the following:

- BIOL 409 Biological Studies using GIS
- GEOG 417 Geosciences Principles and Concepts
- GEOG 418 Working with GISciences and Spatial Analysis

### Botany

Select 2 courses from the following:

- BIOL 403 Plant Physiology
- BIOL 406 Plant Ecology
- BIOL 416 Plant Diversity and Evolution

### Zoology

Select 2 courses from the following:

- BIOL 435 Herpetology
- BIOL 470 Insect Biology
- BIOL 472 Ichthyology
- BIOL 473 Ornithology
- BIOL 474 Mammalogy

### Human Dimensions

Take one course from the following:

- BIOL 311 Bioethics
- BIOL 426 Human Dimensions of Wildlife and Fisheries
- BIOL 442 Wildlife and Fisheries Laws and Policies
- ECON 385 Environmental Economics
- PSCI 332 Environmental Politics & Policy

### Other Electives

Take 3 courses from the following:

- BIOL 301 Introduction to Soils
- BIOL 309 Cellular & Molecular Biology
- BIOL 403 Plant Physiology (This course can only count in one area.)
- BIOL 404 Developmental Biology
- BIOL 406 Plant Ecology (This course can only count in one area.)
- BIOL 409 Biological Studies using GIS (This course can only count in one area.)
- BIOL 416 Plant Diversity and Evolution (This course can only count in one area.)

- BIOL 430 Special Topics in Biology
- BIOL 435 Herpetology (This course can only count in one area.)
- BIOL 450 Advanced Molecular Biology
- BIOL 456 Regional Field Study
- BIOL 462 Animal Behavior
- BIOL 465 Physiology
- BIOL 470 Insect Biology (This course can only count in one area.)
- BIOL 472 Ichthyology (This course can only count in one area.)
- BIOL 473 Ornithology (This course can only count in one area.)
- BIOL 474 Mammalogy (This course can only count in one area.)
- GEOG 416 Applications of Geographic Information Systems
- GEOG 417 Geosciences Principles and Concepts (This course can only count in one area.)
- GEOG 418 Working with GISciences and Spatial Analysis (This course can only count in one area.)

- MATH 123 Applied Calculus I
- PHYS 205 General Physics I & 205L General Physics I Laboratory

- CHEM 360 Organic Chemistry & 360L Organic Chemistry Laboratory
- CHEM 361 Organic Chemistry & 361L Organic Chemistry Laboratory

### Total Credit Hours

Wildlife Emphasis: 29-40

Health Sciences Emphasis: 41
The Biology degree, General Emphasis and Health Science Emphasis require a minimal mathematical competency at the level of trigonometry. Students with sufficient preparation may enter the mathematics program at a higher level, reducing the total credit hours needed. See advisor for math placement.