

Teacher Certification

Teacher certification for Biology consists of completing the major requirements for Biology and at least one semester of organic chemistry, chosen from the following:

CHEM 250 Fundamental Organic Chemistry
OR

CHEM 305 Organic Chemistry I

Refer to the Education Department listings for additional certification requirements.

Articulation Programs

The department has pursued articulation programs with other institutions in other fields as well. These include **Veterinary Medicine** with Virginia Tech, **Physical Therapy** with Shenandoah University, and **Forestry** with Duke University. The department also articulates mentored internships with numerous local and regional governmental agencies, clinics, industries, and research labs. Recently, biology majors have interned with the Virginia Commission of Game and Inland Fisheries, the Wildlife Center of Virginia, the Virginia Department of Environmental Quality, West Virginia State University research labs, local hospitals, industries, and veterinary clinics.

COURSES

BIOL 100 The Nature of the Biological World 4 Credits F, S

A survey of the discipline of biology designed for the non-major. Content varies with the expertise of the instructor, but all sections focus on the relevance/importance of biology in everyday life. Laboratory focuses on understanding science as a process and includes an independent research project with oral presentation. Three lectures and one lab per week.

General Education: Natural Science

BIOL 205 The Biology of Horses 3 Credits I

An introduction to morphology, physiology, genetics, and reproductive biology, using the horse as the object of study. Elements of applied animal behavior, breed variations, nutrition, disease pathology, and livestock management will be illustrated during the field trips, which will include visits to the Maryland-Virginia Regional College of Veterinary Medicine, the Virginia Equine Research Center, the Eastern Regional Veterinary Pathology Laboratory, and selected horse breeding farms in central and western Virginia.

BIOL 207 Organisms I 4 Credits F, S

A survey of the biodiversity of the Monera, Fungi and Plant Kingdoms, as well as an introduction to cellular biology: structure, function, chemistry, DNA, genetics and metabolism. Three lectures and one laboratory per week.

General Education: Natural Science

BIOL 208 Organisms II 4 Credits F, S

A survey of the biodiversity of the Protist and Animal Kingdoms, as well as an introduction to ecology and evolution. Three lectures and one laboratory per week.

General Education: Natural Science

Note: Either BIOL 207 or 208 may be taken first in the sequence

BIOL 210 Hijacking Genes 3 Credits I

An exploration of promises, applications, and expectations of modern molecular biology, including movement of genes among species, DNA in criminology, and advances that might make us free of disease and hunger.

Prerequisites: BIOL 100, 207 or 208, or permission of instructor