PSYC S107/NSCI S143: Human Memory
Summer 2020
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Class Time: 9-11:15AM M/W/F  Office Hours: by appointment

COURSE INFORMATION
In this course we study how the human mind remembers, and why it forgets, from a cognitive neuroscience perspective. Topics include our ability to remember specific details of experienced events, how we construct our general knowledge about the world, and how we maintain thoughts in the face of distraction.

This syllabus provides you with a ready reference point throughout the summer session. Please read it in full and look here first when seeking information about the course. This document includes course policies, all major assignments and deadlines, and the reading schedule for the weeks ahead.

REQUIRED TEXTS AND MATERIALS
Textbook
This book is available at the Yale bookstore and elsewhere.
Price at Yale University Barnes and Noble: $45.55 – $96.95

Articles
Other readings will be made available on our course’s Canvas site.

COURSE POLICIES
The classroom
In addition to using class time to lecture about human memory, we will use our class meetings as opportunities for you to work through questions and problems together with your classmates. Such a class structure requires that you log on to class ready to participate. Because much of our classroom time will be devoted to working actively and collaboratively, the quality of your involvement will directly influence how much learning is able to happen—both for you as an individual and for the class as a whole. If the requirement of frequent classroom participation seems burdensome for reasons related to your temperament, please reach out.

Although we will all be using our devices to log on to class, I request you put your phones and laptops on “Do Not Disturb” mode so as to avoid distractions during our limited time together.

E-mail
If any questions or concerns arise outside of class, the best way to reach me is via email. If you haven’t heard from me within 24 hours, please send a follow-up email to make sure the first was received.

Office Hours
I’m happy to meet with you via zoom to discuss the readings, assignments, any issues pertaining to this course, or memory/neuroscience research more broadly. Just send me an email with a zoom link along with a list of times when you would be available to meet in the next few days, and I will respond with a time that works for me.

**Final Grades**

Your final grade will be based on the following:

- 30% Exam #1
- 30% Exam #2
- 30% Daily writing assignments
- 10% Course citizenship (e.g., class participation)

**Midterm and final exams**

Anything covered in lectures and in the readings is fair game for the midterm and final exams. Note that some of the material on the exams will only be covered in lectures (not in the readings), and some only in the reading and not in the lectures. Both exams are closed-book. Use of any written materials (including your notes, the textbook) or any form of collaboration is forbidden.

**Daily writing assignment**

Before every class you will complete a short writing assignment on a topic related to that day’s material. The purpose of these essays is to get you to think more deeply about the concepts that are covered in lectures, and to prepare for class discussion. Essays should not be longer than 1 page.

*All assignments must be uploaded to Canvas in .doc or .pdf format by 8pm on the due date, unless otherwise noted.

Assignments uploaded after the due date but before the next class period will get a 25% lateness penalty (i.e., your score will be multiplied by .75). Assignments uploaded after the next class period will get a 50% lateness penalty. Improperly formatting will result in an additional 10% penalty.

**Extensions and Late Assignments**

Because of the fast pace of summer courses, all deadlines in this course are firm. In the event of an emergency, reach out to me as soon as possible. If for some reason you are unable to complete an assignment on time, there will be a late penalty as follows: 1 day late, 25% penalty; 2 days late, 50% late penalty. See above for how this applies to the daily assignments. For exams, there are no make-ups except under exceptional circumstances.

**Plagiarism**

The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Plagiarism is the use of someone else’s work, words, or ideas as if they were your own. Here are three reasons not to do it:

- By far the deepest consequence to plagiarizing is the detriment to your intellectual and moral development: you won’t learn anything, and your ethics will be corrupted.
• Giving credit where it's due but adding your own reflection will get you higher grades than putting your name on someone else's work. In an academic context, it counts more to show your ideas in conversation than to try to present them as *sui generis*.

• Finally, Yale punishes academic dishonesty severely. The most common penalty is suspension from the university, but students caught plagiarizing are also subject to lowered or failing grades as well as the possibility of expulsion. Please be sure to review [Yale’s Academic Integrity Policy](#).

You can find a fuller discussion of using sources and avoiding plagiarism on the [Writing Center Website](#).

Bottom line: if an idea that you wish to include in your essay comes from another source (i.e., you did not come up with it on your own), just cite that source. If in doubt, you should err on the side of caution and cite the source. Also, you should always feel free to consult with Professor Córdova when you are unsure how to (or whether to) give credit to a particular source.

**Collaboration policy**

Discussing the essays with other students in the class is allowed (encouraged, even). However, it is essential that you write up your essay on your own. If the assignment calls for you to generate examples or otherwise demands creativity on your part (e.g., it asks you to come up with examples from your own experience for some phenomenon), the examples that you include in your essay should be examples that you came up with on your own. If you do discuss the essay topic with other students, you should list (at the start of your answer) the names of all of the students with which you discussed the question. This process of listing names protects you from ethics problems, in the following sense: If students X and Y state outright that they worked together on a question, and I think that their answers are too similar, I do not consider this an ethics violation; rather, I will just tell X and Y that they should try harder to come up with different responses (and maybe deduct a few points). However, if X and Y hand in very similar, idiosyncratic answers, and they do not list each other as having worked together, this constitutes an ethics violation because they are representing their work to be entirely their own, when in fact it is not.
Tentative class schedule

Please note that the readings below are subject to change.

**Week 1: Remembering what we ate for breakfast**

*Mon July 1*
- Reading Assignment:
  - Chapter 1 (skip sensory memory section on pp. 10–12)
- In-class: **Introduction to the course; Introduction to your brain**

*Wed July 3*
- Reading Assignment:
  - Chapter 2
  - Chapter 16 (section on pp. 448–456 about TBI and Alzheimer’s can be skipped)
  - Chapter 5 (pp. 121–125)
- In-class: **The medial temporal lobes and amnesia**

*Fri July 5*
- Reading Assignment:
  - Schacter, Addis, and Buckner (2007), “Remembering the past to imagine the future: the prospective brain” in *Nature Reviews Neuroscience*
- In-class: **The medial temporal lobes in humans and other animals**

**Week 2: Keeping information in mind**

*Mon July 8*
- Reading Assignment:
  - Chapter 3
- In-class: **Complementary learning systems in the brain**

*Wed July 10*
- Reading Assignment:
  - Chapter 4
- In-class: **Remembering in the short term**

*Fri July 12*
- Reading Assignment: N/A
- In-class: **EXAM #1; Mechanisms of working memory**

**Week 3: About all the things we know (and forget!)**

*Mon July 15*
- Reading Assignment:
  - Chapter 7
- In-class: **Interactions between memory systems**

*Wed July 17*
- Reading Assignment:
• Chapter 6
• Chapter 9 (pp. 231–248)

• In-class: **Mechanisms of remembering and forgetting**

**Fri July 19**

• Reading Assignment:
  o Chapter 7 (pp. 182–188) & chapter 11 (pp. 312–313)
• In-class: **Mechanisms of memory distortion**

**Week 4: Memories in context**

**Mon July 22**

• Reading Assignment:
  o Chapter 9 (pp. 248–259)
  o Kuhl et al. (2007)
  o Karpicke and Roediger (2008), “The critical importance of retrieval for learning” in *Science*
• In-class: **Retrieval-induced forgetting and competition-dependent learning**

**Wed July 24**

• Reading Assignment:
  o Chapter 8 (pp. 195–217)
• In-class: **Memories in context**

**Fri July 26**

• Reading Assignment:
  o Chapter 5 (pp. 127 – 129)
  o Stickgold and Walker (2013)
• In-class: **Sleep and memory**

**Week 5: Memory across the lifetime**

**Mon July 29**

• Reading Assignment:
  o Chapter 14
  o Chapter 15
• In-class: **Memory in infants and older adults**

**Wed July 31**

• Reading Assignment:
  o Chapter 12
• In-class: **Emotional memory**

**Fri Aug 2**

• In-class: **Exam #2**