

Biology of Fishes
FW 315

Credit hours: 3

Term offered: Fall

Instructor: Doug Reese

Course objectives: To survey the diversity of biological adaptations of fishes. The primary interconnecting theme is the response of vertebrate organization to life in water. Fundamental physiological, autecological and zoogeographic concepts that apply differentially to aquatic and marine organisms are emphasized. The biology of reproduction receives disproportionate emphasis. Evolution is presented in terms of cladogenesis and the morphological, behavioral and genetic evidence of evolution is presented as case examples.

Course content:

- 1) Understand the basics of vertebrate physiology in water (osmoregulation, buoyancy, locomotion, thermal regulation and respiration);
- 2) Understand the evolutionary and ecological importance of different life history and reproductive strategies;
- 3) Be familiar with information used to evaluate zoogeographic patterns; and
- 4) Be familiar with issues surrounding conservation of fishes.

Prerequisites: One year of biology.

Text: The Diversity of Fishes, Helfman et. al.

Term papers: None

Testing: 2 midterms and a final.

Students for whom the course is intended: Fisheries and zoology majors, and related environmental science majors.