

# Memory Processes

Psyc 238 & 239, Winter 2018

**Lecture:** Olin 102, MW 12:30 pm - 1:40pm, F 1:10 pm - 2:10 pm

**Lab:** Olin 11, Tuesday or Thursday 2:00 pm - 5:00 pm

## Contact Information

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Office Hours: Monday 1:45 pm - 2:45 pm, Thursday 10:00 am - 11:00 am, or by appointment

## Course Description

Memory is involved in nearly every human activity: We use our memory not only when we reminisce about the past, but when we study for exams, talk to friends, and tie our shoes. This course explores the psychological science of human memory. We will examine different types of memory, how we encode new memories and retrieve old ones, how to ensure a memory is never forgotten, and how to implant a false memory in someone else. In doing so we will look at both old and new research, and discuss how memory research can be applied to real world environments, such as courtrooms and classrooms. By the end of the course you will be familiar with the major issues in the field of memory research, be able to evaluate the quality of the studies used as evidence in these debates, and be able to conduct experimental research of your own. Enrollment in the lab section is not required (although it is encouraged). Although you will receive two separate grades for each component, the two will be closely integrated.

## Course Website

This syllabus and other important course materials including readings, topic schedule, and assignment details are available on Moodle. Lecture slides and other materials will be posted on Moodle after the lecture in which they are presented. There is one Moodle page for the lecture and one Moodle page for the lab.

## Textbook & Readings

The textbook for the class is *Human Memory* (3rd Edition) by Gabriel Radvansky, and is available at the bookstore or online. Additional assigned readings will be posted as PDFs on Moodle. You should do the readings *before* each class; we won't always cover everything in the textbook in class (and likewise the textbook won't cover everything from class), but the readings provide critical background for the lectures and labs.

## Classroom Etiquette

To ensure an optimal learning environment, it is important to treat each other with mutual respect and honesty. I will work diligently to prepare for class, to respect everyone's contributions, to grade work in a fair and unbiased manner, and to hand back work in a timely fashion. In return, I expect that you will treat your classmates and me with respect. This includes showing up on time, turning off or silencing cell phones, and listening carefully to other people's ideas. Be respectful of the diverse opinions and values of your classmates. If you choose to bring your laptop to class, please only use it for course related activities – research suggests that surfing the web, checking email etc. can be detrimental for you *and* for the students around you.

## Help With Class

My office hours are listed at the top of the syllabus – please stop by and visit! You can also contact me via email if you want to set up another time to chat outside of office hours. I'm happy to talk about any specific questions or concerns that you have with class, or to just talk about psychology and memory research. The lab assistant, Morgan Ross (rossm2@carleton.edu), is available to help with lab activities.

### *Special Accommodations and Student Educational Services*

The Writing Center, located in 420 4th floor Library, has peer writing consultants who can work with you during any stage of the writing process (brainstorming to final proofreading). Hours and more information can be found on the [writing center website](#).

Carleton College is committed to providing reasonable accommodations to students with disabilities. Students seeking accommodations should contact the Office of Disability Services, to begin the process. Carleton faculty are strongly encouraged to wait for official notification of accommodations before modifying course requirements for students.

### *Academic Honesty*

Carleton's Academic Standing Committee wants you to remember the following: "All assignments, quizzes, and exams must be done on your own. Note that academic dishonesty includes not only cheating, fabrication, and plagiarism, but also includes helping other students commit acts of academic dishonesty by allowing them to obtain copies of your work. You are allowed to use the Web for reference purposes, but you may not copy material from any website or any other source without proper citations. In short, all submitted work must be your own. Cases of academic dishonesty will be dealt with strictly. Each such case will be referred to the Academic Standing Committee via the Associate Dean of Students or the Associate Dean of the College. A formal finding of responsibility can result in disciplinary sanctions ranging from a censure and a warning to permanent dismissal in the case of repeated and serious offenses. The academic penalty for a finding of responsibility can range from a grade of zero in the specific assignment to a F in this course."

## **The Class (Psyc 238)**

Memory Processes has both a lecture and lab. The class meetings (during 4A) will be a combination of lecture, discussion, and in-class activities. Details on the evaluation for the class are as follows:

### **Participation 10%**

During class, you will be asked to contribute to discussion, answer (and ask!) questions, participate in mini-experiments, and complete other activities. Students who receive the highest grades for participation are present and engaged during class, contribute to group discussions, ask questions, and show clear verbal and written evidence of having read, prepared, and thought deeply about the material. Unexcused absences will hurt your participation grade (plus you'll miss out on the fun things we do!).

### **Daily Retrieval Practice Quizzes 20%**

Research has shown that spacing (studying over a period of time, rather than cramming the night before an exam) and practice testing are two of the most effective ways to learn something. In an effort to encourage both spacing and practice testing there will be a short quiz (4-5 questions) posted on Moodle after each class. The questions will be multiple-choice, true/false, and short answer, and will cover material from the reading and that day's class. The quiz will be available for you to take from right after class until 11:59 pm that night. There will be 22 quizzes over the term. There are no make up quizzes—if you miss a quiz your score will be zero. However, you will be able to drop your 2 lowest scores (so only your best 20 quizzes will count towards your grade). We will have an additional practice quiz on the first day of class that won't count towards your grade.

### **Three Exams (two mid-terms and one final) 20% Each**

There will be three in-class exams over the course of the term. The third exam will be self-scheduled during finals period. The dates are listed in the schedule below. The exams are a combination of short-answer and essay questions. All of the exams are cumulative to some degree (we build on ideas from earlier in the course throughout the term), but the emphasis will be on material that was covered since the previous exam. Any special accommodations or requests for testing at an alternative time must be submitted to the instructor prior to the exam via email.

### **Memory in the Movies Essay 10%**

There is one essay associated with the lecture. You'll watch a popular film (*The Bourne Identity*, *Memento*, or *Finding Nemo*) and provide a thoughtful analysis of how memory is portrayed in the film. Given what we've learned about memory processes, what did the filmmakers get right and what did they get wrong (or fudge with artistic license?). The essay is due on February 9 and should be around 4 pages. More details will be provided in class.

## The Lab (Psyc 239)

The lab meetings (on Tuesday or Thursday afternoons) complement the lectures. You'll get hands on experience with memory research (and cognitive psychology research more generally) which includes evaluating research, designing and conducting studies, and sharing your findings in a clear and persuasive manner. There are a lot of components described below, but most of them will be completed during lab time.

### **Preparation and Participation 20%**

Most of the lab days will require completing a worksheet that will be done in pairs or small groups. These will involve answering questions about the experiments we conduct in class and the data we collect. Sometimes you'll have a set of problems to answer, or you'll be asked to create a graph based on data. The participation component requires coming to lab prepared, working on all of the activities, and being active and engaged during the lab time.

### **Lab Reports 20%**

There will be three short lab-reports due early in the semester that you will co-write with a partner (see calendar below). The purpose of these assignments is to give you practice writing the different components of an APA-style report. As with many things in life, practice helps a lot. You will get more information about the lab reports in class.

Lab Report 1: Method Section	5%
Lab Report 2: Results Section	5%
Lab Report 3: Testing Effect Report	10%

### **Research Project 60%**

In a small group you will conduct an original memory study related to one of the concepts that we have explored in class. This will involve reading the relevant literature, designing the methods, creating a computer program to collect data, analyzing the data, presenting the findings to the class, and writing an APA-style lab report. You will get more information later about the expectations and assignments involved. One cool aspect of this project is collecting data from real people over the internet. Although you will conduct the project in groups and create a poster together, the final written report will be done individually. The research project breaks down as follows:

Annotated Bibliography (individual)	5%
IRB/Project Proposal (group)	5%
Poster Presentation (group)	15%
Team Participation (individual)	10%
Final Lab Report (individual)	25%

### **Attendance:**

The lab only has 9 meetings so it is critical to attend all of them. If you must miss a lab due to a family emergency or illness, you must supply a note from a dean or doctor. If you miss a lab that includes data collection, it will be your responsibility to get data from a class member so you can complete the necessary write up or assignment. Unexcused absences will result in a reduction in your participation grade.

## Course Calendar (see Moodle for details)

WK	Day	Date	Class Topic	Assignments Due
1	W	1/3	Introduction	<i>All assignments due at the start of next week's lab unless otherwise noted.</i>
	F	1/5	Methods & Approaches	
	LAB		No Lab This Week	
2	M	1/8	Sensory Memory and Short Term Memory	Lab Report 1: Methods
	W	1/10	Working Memory	
	F	1/12	Long Term Memory 1: LOP & ESP	
	LAB		Measuring Memory	
3	M	1/15	Long Term Memory 2: Testing Effects	Lab Report 2: Results
	W	1/17	Forgetting and Interference	
	F	1/19	Recognition Memory	
	LAB		Levels of Processing Lab	
4	M	1/22	<b>Exam 1</b>	Lab Report 3: Testing Effect Report
	W	1/24	Amnesia	
	F	1/26	Neuropsychology and Memory	
	LAB		Testing Effect & Library Research Lab	
5	M	1/29	Implicit Memory	Annotated Bibliography
	W	1/31	Semantic Memory	
	F	2/2	Metacognition	
	LAB		Group Project Ideas	
6	M	2/5	<b>Mid-term break.</b> No Class Today	Class Paper on Memory in the Movies due 2/9 at start of class.
	W	2/7	Metamemory	
	F	2/9	Highly Superior Autobiographical Memory	IRB due Friday 2/22, by 5:00 pm (one per group)
	LAB		Plan Group Research Projects	
7	M	2/12	<b>Exam 2</b>	Experiment Program (one per group)
	W	2/14	Emotion and Memory	
	F	2/16	Reconstructive Memory	
	LAB		Experiment Building Day	
8	M	2/19	Memory and the Law	
	W	2/21	Collective Memory	
	F	2/23	Educational Applications	
	LAB		Data Collection and Writing	

9	M	2/26	Autobiographical Memory	Data Collection Finished
	W	2/28	Aging and Development	Posters Due Friday, 3/2 by 5:00 pm (one per group)
	F	3/2	Topic TBD	
	LAB		Data Visualization, Poster Design and Writing	
10	M	3/5	Mnemonics & Memory Athletes	Draft of Final Lab Report due Monday 3/5 at 5 pm.
	W	3/7	Tentative Conclusions about Memory	
	F	3/9	Memory Research Symposium	
	LAB		Peer Review of Lab Reports	
<p><b>Exam 3</b>, Self Scheduled, during final exam period (March 12-14)  <b>Final Lab Report:</b> due Wednesday March 14 at 5:00 pm (end of finals period)</p>				