

GMS 6029: *In vivo* neurophysiology and cognitive function

Spring 2017; Monday, 12:00-1:00, Room L1-101

Course Coordinators: Andrew Maurer (drewmaurer@ufl.edu) and Sara Burke (burkes@ufl.edu)

Course objective: This is a 1-credit course primarily directed towards IDP graduate students, but students in other programs (e.g., Psychology, Clinical and Health Psychology, Pharmacology) as well as advanced undergraduates may be interested as well. The primary course objective is to review current and critical literature concerning the neurophysiological basis of learning, memory and cognitive behavior. With the ever increasing expanse of *in vivo* methods, alternative topics such as calcium imaging and immediate-early gene expression (and similar) may be discussed per coordinator approval. See below for a list of journals where you would be likely to find appropriate papers on this topic.

Expectations and grading: Students will be required to read the assigned materials, attend all classes, and fully participate in class discussions. Grades will be based on preparedness and participation in class discussion, including the quality of presentations. In practice, this means that all students are required to participate (i.e. speak, ask questions, make comments) during every class.

Satisfactory/unsatisfactory grading procedures will be used. For more information about UF grading policies see: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Attendance and make-up policy: Students are expected to attend and participate in all class sessions. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis. Absences due to illness, professional travel, etc. will be excused per UF policy. If a class is missed, the student will be required to provide a written “summary” on the paper that was discussed – this summary will consist of a description of the background and rationale, methods and results, the implications of the findings, and question or problem that the student has regarding the study.

Accommodations for students with disabilities: to request classroom accommodation because of a disability, students must first register with the Deans of Students Office (DSO). The DSO will provide documentation to you, which you then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in the coursework.

List of journals that may contain appropriate papers (not exclusive, but a good bet). These journals tend to have papers that address questions from a variety of approaches/techniques, and are comprehensive enough to both move the field forward and to sustain an hour of presentation/discussion. That doesn't mean that such papers are not published elsewhere, but these are the places we would start. Also, note that (roughly), the further up the list, the more likely it is that the papers will meet these criteria. Finally, many of these journals publish papers with supplementary online materials in addition to the paper itself. Make sure you read these materials and make them available to the class for reading as well.

Science

Nature

Cell

Nature Neuroscience

Neuron

Proceedings of the National Academy of Sciences

Hippocampus

The Journal of Neuroscience

Also, we will consider and encourage bioRxiv pre-prints!