

Purdue University College of Science

Biology Minor (BIOS)

The following courses describe the minimum coursework necessary to earn a minor in Biology.

ALL COURSES FOR THIS MINOR MUST BE TAKEN AT PURDUE UNIVERSITY.

At least one-half of these courses must be taken on the West Lafayette Campus.

A 2.0 or higher average is required in courses used to complete the minor.

Part I - Complete the following courses¹: (7-8 credits)

BIOL 12100	Diversity, Ecology, and Behavior (2 cr.)
BIOL 13100	Development, Structure and Function of Organisms (3 cr.)
BIOL 13500 ²	First Year Biology Lab (2 cr.)
<u>OR</u>	
BIOL 11000	Fundamentals of Biology 1 (4 cr) (AP credit for BIOL 11000-11100 is acceptable)
BIOL 11100	Fundamentals of Biology 2 (4 cr)

Part II - Complete the following courses: (6 credits)

BIOL 23100	Cell Structure & Function (3 cr.) or BIOL 23000 Biology of the Living Cell (3 cr)
BIOL 24100	Genetics and Molecular Biology (3 cr.) or AGRY 32000 Genetics (3 cr.)

Part III - Complete one of the following courses: (2-4 credits)

BIOL 28600	Introduction to Ecology & Evolution (2 cr.; spring)	BIOL 53300	Medical Microbiology (3 cr.; fall)
BIOL 30100 ³	Human Anatomy & Physiology (3 cr.; fall)	BIOL 53700	Immunology (3 cr.; spring)
BIOL 30200 ³	Human Anatomy & Physiology (3 cr.; spring)	BIOL 53800	Molecular, Cellular & Developmental Neurobiology (3 cr.; spring)
BIOL 32800 ⁴	Principles of Physiology (4 cr.; spring)	BIOL 55900	Endocrinology (3 cr.; fall)
BIOL 36700	Principles of Development (2 cr.; spring)	BIOL 56200	Neural Systems (3 cr.; spring)
BIOL 39500 ⁴	Macromolecules (3 cr.; fall)	BIOL 56310	Protein Bioinformatics (3 cr.; spring)
BIOL 41500	Intro. to Molecular Biology (3 cr.; spring)	BIOL 58000	Evolution (3 cr.; fall)
BIOL 41600	Viruses and Viral Disease (3 cr.; spring)	BIOL 58210	Ecological Statistics (3 cr.; spring)
BIOL 42000	Eukaryotic Cell Biology (3 cr.; fall)	BIOL 58705	Animal Communication (3 cr.; alternate fall)
BIOL 43200	Reproductive Physiology (3 cr.; alternate fall)	BIOL 59200	Evolution of Behavior (3 cr.; alternate spring)
BIOL 43600	Neurobiology (3 cr.; fall)	BIOL 59500	Disease Ecology (3 cr.; spring)
BIOL 43800	General Microbiology (3 cr.; fall)	BIOL 59500	Epigenetics of Health & Disease (3 cr.; fall)
BIOL 44400	Human Genetics (3 cr.; fall)	BIOL 59500	Methods & Measurement in Physical Biochemistry (3 cr.; fall)
BIOL 44600	Molecular Bacterial Pathogenesis (3 cr.; spring)	BIOL 59500	Neural Mechanisms in Health & Disease (3 cr.; spring)
BIOL 47800	Intro to Bioinformatics (3 cr.; fall)	BIOL 59500	Neurobiology in Learning & Memory (3 cr.; fall)
BIOL 48100	Eukaryotic Genetics (3 cr.; spring)	BIOL 59500	Practical Biocomputing (3 cr.; spring)
BIOL 48300	Environmental & Conservation Biology (3 cr.; alternate spring)		
BIOL 49500	Biological & Structural Aspects of Drug Design & Action (3 cr.; spring)		
BIOL 51100	Intro. to X-Ray Crystallography (3 cr.; spring)		
BIOL 51600	Molecular Biology of Cancer (3 cr.; spring)		
BIOL 51700	Molecular Biology: Proteins (2 cr.; spring)		

Part IV - Complete at least one of the following laboratory courses:

BIOL 23200	Laboratory in Cell Structure & Function (2 cr.; fall)	BIOL 30200 ³	Human Anatomy & Physiology (3 cr.; spring)
BIOL 24200	Laboratory in Genetics & Molecular Biology (2 cr.; spring)	BIOL 32800 ⁴	Principles of Physiology (4 cr.; spring)
BIOL 30100 ³	Human Anatomy & Physiology (3 cr.; fall)	BIOL 36701	Developmental Biology (1 cr.; spring)
		BIOL 39500 ⁴	Macromolecules (3 cr.; fall)
		AGRY 32100	Genetics Laboratory (1 cr.; both)

¹ For acceptable alternatives see the back of this page.

² For alternative choices to BIOL 13500, see the back of this page.

³ If both BIOL 30100 and 30200 are completed, they will meet the requirements for Parts III and IV of the minor. BIOL 30100 or 30200 alone will not meet any requirement for the minor.

⁴ Either BIOL 32800 (Principles of Physiology) or BIOL 39500 (Macromolecules) alone will meet the requirements for Parts III and IV of the minor.

¹These complete sequences are acceptable for Part I of the Biology Minor:

West Lafayette

BIOL 19500 Biodiversity, Ecology & Evolution

BIOL 19500 Organismal Dev & Physiology

BIOL 13500² First Year Biology Lab (2 cr.)

IUPUI

BIOL K1010 Concepts of Biology I

BIOL K1030 Concepts of Biology II

Calumet

BIOL 10100 Introductory Biology

BIOL 10200 Introductory Biology

North Central (PNC)

BIOL 12100 Biology I: Diversity, Ecology and Behavior

BIOL 13100 Biology II: Structure, Function and Development

BIOL 11600 Laboratory in Biology I: Diversity, Ecology and Behavior

BIOL 11800 Laboratory in Biology II: Structure, Function and Development

Ft. Wayne (IPFW)

BIOL 11700 Principles of Ecology and Evolution

BIOL 11900 Principles of Structure and Function

Ft. Wayne (IPFW)

BIOL 10800 Biology of Plants

BIOL 10900 Biology of Animals

²These courses are acceptable alternatives to BIOL 13500:

BIOL 14501 1st Year Biology Lab w/Neuro Research Project (2 cr.; fall)

BIOL 14502 1st Year Biology Lab w/Micro Research Project (2 cr.; spring)

BIOL 19500 Year I Bio Lab: Disease Ecology

IT 22600 Biotechnology Lab (2 cr.; fall)