Psychophysiology Lecture and Lab (804/711)

Fall, 2002

Course Name: Psychophysiology (804) and Psychophysiology lab (711)
Instructors: John Curtin & Eddie Harmon-Jones
Class Meetings: Monday, 1:30 – 4:50pm
Office Hours: by appointment
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Course Website: http://dionysus.psych.wisc.edu/courses/psy804/psy804.htm

Required Readings:

Available from: Amazon.com (4 used copies currently available) and Underground Textbooks (3 used copies currently available)

Course Description & Structure

This course will provide an overview of the principles, theory, and applications of psychophysiological assessment. The course has two main goals: a) to provide an introduction to theory and research in major areas of human psychophysiology with a particular emphasis on psychophysiological correlates and physiological substrates of cognition, affect, and psychopathology; and b) to provide an introduction to laboratory techniques and methodological principles in human psychophysiology.

The course will involve a combination of lecture, discussion, demonstrations, and laboratory exercises. We will bring in samples of physiological signals for us to examine, and if you have psychophysiological data you are interested in examining, please let me know. You will get more out of the course if you ask questions as they arise. We will be covering technical material, and you should feel quite free to interject your questions as they arise.

Course Requirements and Grades

Course requirements include regular attendance, active participation in class discussion, and completion of all assignments and the course project.

At Week 11, you will be required to turn in a 5-10 page paper (typed, double-spaced) that proposes an experiment that would test a novel hypothesis using psychophysiological measure(s). The paper should include a short introduction that justifies your hypothesis and a full method section.

On Week 12, you should be prepared to give a 15-20 min oral presentation of your written proposal, which was turned in on Week 11. In addition, you will also turn in a stimulus control program (for DMDX or other software) that demonstrates your experimental paradigm. Your program will be graded S/U based on whether it executes with error and captures the main features of your experimental task/paradigm.

After the oral presentations, the class will vote for which 2 proposals should be conducted in class. Two groups of students will be formed. You will be expected to participate in data collection (3 participants should be run), processing, and analysis of your group project.

A final group paper that summarizes the results of your group project will be due: December 18, 2002.

At various points during the semester, we will ask you to complete anonymous course evaluations. This will allow you an opportunity to provide us with feedback on how the course is meeting your needs and allow us to make online changes to accommodate your needs.
The schedule is provisional. We may adjust our rate of progress as necessary to ensure maximal mastery of the material. Any changes in dates/content will be announced in class and accompanied by a revised schedule.

**Introduction [Week #1: 9/9/02]**

**Electricity [Week #2: 9/16/02]**

**Skin conductance [Week #3: 9/23/02]**


**Electromyography [Week #4: 9/30/02]**


**Startle response [Week #5: 10/7/02]**


**Startle Response (continued) and Cardiovascular [Week #6: 10/14/02]**


**fMRI and brain imaging [Week #7: 10/21/02]**

**Electroencephalography [Week #8: 10/28/02]**


**EEG (continued) [Week #9: 11/04/02]**

Additional readings to be announced.

**Event related potentials [Week #10: 11/11/02]**


**ERP (continued) [Week #11: 11/18/02]**


**Weeks 12 – 14 [11/25 – 12/9] reserved for presentations, and data acquisition, processing and reduction for course project**