# Biology, Minor

ASLSCMIN

Biology provides insights into how life and physical sciences intersect in the real world. With this minor, you'll gain an understanding of the scientific study of life that will help you take an interdisciplinary approach to any career path you choose.

### Description

A minor in biology can be a valuable asset, particularly when paired with an appropriate major. For instance, a minor in biology paired with a major in political science provides a good background for someone who intends to practice environmental law.

### At a glance

- College/School: New College of Interdisciplinary Arts and Sciences
- Location: <u>West Valley</u>

### **Program requirements**

2024 - 2025 Minor Map Minor Map (Archives)

The minor in biology consists of 19 credit hours of coursework, of which a minimum of 11 hours must be upper division. A minimum of eight upper-division credit hours must be completed through courses offered by the School of Mathematical and Natural Sciences. Credit hours may not be shared between major and minor requirements. All courses used to satisfy requirements for the minor must be passed with a "C" (2.00) or better.

#### **Core Requirements -- 8 credit hours**

BIO 182: General Biology II (SCIT OR SG) (4) CHM 116: General Chemistry II (SCIT OR SQ) (4)

#### Ecology, Cell Biology, or Genetics Requirement (select one combination) -- 4 credit hours

BIO 320: Fundamentals of Ecology AND LSC 322: Fundamentals of Ecology Laboratory (4) BIO 353: Cell Biology AND BIO 354: Cell Biology Laboratory (4) LSC 347: Fundamentals of Genetics AND LSC 348: Fundamentals of Genetics Laboratory (4)

#### **Upper-Division Biology Electives -- 7 credit hours**

BCH 371: Modern Concepts in Biochemistry (3) BCH 372: Modern Concepts in Biochemistry Laboratory (1) BIO 306: Modes of Biological Thought (L) (3) **BIO 320: Fundamentals of Ecology (3) BIO 340: General Genetics** (4) **BIO 345: Evolution (3) BIO 353: Cell Biology (3) BIO 354: Cell Biology Laboratory** (1) **BIO 360:** Animal Physiology (3) BIO 370: Vertebrate Zoology (4) BIO 385: Comparative Invertebrate Zoology (4) BIO 410: Techniques in Conservation Biology and Ecology (3) BIO 422: Ecosystem Ecology (3) BIO 423: Population and Community Ecology (3) BIO 426: Limnology (L) (3) BIO 431: Genes, Development, and Evolution (L) (3) **BIO 443:** Applied Molecular Genetics and Genomics (3) BIO 471: Ornithology (3) **BIO 474: Herpetology** (4) ENV 300 / PLB 300: Plant Diversity and Evolution (L or SG) (4) ENV 302 / PLB 302: Plants and Civilization (3) ENV 345: Spatial Analysis in the Environmental Sciences (3) ENV 388 / FOR 388 / LSC 388 / PLB 388 / PTX 388: STEM Research Fundamentals (3) ENV 394 / LSC 394: Animal Behavior in a Changing Environment (3) ENV 410: Soil Science (4) ENV 485: Environmental Impact Assessment (CIVI OR L) (3) FOR 370: Fundamentals of Forensic Analysis (4) FOR 377: Forensic Analytical Chemistry Laboratory (2) FOR 380 / LSC 380: Analysis of Nonhuman Forensic DNA Evidence (3) FOR 400: Comparative Forensics (3) FOR 401 / PTX 401: Forensic Toxicology (3) FOR 402: Forensic Biology (3) FOR 414: Fundamentals of Forensic Entomology (4) FOR 425: Analytical Chemistry for Life Sciences (3) FOR 426: Analytical Chemistry for Life Sciences Lab (2) FOR 447 / LSC 447: Molecular Genetics Laboratory (1) FOR 480 / LSC 480: Advanced Topics in Human Forensic DNA Typing (3) LSC 322: Fundamentals of Ecology Laboratory (1)

LSC 347: Fundamentals of Genetics (3) LSC 348: Fundamentals of Genetics Laboratory (1) LSC 359: Animal Physiology Laboratory (1) LSC 362: The Human Environment (3) LSC 363: Genes, Race, Gender, and Society (3) LSC 430: Environmental and Human Toxicology (4) LSC 432 / PTX 432: Fundamentals of Pharmacology (3) LSC 434: Marine Ecology (3) LSC 475 / PTX 475: Principles of Toxicology (3) LSC 494: Molecular Biology (3) MIC 443: The Microbial Universe (3) MIC 444: The Microbial Universe Laboratory (1) PLB 308: Plant Physiology (4) PLB 310: The Flora of Arizona (4) PTX 301: Basics of Pharmacology and Toxicology (3) PTX 450: Pharmacology and Toxicology Laboratory (1)

Prerequisite courses may be needed in order to complete the requirements of this minor.

### **Enrollment requirements**

#### GPA Requirement: None

**Incompatible Majors:** BA and BS in biology; BA and BS in environmental science; BS in biology (pharmacology/toxicology); BS in biotechnology and bioenterprise; BS in forensic science; BS in pharmacology and toxicology

#### Other Enrollment Requirements: None

Current ASU undergraduate students may pursue a minor and have it recognized on their ASU transcript at graduation. Minor requirements appear on the degree audit once the minor is added. Certain major and minor combinations may be deemed inappropriate by the college or department of either the major program or the minor. Courses taken for the minor may not count toward both the major and minor.

### **Career opportunities**

Graduates who have included this minor with their major have a wide variety of options. They are prepared to pursue graduate studies or seek careers in such diverse areas as environmental management and conservation, health professions, laboratory research, primary and secondary school teaching, science advisement to businesses and government, and science writing.

## **Contact information**

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