

A. Current Catalog Copy

BIOLOGY MAJOR, BS DEGREE

A. General Education Core Requirement/38 credits

PHIL 315 or 316 is required for General Education Goal 12.

BIOL 490, 492, 496, 498 or SCED 482 is required for General Education Goal 14.

B. Additional Degree Requirements/7 credits

Mathematics/Computer Science/3 credits

CHEM 111/4 credits

C. Major Requirements/58 credits

Core Curriculum (required of all biology majors)

BIOL 121 The Unity of Life/4 credits

BIOL 122 The Diversity of Life/4 credits

BIOL 324 Genetics/4 credits

BIOL 341 General Ecology/4 credits

BIOL 399 Evolution/3 credits

BIOL 400 Unifying Biological Principles/3 credits

CHEM 111 Fundamentals of Chemistry I/4 credits

(satisfied by Additional Degree Requirements)

CHEM 112 Fundamentals of Chemistry II/4 credits

CHEM 305 Organic Chemistry I/3 credits

CHEM 306 Organic Chemistry II/3 credits

CHEM 307 Organic Chemistry Laboratory I/1 credit

CHEM 308 Organic Chemistry Laboratory II/1 credit

PHYS 101 General Physics I/4 credits

or PHYS 201 University Physics I/4 credits *

PHYS 102 General Physics II/4 credits (exempts from General Education Goal 6)

or PHYS 202 University Physics II/4 credits (exempts from General Education Goal 6)

*PHYS 101 is a prerequisite for PHYS 102. PHYS 201 is a prerequisite for PHYS 202.

BIOLOGY MAJORS MUST CHOOSE ONE OF THE FOLLOWING CONCENTRATIONS:

Ecology and Evolutionary Biology Concentration/20 credit hours

Choose three courses from the following:

BIOL 303 Vertebrate Morphology/4 credits

BIOL 306 Vertebrate Physiology/4 credits

BIOL 308 Plant Form and Function/4 credits

BIOL 361 Aquatic Ecology/5 credits

BIOL 430 Conservation Biology/4 credits

BIOL 435 Advanced Ecology/4 credits

Choose an additional 8 credits of biology electives from BIOL 206-498.

General Biology Concentration/20 credit hours

Choose 20 credits of biology electives from BIOL 206-498.

Health/Biomedical Concentration/20 credit hours

Choose three courses from the following:

BIOL 206 Human Anatomy and Physiology I/4 credits
BIOL 207 Human Anatomy and Physiology II/4 credits
BIOL 304 Microbiology/5 credits
BIOL 404 Immunology/4 credits
BIOL 412 Biochemistry/4 credits
BIOL 426 Cell Biology/4 credits

Choose at least 7 credits of biology electives from BIOL 206-498.

The health/biomedical concentration is designed for students planning further study leading to a health career, such as in medicine, dentistry, veterinary medicine, nursing, physical and occupational therapy, and medical technology, or for those planning to pursue graduate education in the biomedical sciences.

D. General Electives BS Degree (non-teaching majors)/17 credits

E. Secondary Teaching Endorsement, Grades 6-12/38 credits

EASC 300 The Dynamic Planet /3 credits
EDUC 245 Human Growth and Development/3 credits
EDUC 260 Introduction to the Teaching Profession/2 credits
EDUC 370 Practicum II/3 credits
EDUC 432 Content Area Literacy/3 credits
EDUC 455 Principles of Secondary Education/1 credit
EDUC 473 Inquiry into the Classroom Community/3 credits
EDUC 487 Classroom Management and System Issues/3 credits
SPED 489 Survey of Exceptional Children/3 credits
SCED 352 Science for Secondary Teachers/3 credits
SCED 482 Directed Teaching in the Secondary School/12 credits (one credit counted in General Education Goal 14)

*For additional endorsement to teach Chemistry Minor in Chemistry/24 credits.

*For additional endorsement to teach Physics Minor in Physics/24 credits.

*Students seeking endorsement in these areas must meet criteria established by the State Department of Education.

F. Total Credits Required for BS in Biology/120

Total Credits Required for BS in Biology with Secondary Teaching Endorsement/141

A. Proposed Revisions in Catalog Copy

BIOLOGY MAJOR, BS DEGREE

A. General Education Core Requirement/38 credits

PHIL 315 or 316 is required for General Education Goal 12.

BIOL 490, 492, 496, *or* 498 ~~or SCED 482~~ is required for General Education Goal 14.

B. Additional Degree Requirements/7 credits

Mathematics/Computer Science/3 credits

CHEM 111/4 credits

C. Major Requirements/58 credits

Core Curriculum (required of all biology majors)

BIOL 121 The Unity of Life/4 credits

BIOL 122 The Diversity of Life/4 credits

BIOL 324 Genetics/4 credits

BIOL 341 General Ecology/4 credits

BIOL 399 Evolution/3 credits

BIOL 400 Unifying Biological Principles/3 credits

CHEM 111 Fundamentals of Chemistry I/4 credits

(satisfied by Additional Degree Requirements)

CHEM 112 Fundamentals of Chemistry II/4 credits

CHEM 305 Organic Chemistry I/3 credits

CHEM 306 Organic Chemistry II/3 credits

CHEM 307 Organic Chemistry Laboratory I/1 credit

CHEM 308 Organic Chemistry Laboratory II/1 credit

PHYS 101 General Physics I/4 credits

or PHYS 201 University Physics I/4 credits *

PHYS 102 General Physics II/4 credits (exempts from General Education Goal 6)

or PHYS 202 University Physics II/4 credits (exempts from General Education Goal 6)

*PHYS 101 is a prerequisite for PHYS 102. PHYS 201 is a prerequisite for PHYS 202.

BIOLOGY MAJORS MUST CHOOSE ONE OF THE FOLLOWING CONCENTRATIONS:

Ecology and Evolutionary Biology Concentration/20 credit hours

Choose three courses from the following:

BIOL 303 Vertebrate Morphology/4 credits

BIOL 306 Vertebrate Physiology/4 credits

BIOL 308 Plant Form and Function/4 credits

BIOL 361 Aquatic Ecology/5 credits

BIOL 430 Conservation Biology/4 credits

BIOL 435 Advanced Ecology/4 credits

Choose an additional 8 credits of biology electives from BIOL 206-498.

General Biology Concentration/20 credit hours

Choose 20 credits of biology electives from BIOL 206-498.

Health/Biomedical Concentration/20 credit hours

Choose three courses from the following:

BIOL 206 Human Anatomy and Physiology I/4 credits
BIOL 207 Human Anatomy and Physiology II/4 credits
BIOL 304 Microbiology/5 credits
BIOL 404 Immunology/4 credits
BIOL 412 Biochemistry/4 credits
BIOL 426 Cell Biology/4 credits

Choose at least 7 credits of biology electives from BIOL 206-498.

The health/biomedical concentration is designed for students planning further study leading to a health career, such as in medicine, dentistry, veterinary medicine, nursing, physical and occupational therapy, and medical technology, or for those planning to pursue graduate education in the biomedical sciences.

D. General Electives BS Degree (~~non-teaching majors~~)/17 credits

E. ~~Secondary Teaching Endorsement, Grades 6-12/38 credits~~

~~EASC 300 The Dynamic Planet /3 credits
EDUC 245 Human Growth and Development/3 credits
EDUC 260 Introduction to the Teaching Profession/2 credits
EDUC 370 Practicum II/3 credits
EDUC 432 Content Area Literacy/3 credits
EDUC 455 Principles of Secondary Education/1 credit
EDUC 473 Inquiry into the Classroom Community/3 credits
EDUC 487 Classroom Management and System Issues/3 credits
SPED 489 Survey of Exceptional Children/3 credits
SCED 352 Science for Secondary Teachers/3 credits
SCED 482 Directed Teaching in the Secondary School/12 credits (one credit counted in General Education Goal 14)~~

~~*For additional endorsement to teach Chemistry Minor in Chemistry/24 credits.~~

~~*For additional endorsement to teach Physics Minor in Physics/24 credits.~~

~~*Students seeking endorsement in these areas must meet criteria established by the State Department of Education.~~

F. E. Total Credits Required for BS in Biology/120

~~Total Credits Required for BS in Biology with Secondary Teaching Endorsement/141~~

The following is a completely new addition to the catalog

BIOLOGY MAJOR, BS DEGREE
Teacher Preparation in Biology Concentration

A. General Education Core Requirement/38 credits
PHYS 103 is recommended for General Education Goal 6.
PHIL 315 or 316 is required for General Education Goal 12.
SCED 490 is required for General Education Goal 14.

B. Additional Degree Requirements/7 credits
Mathematics/Computer Science/3 credits
CHEM 111/4 credits

C. Major Requirements/49 credits

BIOL 121 The Unity of Life/4 credits

BIOL 122 The Diversity of Life/4 credits

BIOL 324 Genetics/4 credits

BIOL 341 General Ecology/4 credits

BIOL 399 Evolution/3 credits

BIOL 400 Unifying Biological Principles/3 credits

CHEM 111 Fundamentals of Chemistry I/4 credits
(satisfied by Additional Degree Requirements)

CHEM 112 Fundamentals of Chemistry II/4 credits

CHEM 305 Organic Chemistry I/3 credits

CHEM 306 Organic Chemistry II/3 credits

CHEM 307 Organic Chemistry Laboratory I/1 credit

CHEM 308 Organic Chemistry Laboratory II/1 credit

PHYS 103 Conceptual Physics I/4 credits (satisfied if taken for General Education Goal 6)

Biology electives - Choose 15 credits of biology electives from BIOL 206-498.

D. Secondary Education Licensure, Grades 6-12/36 credits

EASC 300 Dynamic Planet/3 credits

EDUC 245 Human Growth and Development/3 credits

EDUC 260 Introduction to the Teaching Profession/2 credits

EDUC 432 Content Area Literacy/3 credits

EDUC 473 Inquiry into the Classroom Community/3 credits

EDUC 487 Classroom Management & Systems/3 credits

SCED 152 Principles of Secondary Education in Science /1 credit

SCED 252 Practicum in Science Education I/2 credits

SCED 451 The Teaching of Secondary Science/2 credits

SCED 482 Directed Teaching in the Secondary School/12 9 credits

SCED 490 Research Methods in Science Education/3 credits (1 of these 3 credits satisfies General Education Goal 14)

SPED 489 Survey of Exceptional Children/3 credit

***For additional endorsement to teach Chemistry, Minor in Chemistry/24 credits**

***For additional endorsement to teach Physics, Minor in Physics/24 credits**

***Students seeking endorsement in these areas must meet criteria established by the State Department of Education.**

E. Total credits required for BS in Biology with secondary science endorsement/130