Biology Comprehensive, Bachelor of Science

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

<table>
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<tr>
<th>Code</th>
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<th>Credit Hours</th>
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General Studies

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

Foundation Core courses (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses) 12

Including:

- MATH 102 College Algebra 1

Portal

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

**Distribution**

- ENG 101 Introduction of Academic Writing 3

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.

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:

- BIOL 105 Biology I
- BIOL 106 Biology II

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

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

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: 5-10

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

or

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

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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

A minimum 2.5 GPA is required in all courses counting toward this major.
BIOL 226  Anatomy and Physiology
BIOL 309  Cellular 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 452  Techniques in Molecular Biology
BIOL 465  Physiology

Select one of the following: 4
CHEM 301  Analytical Chemistry
& 301L  and Analytical Chemistry Lab

or
CHEM 351  Biochemistry
& 351L  and Biochemistry Lab

MATH 103  Plane Trigonometry 3
PHYS 205  General Physics I 4
PHYS 205L  Physics I Laboratory 1

Total Credit Hours 24-30

Wildlife Emphasis

Required Courses
BIOL 213  Introduction to Fish and Wildlife Management 2
BIOL 330  Wildlife Conservation 3
BIOL 405  Range and Wildlife Management 3
BIOL 406  Plant Ecology 3
BIOL 409  Biological Studies using GIS 3
BIOL 416  Plant Diversity and Evolution 4
BIOL 418  Plant Taxonomy 3

Zoology
Select 2 courses from the following: 6
BIOL 435  Herpetology
BIOL 470  Insect Biology
BIOL 472  Ichthyology
BIOL 473  Ornithology
BIOL 474  Mammalogy

Take one course from Environmental 3
ECON 385  Environmental Economics
GEOG 305  Environmental Conservation
PSCI 332  Environmental Politics & Policy

Take 3 courses from Other Electives 9
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
& 205L  and Physics I Laboratory

Total Credit Hours 39

Health Sciences Emphasis

Code  Title  Credit Hours

Physiology
Select one of the following: 8
BIOL 215  Human Physiology
& PE 360  and Introduction to Anatomical Biomechanics

or
BIOL 225  Anatomy and Physiology
& BIOL 226  and Anatomy and Physiology

Microbiology
BIOL 211  Human Microbiology 4

Biology
Select 9 credit hours of the following: 9
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
CHEM 351  Biochemistry 3
CHEM 351L  Biochemistry Lab 1
MATH 103  Plane Trigonometry 3
PE 460  Gross Anatomy of Movement 3
PHYS 205  General Physics I 4
PHYS 205L  Physics I Laboratory 1

Select 4 credit hours of the following: 4
BIOL 110  Introduction to Epidemiology
CHEM 352  Biochemistry II
& 352L  and Biochemistry II Lab
ECON 410  Health Care Economics
FAMS 110  Introduction to Nutrition
HSCI 225  Introduction to Hematology
HSCI 300  Seminar in Health Sciences
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<td>MGT 450</td>
<td>Health Care Delivery: Systems and Policies</td>
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<tr>
<td>PSY 440</td>
<td>Health Psychology</td>
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<tr>
<td>SOC 275</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>SOC 462</td>
<td>Sociology of Health and Illness</td>
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<tr>
<td>SPAN 103</td>
<td>Spanish for Special Purposes</td>
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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.