

TO REGISTER FOR COURSES:

Log into MyFAU; Click FAU Self-Service (left side of screen); Click Student Services. Be sure to check for holds prior to registering. For instructions, see <http://www.fau.edu/uas/registration.php>

BSC 4930-01H/ CRN 15736/ Honors Evolution of Human Behavior

Dr. Erik Duboué

T/R 3:30pm-4:50pm

Prereqs: BSC 1010 and BSC 1011 (especially the latter); PCB 3063 is recommended but not required.

Course description: Human behavior is complex and has evolved to meet our demands. This class will compare behaviors between humans and closely related great ape species. The class will first assess how human behavior has evolved and why it has survived, and then explore how behaviors arise, and why they have been shaped the way they have. The course will be reading intensive and will be centered on discussion of the topics as a group.

BSC 4930-02H, CRN 15787, Honors Experimental Neurobehavior

Dr. Maureen Hahn, FAU Brain Institute and College of Medicine

TR 9:30-10:50

Prereqs: 8 credits of PCB, PSB, or BSC

Course description: The course shows students how human neuropsychiatric and neurological disorders can be addressed through studying behavior in mice. This course will examine how mice are employed in behavioral testing in order to understand such disorders as anxiety and depression, attention deficit hyperactivity disorder, and autism spectrum disorder. The course will explore genetic models in mice based on human disease-associated genes. Students will use video-tracking software to perform quantitative analyses of mouse behavior

Course: IDS 3930-02H, CRN 15826 Honors Excel

Instructor: Bharat Verma

Schedule: MW 2:00-3:20p

Prerequisites: None

Description: This is an introductory course covering basic Excel skills for managing information and data, analyzing data, and visualizing data through charts and pivot tables, creating scenarios, using functions and automating tasks.

Course info: PCB 4932C, CRN 16102, Honors Neurophysiology

Dr. Jennifer Krill

W 12:00pm – 4:00pm

Prerequisites: BSC 1010, BSC 1010L

Course description:

Neurophysiology will bring the students closer to understanding neurophysiological signaling at the cellular level and whole animal by using actual wet laboratory experiences supplemented with lectures. We will look at signaling from the perspective of the electrical properties of neurons and their signaling, the basis for all neuronal function. The students will learn through both theory and practical laboratory experiences. Students will develop the skills necessary to design an experiment to answer their own unique research question as well as communicate their experimental findings. This is a research-intensive course. BSC1010 and lab prerequisite. Permission of instructor required.

Course Details:

Students use earthworms and crickets to learn concepts of cellular neuroscience and electrophysiology techniques. In the wet lab, students will become familiar with electrophysiology equipment including a stimulator, amplifier, oscilloscope and faraday cage. Students will anesthetize invertebrates and insert electrodes into the animals to stimulate individual neurons and record their output. Students will explore concepts like excitability, threshold, conduction velocity, and refractory period of different neurons and manipulate parameters of temperature, ions, and drugs to determine their effects on neuronal firing. Students will then use the concepts and techniques they have learned in lab to develop and test their own unique research question in an independent project.

Types of assignments:

- Quizzes
- Neurons in Action Simulation- simulations will help students explore concepts of cellular neuroscience and replicate experimental wet lab procedures.
- Lab Reports- students will write up their experimental findings in the format of a scientific journal article.
- Posters and Oral Presentations- students will present their independent project experimental findings in the format of a scientific poster and oral presentation.