

BIOLOGY COMPREHENSIVE, BACHELOR OF SCIENCE

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

| Code | Title | Credit Hours |
|---|----------------------------------|--------------|
| General Studies | | |
| <i>Foundational Core (Written, Math, Oral, Democracy)</i> | | |
| Foundational Core courses (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses) | | 12 |
| Including: | | |
| MATH 102 | College Algebra ¹ | |
| <i>Portal</i> | | |
| Select one course numbered 188 (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/portal-course) | | 3 |
| <i>Distribution</i> | | |
| ENG 101 | Introduction of Academic Writing | 3 |
| <i>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.</i> | | |
| 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) | | 0 |
| Wellness (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/wellness) | | 0 |
| <i>Capstone</i> | | |
| Select one course numbered 388 (http://catalog.unk.edu/undergraduate/general-studies/general-studies-courses/capstone-course) | | 3 |
| BS Science-related course requirements | | |
| CHEM 160 | General Chemistry | 3 |
| CHEM 160L | General Chemistry Laboratory | 1 |
| CHEM 161 | General Chemistry | 3 |
| CHEM 161L | General Chemistry Laboratory | 1 |
| Major Option | | |
| Complete all required courses | | 48-62 |
| Unrestricted electives | | |
| Needed to reach 120 credit hour minimum | | 3-19 |
| Total Credit Hours | | 120 |

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

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 the following: | | 2 |
| BIOL 421 | Undergraduate Seminar in Biology | |
| 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 & 250L | Elementary Organic Chemistry and Elementary Organic Chemistry Lab | |
| or | | |
| CHEM 360 & 360L & CHEM 361 & CHEM 361L | Organic Chemistry and Organic Chemistry Laboratory and Organic Chemistry 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 | |

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|------------------------------|---|-------|
| BIOL 226 | Anatomy and Physiology | |
| 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 |
| CHEM 301 & 301L | Analytical Chemistry and Analytical Chemistry Lab | |
| or | | |
| CHEM 351 & 351L | Biochemistry 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

| Code | Title | Credit Hours |
|--------------------------------------|--|--------------|
| 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 & Molecular Biology | |
| BIOL 404 | Developmental Biology | |
| BIOL 430 | Special Topics in Biology | |
| BIOL 435 | Herpetology | |
| BIOL 440 | Infectious Diseases | |
| BIOL 450 | Advanced Molecular Biology | |
| BIOL 456 | Regional Field Study | |
| BIOL 462 | Animal Behavior | |

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| BIOL 470 | Insect Biology | |
| BIOL 472 | Ichthyology | |
| BIOL 473 | Ornithology | |
| BIOL 474 | Mammalogy | |
| GEOG 315 | | |
| GEOG 316 | | |
| GEOG 416 | Applications of Geographic Information Systems | |
| PHYS 205 & 205L | General Physics I and Physics I Laboratory | |
| Total Credit Hours | | 39 |

Health Sciences Emphasis

| Code | Title | Credit Hours |
|---|--|--------------|
| Physiology | | |
| Select one of the following: | | 8 |
| BIOL 215 & PE 360 | Human Physiology and Introduction to Anatomical Biomechanics | |
| or | | |
| BIOL 225 & BIOL 226 | Anatomy and Physiology and Anatomy and Physiology | |
| Microbiology | | |
| BIOL 211 | Human Microbiology | 4 |
| Biology | | |
| Select 9 credit hours of the following: | | 9 |
| BIOL 309 | Cellular & Molecular Biology | |
| BIOL 311 | Bioethics | |
| BIOL 325 | Medical Terminology | |
| BIOL 401 | Principles of Immunology | |
| BIOL 404 | Developmental Biology | |
| BIOL 440 | Infectious Diseases | |
| BIOL 450 | Advanced 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 & 352L | Biochemistry II 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 | |
| MGT 450 | Health Care Delivery: Systems and Policies | |
| PSY 440 | Health Psychology | |

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| SOC 275 | Social Psychology |
| SOC 462 | Sociology of Health and Illness |
| SPAN 103 | Spanish for Special Purposes |
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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.**