

**PSY 371**  
**Learning and Memory**  
**Spring 2011**

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**Course Description**

This course will examine behavioral and brain mechanisms of learning and memory in humans and other animals. We will read scientific articles on different learning and memory systems (invertebrate learning, episodic and semantic encoding, motor skills acquisition, fear memory, classical and instrumental conditioning). Specific topics will also include: behavioral approaches to studying learning and memory, a survey of techniques used to analyze changes that occur in different brain areas in the course of learning, as well as principles of memory acquisition, consolidation, extinction, persistence, retrieval, forgetting, and reconsolidation. This course is intended to allow you to think critically, give constructive feedback to peers, and improve your presentation and writing skills.

**Reference text:**

No textbook will be required. You will be provided with scientific articles relevant to the material covered each week.

**Grading policy**

Oral presentation:	15%
Article summaries (~9):	20%
Midterm exam:	15%
News and views essay:	20%
News and views peer critique:	10%
Final exam:	20%

**Class format:**

Class session will include lectures, as well as student presentations and discussions of relevant journal articles assigned weekly. You are strongly encouraged to attend all classes, to ask questions, and discuss, especially during the paper presentations. You are responsible for all material covered in class.

## **Grading:**

**This course carries the Writing Flag.** Writing Flag courses are designed to give students experience with writing in an academic discipline. In this class, you can expect to write regularly during the semester, complete substantial writing projects, and receive feedback from your instructor to help you improve your writing. You will also have the opportunity to revise one or more assignments, and to read and discuss your peers' work. You should therefore expect a substantial portion of your grade to come from your written work.

## **Oral Presentations:**

Oral presentations will be a (10-15 min) summary of one research article corresponding to the day's topic. You should choose from the list of articles provided. I strongly encourage you to use powerpoint, overheads and/or other visual aids. Grading will be based on the content and clarity of your presentation as well as your ability to demonstrate depth of knowledge of the covered material. A general guide of what should be included in your presentation will be provided.

## **Article summaries:**

Every week, you will hand in a research article summary. On the day that you give a presentation, you will not be required to hand in an article summary. On the day that you have an exam, you will not be asked to hand in an article summary. A general guide of what should be included in your article summary will be provided.

## **News and views article:**

This assignment will require you to write an article for a non-specialist audience about a new scientific advance (a recently published article of interest). You will select your own article (to be approved by the professor) from a number of topics pertinent to the class. You will hand in 2 versions of this article. Your first version will be reviewed by 2 students in the class (and likewise, you will provide written feedback to 2 students). All assignments will be blindly reviewed. Once you receive feedback, you will revise your article and address the reviewers' comments. The reviewers will not assign you a grade. The professor will assign the grade based on (1) the initial submission, (2) the final submission, and (3) your response to the reviewers' comments.

**NOTE:** Hard copies of the assignments (article summaries and news and news articles) are to be handed in at the beginning of class on the due date. Assignments may not be emailed. Late assignments will NOT be accepted.

## **Exams:**

You will have 2 exams (a midterm and a final) that will consist of multiple choice, fill in the blanks, and short answer and essay questions. You will be responsible for the material covered in the class lectures, your classmates' presentations, as well as the assigned articles. The midterm will include questions drawn from material discussed up until that exam, and the final will focus on what will be covered the rest of the semester. Both exams will be open-book, meaning that you will be allowed to use the articles covered in class, and your class notes. Electronic devices, and communication with your classmates will be prohibited during exams. Make-up exams will not be permitted, unless a valid and documented reason is provided. You are welcome, within reason, to dispute the grading on exams by providing written justifications to the instructor.

**Class schedule:**

Date	Topic	Readings
Jan 18, 20	Introduction to course	
Jan 25	Psychology and Neuroscience of Learning and Memory	
Jan 27	Episodic and Semantic Memory	assigned articles
Feb 3	Skill Memory	assigned articles
Feb 10	Working Memory and Exec. Control	assigned articles
Feb 17	Non-Associative Learning	assigned articles
Feb 24	Classical Conditioning	assigned articles
Mar 3	Instrumental Conditioning	assigned articles
<b>Mar 10</b>	<b>MIDTERM EXAM</b>	
----- <b>Spring Break</b> -----		
Mar 24	Memory across the lifespan	assigned articles
Mar 31	Emotional Learning and Memory	assigned articles
Apr 7	Emotional Learning and Memory	assigned articles
Apr 14	Learning by observation	assigned articles
Apr 21	Language Learning	assigned articles
Apr 28	Sleep, learning, and memory	no assigned articles
May 3	Synthesis and Review	No required readings
<b>May 5</b>	<b>FINAL EXAM</b>	

**Due dates for articles summaries and class presentations:**

Feb 1	Episodic and Semantic Memory
Feb 8	Skill Memory
Feb 15	Working Memory and Exec. Control
Feb 22	Non-Associative Learning
Mar 1	Classical Conditioning
Mar 8	Instrumental Conditioning

-----**Spring Break**-----

Mar 29	Memory across the lifespan
Apr 5	Emotional Learning and Memory <b>*News and views first draft due</b>
Apr 12	Emotional Learning and Memory
Apr 19	Observational Learning <b>*News and Views corrected draft due</b>
Apr 26	Language Learning
May 3	<b>*News and Views final draft due</b>

## **Computation of grades:**

Your final grade will be determined by adding the scores from the research articles summaries, oral presentation, and exams. The total score will be rounded to the nearest decimal, e.g., 89.5% = 90%, 89.4% = 89%. Letter grade cutoffs are as follows: 91.5-100=A, 89.5-91.4= A-, 87.5-89.4=B+, 81.5-87.4=B, 79.5-81.4=B-, 77.5-79.4=C+, 71.5-77.4=C, 69.5-71.4=C-, 67.5-69.4=D+, 61.5-67.4=D, 60-61.4=D-, Less than 60 =F.

**NOTE:** No exceptions will be made to the above rubric. You are welcome, within reason, to dispute the grades you receive on an assignment by providing a written justification to the instructor within 2 weeks of receiving the graded assignment.

## **Pre-requisite information:**

The Psychology Department will drop all students who do not meet the following prerequisites:

- (a) PSY 301 with a C or better
- (b) PSY 418 (or an equivalent listed in the course schedule) with a C or better
- (c) Upper-Division standing (60 hours completed)

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## **Rules and regulations**

You are responsible for any announcements that are made in class. Official class business will be conducted during lecture and lab. If you miss a lecture or lab, you are responsible for determining what you missed.

## **Electronics Policy**

Please turn off your cell phones and other electronic devices during lecture and during labs. Use of the lab computers for personal activities (emails, non-class related searching, use of non-psychology websites, among other related activities) should not take place during lecture and lab sessions. If you are expecting an emergency call during class or lecture, please make arrangements with the instructor before class.

## **Writing Center**

I strongly encourage you to visit the Undergraduate Writing Center (UWC), <http://uwc.utexas.edu/home>. The Undergraduate Writing Center offers free, individualized, help with writing for any UT undergraduate. Any undergraduate student enrolled in a course at UT can visit the UWC for assistance with any writing project. The consultants are trained to help you work on your writing in ways that preserve the integrity of your work.

## **Notice on disabilities**

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641 TTY.

**Scholastic dishonesty**

Scholastic dishonesty is a very serious offense, and will result in disciplinary proceedings (and could result in your dismissal from the University). For the University's official definition of scholastic dishonesty, see [Section 11-802, Institutional Rules on Student Services and Activities](#) of the University Catalog.

**Emergency procedures**

Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building.

Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class.

In the event of an evacuation, follow the instruction of faculty or class instructors. Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.