BIOLOGY COMPREHENSIVE, BACHELOR OF SCIENCE

Offered by Department of Biology (http://catalog.unk.edu/catalog-archive/2018-2019/undergraduate/departments-programs/biology)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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**General Studies**

*Foundational Core (Written, Math, Oral, Democracy)*

Foundational Core courses (http://catalog.unk.edu/catalog-archive/2018-2019/undergraduate/general-studies/general-studies-courses)

Including:

- MATH 102 College Algebra

**Portal**

Select one course numbered 188 (http://catalog.unk.edu/catalog-archive/2018-2019/undergraduate/general-studies/general-studies-courses/portal-course)

**Distribution**

ENG 101 Introduction of Academic Writing

*If ENG 101 is not taken as a prerequisite for ENG 102 then additional hours may be required to meet the 27 credit hour minimum in the Distribution Area of General Studies.*

**Analytical and Quantitative Thought**

**Wellness**

**Capstone**

Select one course numbered 388 (http://catalog.unk.edu/catalog-archive/2018-2019/undergraduate/general-studies/general-studies-courses/capstone-course)

**BS Science-related course requirements**

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>CHEM 160</td>
<td>General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 160L</td>
<td>General Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 161</td>
<td>General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 161L</td>
<td>General Chemistry Laboratory</td>
<td>1</td>
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**Major Option**

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**Biology Comprehensive Core Requirements**

- BIOL 231 Research Methods I
- BIOL 290 Evolution
- BIOL 305 BioStatistics
- BIOL 307 Ecology
- BIOL 360 Genetics

Select 2 credit hours of the following:

- BIOL 421 Seminar in Field Studies
- BIOL 431 Research Methods II (It is MANDATORY for Majors electing the option of BIOL 431 to take a minimum of 2 credit hours for completion of their program of study.)
- BIOL 482 Seminar in Molecular Biology

**Biology Comprehensive Supporting Course Requirements**

Select one of the following:

- CHEM 250 & 250L Elementary Organic Chemistry and Elementary Organic Chemistry Lab
- CHEM 360 & 360L & 361 & 361L Organic Chemistry and Organic Chemistry Laboratory and Organic Chemistry and Organic Chemistry Laboratory

**Biology Emphasis Requirements**

Select one of the following:


**General Emphasis**

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**Field Electives**

Select 6-9 credit hours of the following:

- BIOL 330 Wildlife Conservation
- BIOL 405 Range and Wildlife Management
- BIOL 406 Plant Ecology
- BIOL 418 Plant Taxonomy
- BIOL 435 Herpetology

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

Total Credit Hours 120
### Biology Comprehensive, Bachelor of Science

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BIOL 462</td>
<td>Animal Behavior</td>
<td></td>
</tr>
<tr>
<td>BIOL 470</td>
<td>Insect Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 472</td>
<td>Ichthyology</td>
<td></td>
</tr>
<tr>
<td>BIOL 473</td>
<td>Ornithology</td>
<td></td>
</tr>
<tr>
<td>BIOL 474</td>
<td>Mammalogy</td>
<td></td>
</tr>
</tbody>
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#### Laboratory Electives
Select 6-9 credit hours of the following:

- BIOL 401: Principles of Immunology
- BIOL 403: Plant Physiology
- BIOL 404: Developmental Biology
- BIOL 416: Plant Diversity and Evolution
- BIOL 440: Infectious Diseases
- BIOL 452: Techniques in Molecular Biology
- BIOL 465: Physiology

Select one of the following:

- CHEM 401: Analytical Chemistry and Analytical Chemistry Lab

or

- CHEM 451: Biochemistry and Biochemistry Lab

### Required Courses

- **BIOL 213**: Introduction to Fish and Wildlife Management
- **BIOL 330**: Wildlife Conservation
- **BIOL 405**: Range and Wildlife Management
- **BIOL 406**: Plant Ecology
- **BIOL 409**: Biological Studies using GIS
- **BIOL 416**: Plant Diversity and Evolution
- **BIOL 418**: Plant Taxonomy

#### Zoology
Select 2 courses from the following:

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

Take one course from Environmental Health Sciences:

- ECON 385: Environmental Economics
- GEOG 305: Environmental Conservation
- PSCI 332: Environmental Politics & Policy

### Health Sciences Emphasis

Select one of the following:

- BIOL 301: Introduction to Soils
- BIOL 309: Cellular Biology
- BIOL 404: Developmental Biology
- BIOL 430: Special Topics in Biology
- BIOL 435: Herpetology
- BIOL 440: Infectious Diseases
- BIOL 450: Molecular Biology
- BIOL 456: Regional Field Study
- BIOL 462: Animal Behavior
- BIOL 470: Insect Biology
- BIOL 472: Ichthyology
- BIOL 473: Ornithology
- BIOL 474: Mammalogy
- GEOG 315: GIScience - Principles and Concepts
- GEOG 316: Working with GIScience and Spatial Analysis
- GEOG 416: Applications of Geographic Information Systems
- PHYS 205: General Physics I

### Total Credit Hours

- **24-30**

#### Physiology

Select one of the following:

- BIOL 215: Human Physiology
- BIOL 309: Cellular Biology
- BIOL 404: Developmental Biology
- BIOL 430: Special Topics in Biology
- BIOL 435: Herpetology
- BIOL 440: Infectious Diseases
- BIOL 450: Molecular Biology
- BIOL 456: Regional Field Study
- BIOL 462: Animal Behavior
- BIOL 470: Insect Biology
- BIOL 472: Ichthyology
- BIOL 473: Ornithology
- BIOL 474: Mammalogy
- GEOG 315: GIScience - Principles and Concepts
- GEOG 316: Working with GIScience and Spatial Analysis
- GEOG 416: Applications of Geographic Information Systems
- PHYS 205: General Physics I

#### Total Credit Hours

- **39**
Biology Comprehensive, Bachelor of Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHYS 205</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 205L</td>
<td>Physics I Laboratory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Select 4 credit hours of the following:</strong></td>
<td>4</td>
</tr>
<tr>
<td>BIOL 110</td>
<td>Introduction to Epidemiology</td>
<td></td>
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<tr>
<td>CHEM 352</td>
<td>Biochemistry II</td>
<td></td>
</tr>
<tr>
<td>&amp; 352L</td>
<td>Biochemistry II Lab</td>
<td></td>
</tr>
<tr>
<td>ECON 410</td>
<td>Health Care Economics</td>
<td></td>
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<tr>
<td>FAMS 110</td>
<td>Introduction to Nutrition</td>
<td></td>
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<tr>
<td>HSCI 225</td>
<td>Introduction to Hematology</td>
<td></td>
</tr>
<tr>
<td>HSCI 300</td>
<td>Seminar in Health Sciences</td>
<td></td>
</tr>
<tr>
<td>MGT 450</td>
<td>Health Care Delivery: Systems and Policies</td>
<td></td>
</tr>
<tr>
<td>PSY 440</td>
<td>Health Psychology</td>
<td></td>
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<tr>
<td>SOC 275</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>SOC 462</td>
<td>Sociology of Health and Illness</td>
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</tr>
<tr>
<td>SPAN 103</td>
<td>Spanish for Special Purposes</td>
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</table>

**Total Credit Hours** 40

1 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.