# Biology Comprehensive, Bachelor of Science

Offered by Department of Biology (http://catalog.unk.edu/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/undergraduate/general-studies/general-studies-courses) 12

Including:

<table>
<thead>
<tr>
<th>MATH 102</th>
<th>College Algebra 1</th>
</tr>
</thead>
</table>

*Portal*

Select one course numbered 188 (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/portal-course) 3

*Distribution*

Aesthetics (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/aesthetics) 3

Humanities (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/humanities) 6

Social Sciences (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/social-sciences) 6

Natural Sciences (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/natural-sciences) 11

Including:

<table>
<thead>
<tr>
<th>BIOL 105</th>
<th>Biology I</th>
</tr>
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<tbody>
<tr>
<td>BIOL 106</td>
<td>Biology II</td>
</tr>
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</table>

Analytical and Quantitative Thought (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/analytical-quantitative-thought) 0

Wellness (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/wellness) 0

Needed to reach 27 credit hour minimum in Distribution Capstone 1

Select one course numbered 388 (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/capstone-course) 3

*BS Science-related course requirements*

<table>
<thead>
<tr>
<th>CHEM 160</th>
<th>General Chemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 160L</td>
<td>General Chemistry Laboratory</td>
</tr>
<tr>
<td>CHEM 161</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>CHEM 161L</td>
<td>General Chemistry Laboratory</td>
</tr>
</tbody>
</table>

## Major Option

*Code| Title | Credit Hours |
|-----|-------|--------------|

**Biology Comprehensive Core Requirements**

- BIOL 231 Research Methods I 3
- BIOL 290 Evolution 3
- BIOL 305 BioStatistics 3
- BIOL 307 Ecology 3
- BIOL 360 Genetics 4

Select 2 credit hours of one of the following: 2

- BIOL 421 Seminar in Biology
- BIOL 431 Research Methods II
- BIOL 482 Seminar in Molecular Biology

**Biology Comprehensive Supporting Course Requirements**

Select one of the following: 5-10

- CHEM 250 Elementary Organic Chemistry & 250L and Elementary Organic Chemistry Lab

or

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

**Biology Emphasis Requirements**

Select one of the following: 24-43

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

**Total Credit Hours** 47-71

## General Emphasis

*Code| Title | Credit Hours |
|-----|-------|--------------|

**Field Electives**

Select 6-9 credit hours of the following: 6-9

- BIOL 330 Wildlife Conservation
- 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 211 Human Microbiology
- BIOL 215 Human Physiology
- BIOL 225 Anatomy and Physiology
- BIOL 226 Anatomy and Physiology
- BIOL 309 Cellular Biology
- BIOL 401 Principles of Immunology
- BIOL 403 Plant Physiology

A minimum 2.5 GPA is required in all courses counting toward this major.
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 301  Analytical Chemistry  
& 301L  Analytical Chemistry Lab

or

CHEM 351  Biochemistry  
& 351L  Biochemistry Lab
MATH 103  Plane Trigonometry  
PHYS 205  General Physics I  
PHYS 205L  Physics I Laboratory

Total Credit Hours  24-30

**Wildlife Emphasis**

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>BIOL 213</td>
<td>Introduction to Fish and Wildlife Management</td>
<td>2</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 406</td>
<td>Plant Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 409</td>
<td>Biological Studies using GIS</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 416</td>
<td>Plant Diversity and Evolution</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 418</td>
<td>Plant Taxonomy</td>
<td>3</td>
</tr>
</tbody>
</table>

**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  

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

Take 3 courses from Other Electives  

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

**Health Sciences Emphasis**

<table>
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<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>BIOL 215</td>
<td>Human Physiology</td>
<td>8</td>
</tr>
</tbody>
</table>
& PE 360  and Introduction to Anatomical Biomechanics
| BIOL 225 | Anatomy and Physiology                     | 3            |
& BIOL 226 | Anatomy and Physiology                     | 3            |

**Microbiology**

BIOL 211  Human Microbiology  

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<tr>
<td>BIOL 211</td>
<td>Human Microbiology</td>
<td>4</td>
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</tbody>
</table>

**Biology**

Select 9 credit hours of the following:  

BIOL 309  Cellular Biology
BIOL 311  Bioethics
BIOL 325  Medical Terminology
BIOL 401  Principles of Immunology
BIOL 404  Developmental Biology
BIOL 440  Infectious Diseases
BIOL 450  Molecular Biology
BIOL 452  Techniques in Molecular Biology
BIOL 461  Human Genetics
BIOL 465  Physiology

**Supporting Courses**

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>CHEM 351</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 351L</td>
<td>Biochemistry Lab</td>
<td>1</td>
</tr>
<tr>
<td>MATH 103</td>
<td>Plane Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>PE 460</td>
<td>Gross Anatomy of Movement</td>
<td>3</td>
</tr>
<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>
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Select 4 credit hours of the following:  

BIOL 110  Introduction to Epidemiology
CHEM 352  Biochemistry II  
& 352L  Biochemistry II Lab
ECON 410  Health Care Economics
FSID 110  Introduction to Nutrition
HSCI 225  Introduction to Hematology
HSCI 300  Seminar in Health Sciences
MGT 450  Health Care Delivery; Systems and Policies
PSY 440  Health Psychology
SOC 275  Social Psychology
SOC 462  Sociology of Health and Illness
The Biology degree, General Emphasis and Health Science Emphases 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.