830:410:Adv Topics in Psychobiology
Spring 2013
Professor Mark West

Dopamine 2013
Overview:

Our focus will be on the macro level (behavioral neuroscience) with less attention to the micro level (cellular and sub-cellular).

We'll work similar to a journal club, with one or two students presenting a research paper each class meeting, with everyone critiquing the paper. Presenting a paper requires work before class. Read the paper carefully before class and discuss it with colleagues, or come to me to discuss it.

There are several major theories of dopamine (DA) function. We will start with them beginning in the second week, and then we'll continually evaluate them throughout the course, in light of whether they are supported by original research papers that you'll present.

Each theory will "belong" to a group of 3 to 4 students, and it will be your job to keep notes each week regarding how well your theory accommodates results of research. It will NOT be your job to <u>defend</u> a theory, but rather to know it well and remember its details throughout the course in order to make these weekly evaluations. You'll be our resident authority to whom we'll turn for objective evaluations, pro or con. Each student's careful notes will be used at the end of the course in writing a final paper (one paper per student) evaluating the theory for which you are responsible.

Evaluations of theories will depend on our evaluations of weekly research papers. Poorly conducted studies may or may not have much bearing on the theories.

Objectives:

differentiate the theories: where do they overlap and where do they differ?
identify strengths and weaknesses of each theory
determine if one theory emerges as superior
identify key research questions that could resolve discrepancies

At the first meeting, I will describe the DA system in the context of Neuroanatomy.

Final grade will be based on:

67% class participation
33% final paper