PSYCO 403/505 - Matlab for Vision Research

Tuesdays 9:00 a.m. - 11:50 a.m.
BS P Room 116

Class Schedule:

The schedule below is indicative of the topics that we will cover, although the specific dates at which we arrive to any specific topic may vary.

Jan 10: "Hello world!"
Introduction to programming. What is a vector, a matrix and how to handle them.
Let's dance to the algorithm.
Assignment 1 is given (due Jan 16).

Jan 17: My first program.
What is a variable, what kinds there are. Pointers. So… what's a program?
Basic flow control, conditional statements, different loops, first and last cases, end conditions. Logic! And yes, your first program: ENCRYPT.m.
Assignment 2 is given (due Jan 23).

Jan 24: Advanced Flow Control. Exercises.
Assignment 3 is given (due Jan 30).

Jan 31: Calculations and transformations: interacting with memory.
Functions. Computations, manipulating numbers as strings and vice-versa, reading and writing to matrices.
Assignment 4 is given (due Feb 6).

Feb 7: Images: interacting with the screen.
Draw using matrices.
Colormaps.
Read and write image files.
Assignment 5 is given (due Feb 13).

Feb 14: Applied Exercises. Reading code. Eval function.
Assignment 6 is given (due Feb 27).

Feb 21: No Class – Reading Week

Feb 28: Exam 1

Mar 7: Exam review. Debugging: the unbeatable 1%.
Breakpoints, data markers, flags, COMMENTS.
How do I know where I went wrong?
Assignment 7 is given (due Mar 13).

Mar 14: Experiments in Matlab. The Psychophysics Toolbox.
Planning an experiment and what the toolbox can do for you!
Experiment 1: RSVP with letters. Structures.
Assignment 8 is given (due Mar 20).

Mar 21: Psychophysics Toolbox 2: images and responses.
Semester projects are assigned.
Assignment 9 is given (due Mar 27).

Mar 28: Psychophysics Toolbox 3: Timing and balance.
Assignment 10 is given (due Apr 3).

Apr 4: Exam 2.

Apr 11: Last class. Wrap up, data management, excel, other small things.

Apr 21: Semester Projects are due at NOON.