

Environmental Physiology of Fishes
FW 471/571

Credit hours: 4

Term offered: Winter, alternate years W09,11

Instructor: Schreck

Course Objectives: To provide an understanding of the relationship of fish to their environment through the study of physiological ecology with emphasis on organization, control mechanisms and capacity for performance. This course should prepare students to be able to think about how fish habitat quality could affect fish fitness and to be able to use this information in making management or research decisions.

Course Content:

Performance Capacity	Disease Resistance	Environmental Factors:
Life History	Growth	Temperature,
Genetics	Respiration	Salinity,
Embryology	Metabolism	Light,
Metamorphosis	Nutrition	Electricity,
Senescence	Digestion	Sound
Endocrinology	Pheromones	Gases
Stress	Orientation	Current
Reproduction	Learning	Acidity
Hydromineral Balance	Rhythms	Social Interactions

Prerequisites: FW 315; BI 370 or 371.

Text: No text is required, but it is recommended that students familiarize themselves with the series of books edited by W.S. Hoar and D.J. Randall entitled FISH PHYSIOLOGY. A list of selected references on each subject covered in the course will be handed out. Those papers marked with an asterisk (*) are required reading and will be made available at Reserved Reading in Kerr Library.

Term paper: A term paper following the style of a scientific journal (10 pages maximum, double-spaced) will be written on the water quality standard and a lecture on the subject will be delivered to the class. The term paper is worth 50 points and the lecture is worth 25 points.

Testing: There will be one (1) hourly examination and a comprehensive oral final examination. Each examination will be worth 100 points.

Students for Whom the Course is Intended: Recommended for advanced upper division and graduate students interested in the biology of fishes.