Summer 2018 Zoology Course Offerings

**Animal Biology (Biology/Zoology 101)**

General biological principles. Topics include: evolution, ecology, animal behavior, cell structure and function, genetics and molecular genetics and the physiology of a variety of organ systems emphasizing function in humans.

Pre-Reqs: Not recommended for students with credit already in Zoology/Biology/Botany 151 or 152

**Animal Biology Lab (Biology/Zoology 102)**

General concepts of animal biology at an introductory level. The general body plans and strategies used to accomplish the basic tasks of staying alive of 9 major animal groups are studied using preserved and live animals. The diversity within each group of animals is studied by integrating the body plans with the lifestyle and ecology of the animals. The evolutionary relationships between the animals is a major part of the course. Dissections of earthworm, freshwater mussel, squid, sea star, and rat also aid the study of these general principles.

Pre-Reqs: Not recommended for students with credit already in Zoology/Biology/Botany 151/152

**Introductory Ecology (Botany/Envir St/Zoology 260)**

For nonbiology students: the relationships of organisms and the environment. Population dynamics and community organization, human-environment relationships, action programs.

Pre-Reqs: Open to Freshmen. Does not count toward Botany or Zoology major

**Evolutionary Biology (Anthro/Botany/Zoology 410)**

Evolutionary biology, emphasizing how modern scientists study evolution. Topics include: nature and mechanisms of microevolution, macroevolution, adaptation, speciation; systematics and taxonomy; quantitative genetics and measurement of natural selection; phylogenetic analyses of behavior, physiology, morphology, biochemistry; current controversies in evolution.

Pre-Reqs: An elem course in zool or botany & So st; Genetics/Botany/Zool 160 or 466 recommended

**Midwestern Ecological Issues: A Case Study Approach (Botany/Zoology 450)**

This web course explores how ecological principles can be used to address contemporary environmental issues such as water quality, invasive species, and population growth. Emphasis on midwestern issues, practical approaches, the role of history, and geographic context.

Pre-Reqs: Intro biology crse, interest in solving problems

**General Ecology (Botany/F&W Ecol/Zoology 460)**

Ecology of individual organisms, populations, communities, ecosystems, landscapes, and the biosphere. The interaction of organisms with each other and their physical environment. These relationships are studied, often in quantitative terms, in both field and laboratory settings; lecture and lab.

Pre-Reqs: Intro course in botany & zoology, or Bot/Zoo 151-152, or Biocore 301 or 333; for biol sci majors only

**Neurobiology (NTP/Psych/Zoology 523)**

Basic mechanisms in cellular neurophysiology: electrophysiology and chemistry of nerve signals, mechanisms in integration, simple nervous pathways and their behavioral correlates.

Pre-Reqs: Biocore 323 or Zool 151/152 or Zool 101 plus an additional zool crse & a yr each of chem & physics