

Learning and Memory (PSY 433)

Winter 2016 -- T/Th 8:30–9:50am -- Straub 145 -- CRN 25299 -- 4 credits

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Textbook

We will use: Gluck, M. A., Mercardo, E., & Myers, C. E. (2013). Learning and Memory: From Brain to Behavior (2nd ed). NY: Worth Publishers.

Course Description

This course will cover a range of research topics related to learning and memory. You will develop a clear understanding about different memory systems, the factors that promote successful remembering and those that contribute to forgetting, how distinct brain regions contribute to memory, and how memories are influenced by factors such as emotion and sleep. You will also learn about various methodological approaches that are used in memory research: from behavioral studies to neuroimaging to studies of neuropsychological patients. In addition to learning about theoretical topics and principles, you will also develop an understanding and appreciation for how memory operates in the 'real world.'

Course Objectives

By the end of this course, you should be able to identify and describe different forms of memory, you should be familiar with the diverse methodologies that are used to study memory, and you should have a working understanding of prominent models, theories, and principles of memory.

Expectations

It is expected that you will regularly come to class and that you will come to class prepared. This means that you should *keep up with the assigned readings* and show up to class prepared to think about and discuss what you have read.

The course is structured in a way that is intended to help you learn the materials, but you will need to put effort into the class in order to learn and succeed. If you encounter difficulties along the way, PLEASE contact the instructor or teaching assistant as soon as possible. It is much easier to help you succeed when you make us aware of any problems in a timely manner.

Workload

This is a 4-credit course. According to University principles governing credit and contact hours, each credit equals 30 hours of work for the term. Four credits are therefore equivalent to 120 total hours for the term, or 12 hours per week for 10 weeks. You will spend approximately 3 hours in class each week. That means that you should be spending roughly *9 hours per week reading, studying, and completing assignments outside of class*. Your performance in this class will be much higher if you plan accordingly.

Course Components and Requirements

Attendance. Regular attendance is an essential component of this course. Lectures will be related to assigned readings, but exams and quizzes will be directly based on lecture materials. Moreover, the discussions, questions, and anecdotes that are part of the classroom experience will greatly enrich and facilitate your learning. Simply put, you will perform better in this class if you attend lectures.

Readings. You will regularly be assigned chapters to read from the textbook and, in some cases, journal articles. These readings should be done *before class*. That is, if the schedule lists a particular reading for a particular class date, you should do that reading before the class on that date. Completing readings before lectures will make it much easier for you to follow the lectures and will substantially improve your memory for the material.

Discussion Questions. You will be assigned five Discussion Questions over the course of the term. When Discussion Questions are due (as indicated on the Course Schedule, below), you should generate a brief question, thought, or comment based on the reading assigned for that date. **These questions must be submitted on the Canvas discussion forum by 7am on the day they are due (i.e., at least an hour and a half before class begins).** There are no make-ups for missed discussion question submissions.

Critique Paper. You will be required to write a paper of 4-5 pages in length (1 inch margins, doubled spaced, 11-12 pt font) that critically reviews, evaluates, and discusses an empirical journal article. The instructor will provide a set of 4-6 papers from which you will select one paper to review. Your paper should give a general overview of the findings and conclusions as well as a commentary regarding the significance or limitations of the study. You should include some discussion of what other questions you would be interested in addressing in follow-up studies. A detailed overview of this assignment will be provided later.

Quizzes. A total of 6 ‘pop quizzes’ will be administered over the course of the term. These are surprise quizzes that will occur at the beginning of class. Each quiz will only take a few minutes and will consist of a handful of multiple choice questions related to the readings assigned for that day. **The surprise quizzes are intended to motivate your to do the readings and to show up to class!** Of the 6 quizzes, your two lowest scores will be dropped. Because two of the quiz scores will be dropped, there is no make-up policy for quizzes. If you miss class or show up late, your score for that quiz will be a 0.

Exams. There will be two exams in this course: a midterm and a final exam. The final exam will be cumulative, but biased toward material covered in the second half of the term. The exams will include multiple choice, true/false, and short answer questions.

Grading

Your grade in this course will be determined as follows:

Discussion questions: 5%	Midterm: 25%
Quizzes: 20%	Final Exam: 30%
Paper: 20%	TOTAL: 100%

The grading scale will be: 90-100=A, 80-89=B, 70-79=C, 60-69=D, 59 or lower=F. However, I reserve the right to adjust the grades *up* depending on the distribution of scores (i.e., to curve). Grades will never be adjusted downward. Those taking the class Pass/Fail must obtain a “C” to pass. Whether grades are rounded up (e.g., whether an 89.5% counts as 90%) will depend on the distribution of scores. If you want to guarantee a score in the A range, you should plan to achieve a score of 90.00% or higher! Likewise for a B or C grade.

Please be warned in advance that if you fall just below a grade cutoff, I *will not bump you up*. This policy is in place in order to maintain fairness for all students. Appealing to me for a ‘favor’ is not going to change this policy. The best way to avoid just missing out on a desired grade is to put in the necessary work so that your grade is comfortably above the cutoff.

Academic integrity

I assume that all students have read the Honor Code and are bound by it. Violations of the Honor Code are taken extremely seriously and will result in referral to the Dean of Students for further action. Specific violations include (but are not limited to):

- Using or providing prohibited assistance during exams
- Plagiarism. This includes improper use of words and ideas.

All exams in this course are **closed-book**. You are not permitted to use any materials during the exams. Books, notes, computers, cell phones, headphones, etc., should be closed and put away. I will assume that all students enrolled in the course know and understand what constitutes academic misconduct and agree to be bound by these rules.

Courtesy

Out of courtesy for other students and out of respect for the class, I request the following: (1) Please turn off your cell phone during class. This also includes disabling phone alerts (beeps, buzzes, etc.). (2) Note taking by computer is ok, but please make an effort to minimize disruption/noise, which includes refraining from computer use during class that is unrelated to note taking. (3) Please do not chat with others during class. (4) Please be on time. I will start class at the listed time (I do not add 5 minutes to the start time) and I will end class on time.

Course Schedule

**Topics may be rescheduled, but exam and homework due dates will only change in the event of extreme circumstances (e.g., weather-related emergencies).*

Week	Date	Topic	Reading	Assignments
1	T 1/5	Overview of Memory	Syllabus	
	Th 1/7	Experimental Methods	Ch 1 & 2	DQ 1
2	T 1/12	Working Memory 1	Ch 9	
	Th 1/14	Working Memory 2	Baddeley (2003)	
3	T 1/19	Encoding 1	Ch 7	
	Th 1/21	Encoding 2	-----	
4	T 1/26	Retrieval 1	Review Ch 7	
	Th 1/28	Retrieval 2	Rugg & Yonelinas (2003)	
5	T 2/2	Cognitive Control	Levy & Anderson (2002)	DQ 2
	Th 2/4	Midterm	-----	
6	T 2/9	Forgetting	Review Levy & Anderson	
	Th 2/11	False Memories	Schacter (1999)	DQ 3
7	T 2/16	Semantic Memory	Review Ch 7	
	Th 2/18	Skill learning	Ch 8	
8	T 2/23	Priming	Ch 3; Schacter & Buckner (1998)	
	Th 2/25	Conditioning	Ch 4, 5, & 6	
9	T 3/1	Emotion and Memory	Ch 10	DQ 4
	Th 3/3	Social Learning	Ch 11	
10	T 3/8	Development & Aging	Ch 12	DQ 5
	Th 3/10	Sleep and Memory	Stickgold (2005)	Critique paper due
11	8:00am Monday March 14			Cumulative Final Exam