

Seminar on Neural Basis of Cognition

Prof. Kevin Bath

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Office Hours: Th 10-12 in 462 Sidney Frank Hall.

Course Meeting Time: Friday 12-2:50- Metcalf 105

Course Objective: This is a seminar course that is designed to provide an understanding of the neural basis of cognition from a basic science perspective. The course will focus on discussion of parallel work in both humans and animal models to understand basic processes that contribute to normal and abnormal cognitive functioning. Through presentations, readings, and lectures, students will learn about the methods, debates, theories, and principles of this interdisciplinary field.

Attendance Policy: Attendance will be taken every class period and students are expected to attend every class. This course meets once a week. Therefore, missing a class equals missing a week of class time. This will factor into the in-class participation portion of your grade.

Evaluation: Your final grade will be made up of presentations (20%), in-class participation in discussions (20%), weekly reviews of assigned journal articles (20%), and final paper (40%).

Course Structure: The first 30 or so minutes of each class period will be reserved for class business and lecture-type presentation by the professor. The next half-hour to forty-five minutes will consist of student presentations. There are 2 readings assigned per week. Everyone will write brief reviews of those articles. In addition, two students will present the highlights of those papers to the class and generate discussion. The remaining bulk of the class period will consist of discussion and in-class exercises.

Article Reviews. These will be critical reviews of the assigned journal articles. You will summarize the paper and its findings. You will then state its major accomplishments and concerns. Finally, you will make suggestions for changes.

Final Paper. You get to be the scientist. You will choose a topic from the semester and write me a grant proposal on that topic. What is the question? How will you address it? The paper will include a background section, a significance section, a methods section, a preliminary data section (with graphs, make it up), and a human subjects section. Much more detail will be provided as the semester progresses.

Tentative Schedule

September 7	First day of class- Overview-syllabus
September 14	Primer- From Genes to Behavior
September 21	Drugs and Memory
September 28	Sex: Navigating Hormones
October 5	Forming False Memories
October 12	Stress and Memories Lost
October 19	Emotional Learning
October 26	Attention
November 2	Dementia
November 9	Cognitive Control
Nov 16	Social Behavior
November 23	Thanksgiving Recess
November 30	TBA
Dec 8th Begins Reading Period	

Readings will be posted on my courses a minimum of 2-weeks in advance. The second week of class, student will have the chance to choose a topic of interest to present, otherwise readings will be randomly assigned.