

Department of Biology

Course Catalog - Fall 2025

Department Overview:

The Department of Biology provides strong foundations in molecular biology, ecology, and organismal biology. Students participate in laboratory courses, field studies, and research projects that prepare them for careers in research, healthcare, and environmental science.

Course Listings

Course Code: BIO 101

Course Title: General Biology I

Credits: 4

Description: Cell structure, metabolism, genetics, evolution, and basic ecology. Includes weekly lab sessions focusing on microscopy and experimental design.

Prerequisites: None

Instructor: Dr. Rosalind Franklin

Schedule: Mon/Wed/Fri 9:00 AM - 10:20 AM (Lab Wed)

Course Code: BIO 102

Course Title: General Biology II

Credits: 4

Description: Continuation of BIO 101: plant biology, animal physiology, and biodiversity. Lab and fieldwork components emphasize data collection.

Prerequisites: BIO 101

Instructor: Prof. James Watson

Schedule: Tue/Thu 9:30 AM - 10:50 AM (Lab Thu)

Course Code: BIO 210

Course Title: Genetics

Credits: 3

Description: Mendelian genetics, molecular genetics techniques, gene expression, and basic population genetics. Labs include PCR and gel electrophoresis.

Prerequisites: BIO 101

Instructor: Dr. Barbara McClintock

Schedule: Mon/Wed 2:00 PM - 3:15 PM

Course Code: BIO 230

Course Title: Cell Biology

Credits: 3

Description: Cell structure and function, signaling, membrane dynamics, and microscopy techniques.

Laboratory emphasizes imaging and cell culture basics.

Prerequisites: BIO 101

Instructor: Prof. Christiane Nüsslein-Volhard

Schedule: Tue/Thu 1:00 PM - 2:15 PM

Course Code: BIO 300

Course Title: Microbiology

Credits: 3

Description: Microbial diversity, physiology, and pathogenicity. Lab includes sterile technique, culturing, and microscopy.

Prerequisites: BIO 102

Instructor: Dr. Louis Pasteur

Schedule: Wed/Fri 11:00 AM - 12:15 PM (Lab Fri)

Course Code: BIO 320

Course Title: Ecology

Credits: 3

Description: Ecosystem dynamics, population ecology, and conservation biology. Field trips and data analysis projects included.

Prerequisites: BIO 102

Instructor: Prof. Rachel Carson

Schedule: Tue 3:00 PM - 5:45 PM (Field Lab)

Course Code: BIO 350

Course Title: Molecular Biology

Credits: 3

Description: DNA replication, transcription, translation, and recombinant DNA techniques. Lab work includes cloning and sequence analysis.

Prerequisites: BIO 210

Instructor: Dr. Jennifer Doudna

Schedule: Mon/Wed 4:00 PM - 5:15 PM

Course Code: BIO 370

Course Title: Physiology

Credits: 3

Description: Comparative physiology of animals, focusing on organ systems, homeostasis, and experimental methods.

Prerequisites: BIO 102

Instructor: Prof. Eric Kandel

Schedule: Tue/Thu 11:00 AM - 12:15 PM

Course Code: BIO 410

Course Title: Developmental Biology

Credits: 3

Description: Embryonic development, pattern formation, and developmental genetics. Labs include imaging and model organism studies.

Prerequisites: BIO 230

Instructor: Dr. Sean Carroll

Schedule: Wed 2:00 PM - 4:50 PM (Lab)

Course Code: BIO 480

Course Title: Undergraduate Research in Biology

Credits: 3

Description: Independent research project under faculty supervision resulting in a written report and oral presentation.

Prerequisites: Permission of Instructor (usually after BIO 300 or BIO 350)

Instructor: Research Faculty Team

Schedule: Variable - by arrangement