Course outline: PSYC 314 (Cognitive Methods)

Instructor: Zahra Hussain
Email: zahra.hussain@aub.edu.lb
Meeting times: Monday 2:00-4:30 pm
Location: Jesup 107
Office hours: Wednesday 2:00-4:00 pm
Evaluation: Four critiques (3 x 5% + final critique 10% = 25%), one test (15%), one presentation (20%) and one final paper (40%)
Course material:
2. Research articles, see schedule

Course description: This course will introduce you to signal detection theory, a useful framework for analyzing human performance on a variety of tasks. You will learn about the applications of detection theory to questions in perception, attention, memory and decision making, alongside classical experimental paradigms that investigate the same issues. The goal is to develop a clear understanding of how traditional paradigms in cognitive psychology might be enhanced by the signal detection framework.

Learning outcomes: By the end of this course, you will be able to:
1. Differentiate sensitivity from bias and calculate both measures from raw data
2. Identify key paradigms in experimental psychology, including their assumptions and caveats
3. Apply signal detection theory to research questions in psychology
4. Interpret and criticize experimental research in the areas discussed

Course policy: Class will be based around discussion of research articles and presentations, with some lecturing in which I will explain the concepts involved. There will be a few in-class exercises in which you will learn, for example, to compute dprime and bias from sample data. Please be on time to class, try to attend all classes, read all the assigned readings and come prepared for discussion with questions and ideas of your own. Attendance will not be taken, but I will be keeping track of your absences and your participation in class discussion. If you are going to miss class or be late, please let me know in advance via email or in person. If you are absent for more than three lectures, I may recommend your withdrawal from the course. Cellphones and laptops may not be used in class. I maintain the right to modify course content, method of evaluations, or the grade distribution at any point in the semester. You are responsible for keeping track of course content posted on Moodle, and for the readings assigned. This document will be updated routinely with the readings for each week.

Communication: Please email me or meet with me if you have any questions about the course material, or if you are concerned about your progress on the course. I will try to respond to emails within a 48 hour period. Please try to use the office hours where possible, and I will do my best to accommodate you outside these hours if needed.

Academic Integrity: You will be doing a lot of writing during this course. All written assignments must be in your own words. Please refer to AUB Student Code of Conduct: https://www.aub.edu.lb/it/services/students/plagiarism/Pages/home.aspx, in particular section 1.1, which concerns academic misconduct including cheating, plagiarism, in-class disruption, and dishonesty. Please be aware that misconduct is vigorously prosecuted and that AUB has a zero tolerance policy. Evidence of cheating or plagiarism will result in course failure.

Disability: AUB strives to make learning experiences accessible for all. If you anticipate or experience academic barriers due to a visible or invisible disability (including mental health, chronic or temporary medical conditions),
please inform me immediately so that we can discuss your options. To help establish reasonable accommodations and facilitate a smooth accommodations process, contact the Accessible Education Office (AEO), preferentially in the first few weeks of the semester: accessibility@aub.edu.lb; +961-1-350000, Ext. 3246; West Hall, 314. In all cases, you must provide me with an official AUB letter of accommodation from the AEO.

Course schedule and readings

Sept 4  Introduction
Sept 11 Signal detection basics
- Macmillan & Creelman, Chapters 1 & 2
Sept 18 Psychophysical methods
- Macmillan and Creelman, Chapter 11 (for reference)
Sept 25 Perception - awareness and learning 1
Oct 2 Perception - awareness and learning 2
Oct 9 Attention and Visual Search
Oct 16 Test
Oct 23 Memory
Oct 30 Memory - Applied
Nov 6 Pain and placebo effects
Nov 13  **Social cognition**  

Nov 20  **Group decision-making**  

Nov 27  **Neural mechanisms**  

Dec 4  **Caveats and other considerations**  
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