

# Biology (BIOLOGY)

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## Courses

### **BIOLOGY 510. Plant Taxonomy. 3 Credits.**

Identification and classification of vascular plants of North America, emphasizing flora of Wisconsin and including topics in evolution of vascular plants.

P: Biology 202 with at least a C grade and Biology 203 with at least a C grade, or transfer cse Biology 003.

Spring.

### **BIOLOGY 511. Plant Physiology. 4 Credits.**

General physiology of vascular plants within the context of a plant life cycle: seed dormancy and germination, metabolism, transport systems, mineral nutrition, patterns of plant growth and development, growth regulators, reproduction and senescence.

P: gr st.

Fall Only.

### **BIOLOGY 512. Mycology. 3 Credits.**

Morphology, taxonomy and studies of fungi in medical mycology, allergies, antibiotic production, brewing, baking and other industries; poisonous edible and plant pathogenic fungi; techniques in collection, isolation, pure culture and identification.

P: gr student

Spring.

### **BIOLOGY 520. Field Botany. 3 Credits.**

Identification and natural history of plants indigenous to northeastern Wisconsin. .

P: Biology 202 with at least a C grade and Biology 203 with at least a C grade, or transfer cse Biology 003.

Fall Only.

### **BIOLOGY 542. Ornithology. 3 Credits.**

Overview of avian biology, emphasizing adaptation and ecology. Identification of North American bird species and other avian families. Region's most interesting birding areas.

P: Biology 202 with at least a C grade and Biology 203 with at least a C grade, or transfer cse Biology 002.

Spring Even.

### **BIOLOGY 543. Mammalogy. 3 Credits.**

Comprehensive study of mammals, including systematics, anatomy, physiology, behavior, and ecology. Laboratory studies include work with specimens from the Richter Natural History Museum.

P: gr st.

Spring Odd.

### **BIOLOGY 553. Invertebrate Biology. 4 Credits.**

Survey of invertebrate animals. A phylum-by-phylum survey examining defining characters, structure, function, life cycles, and ecology of invertebrate animals. Lab focuses on identification of invertebrates living in Wisconsin.

P: gr st.

Fall Odd.

### **BIOLOGY 555. Entomology. 3 Credits.**

Structure, function, diversity, and ecology of insects, as well as their impact on human society. Lab develops ability to identify Wisconsin insects, both in the field and by examining microscopic anatomy.

P: gr st.

Fall Even.

### **BIOLOGY 602. Advanced Microbiology. 4 Credits.**

Detailed study of microorganisms from viruses to fungi in their environment. Study of both free-living and pathogenic organisms and their degrading abilities.

P: gr st.

Spring Even.

### **BIOLOGY 607. Molecular Biology. 3 Credits.**

Molecular approaches to biological problems, emphasizing study of informational macro molecules. Topics include replication, control, expression, organization, and manipulation of genes; RNA processing; protein processing; transposons; oncogenes, growth factors; genetic control of development and the immune system.

P: gr st.

Spring Odd.

**BIOLOGY 608. Molecular Biology Laboratory. 1 Credit.**

Molecular biology of nucleic acids and the techniques that form the basis of biotechnology. Topics include electrophoresis, restriction mapping, hybridization, plasmid analysis, and DNA cloning (recombinant DNA library construction, screening, and mapping).

P: gr st.

Spring Odd.

**BIOLOGY 699. Travel Course. 1-6 Credits.**

Travel courses are conducted to various parts of the world and are led by one or more faculty members. May be repeated to different locations.

P: cons of instr & prior trip arr & financial deposit.