

Attention!

This is a *representative* syllabus.

The syllabus for the course when you enroll may be *different*.

Use the syllabus provided by *your* instructor for the most up-to-date information. Please refer to your instructor for more information for the specific requirements for a given semester.

Feel free to contact the Psychology Advising Office for any questions regarding psychology courses either by email (psychadvising@osu.edu) or phone (614.292.5750).

Thank you!

Psych 3312: Memory and Cognition

Syllabus for Autumn 2021

(Subject to Change)

Course: Psych 3312 (class # 23634)

Prerequisites: 1100 (100) or 1100H (100H). Not open to students with credit for 312

Dates: Aug 24 – Dec 8, 2021

1. COURSE OVERVIEW

This course surveys selected topics in modern cognitive psychology with an emphasis on memory, learning, categorization, reasoning, knowledge representation, judgment & decision making, and problem solving. It is intended for undergraduate students with basic knowledge of psychology (prerequisite Psych 1100). Some questions we will consider are: What is cognitive psychology and how does it fit into the broader framework of cognitive science? What methods do scientists use to study memory and high-level cognition? What behavioral regularities characterize human and animal memory? What kinds of memory are there? Where does memory reside in the brain? What are some important theories and models of memory? What are their strengths and weaknesses? How does one evaluate a scientific theory? Can memory research help us study and remember better? Are the testimonies of honest eyewitnesses always reliable? How do people classify things into categories? How are concepts represented and organized in semantic memory? Are humans fundamentally rational or irrational? What tools allow us to construct, and to understand, a reasoned argument? What tools allow us to recognize a fallacious or fraudulent argument? What is the distinction between deductive and inductive reasoning? How do people solve problems? What is the role of insight in problem solving? Can the creative process be studied scientifically and, if so, how? How can fluid intelligence and creativity be measured? Can they be improved?

Course Objectives

Upon successful completion of the course the students should be able to:

- Summarize a representative sample of empirical and theoretical results in the scientific study of memory, categorization, and high-level cognition, as illustrated by the questions in the *Course Overview* above.

- Describe the methods that psychologists use to study learning and memory.
- Describe the biological bases of how we remember, think, decide, and create.
- Make connections from psychological research to daily life and public policy. This includes the ability to be a competent consumer of scientific research.
- Demonstrate critical thinking and job skills relevant to a wide variety of careers.

CarmenBooks

- This class participates in the **CarmenBooks** program in which students obtain publisher materials electronically through CarmenCanvas, saving up to 80% per title. Access this **EBook** through the CarmenBooks link available under the tab ‘Modules’.
- The fee for this material is included as part of tuition and is listed as *CarmenBooks fee* on your Statement of Account. Materials provided through CarmenBooks are available immediately on or before the first day of class. There is no need to wait for financial aid or scholarship money to purchase your textbook.
- Unless you choose to opt-out of the program, you do NOT need to purchase any materials for this course at the bookstore. For more information on the program or information on how to opt out, [please visit the CarmenBooks website \(https://affordablelearning.osu.edu/carmenbooks/students\)](https://affordablelearning.osu.edu/carmenbooks/students).

ZAPS Cognition Labs

- Students will need online access to *ZAPS Cognition Labs*, W. W. Norton’s chapter-reviewular online psychology labs. ZAPS is included in the **EBook** through CarmenBooks, and also comes packaged with a purchase of the textbook. If you are using a previous edition of the text, you may need to purchase an access separately.

Lectures & Chapter-review Quizzes

- You are expected to attend all lectures delivered at the scheduled class times, i.e., T & R at 8:00 – 9:20 am.
- While the lectures do not cover every section of the book, you are supposed to read and study ALL sections of each chapter discussed in class in order to prepare yourself for the exams and chapter-review quizzes.
- **Some of the lectures will conclude with chapter-review quizzes given on unannounced dates throughout the semester.**

2.

EVALUATION

Your final course grade will be based on the following components:

• Five online chapter-review quizzes (5 out of 7 total, 20 points each)	100
• Five online ZAPS on-line exercises (5 out of 6 total, 20 points each)	100
• Five response papers (5 out of 6 total, 20 points each)	100
• Midterm exam (Tuesday, 10/12, 8:00 – 9:20 am)	100
• Final exam (Tuesday 12/7, 8:00 – 9:20 am)	100
	<u>Total: 500</u>

Final course grades are based on the following cutoffs: A: 465 - 500; A-: 450 – 464.99; B+/B/B-: 400 – 449.99; C+/C/C-: 350 – 399.99; D+/D: 300 – 349.99; E: 0 - 299.99.

Chapter-review Quizzes

- Seven chapter-review quizzes conducted on-line on Carmen will be given toward the end of class on unannounced dates throughout the semester.
- Each chapter-review quiz is worth 20 points, consists of 20 multiple-choice questions, and is closed-book & closed-note.
- Only the FIVE best scores of the seven quizzes will count toward your final grade, i.e., up to a total of 100 points max. Or alternatively, you may choose to do just five quizzes.
- **Please note that to take each quiz, you will need to be able to access Carmen at a moment's notice.**
- Finally, missed quizzes cannot be made up; no excuses of any sort will be accepted.

ZAPS (Cognition Labs) On-line Exercises

- This is a collection of on-line internet-based exercises in which you will gain hands-on experience of research in action by participating in various psychological experiments, to help deepen your understanding of the topics and concepts discussed in class.
- A total of six ZAPS exercises, each worth 20 points, will be posted on Carmen throughout the semester.
- **Importantly, the ZAPS exercises must be accessed and completed through CarmenCanvas**
- Once posted, you have seven days to complete each ZAPS exercise.
- You are given just one attempt to do each ZAPS exercise, which takes about 20 mins to complete from start to finish.
- Only the FIVE best scores of the six ZAPS exercises will count toward your final grade, i.e., up to a total of 100 points max. Or alternatively, you may choose to do just five ZAPS exercises.
- Finally, missed ZAPS exercises cannot be made up; no excuses of any sort will be accepted.

Response Papers

- These papers are your opportunity to relate and apply the concepts and theories in the course to the concerns and issues that arise in everyday life.
- Specifically, you write each response paper of min 300 to max 450 words in which you provide well thought-through answers in response to some critical questions after reading a short essay. These end-of-chapter essays under the themes 'Cognitive Psychology and the Law' posted on CarmenCanvas (also available in the EBook).
- **While you may discuss your thoughts & ideas about this assignment with other students, your papers must be your own original work written in your own words. TURNITIN will be used on all response papers.**
- Regarding the TURNITIN
 - TURNITIN is a plagiarism detecting and prevention tool.
 - TURNITIN is pre-installed in Carmen and is routinely used by instructors at OSU.
 - TURNITIN checks your paper for inappropriate copying by comparing the paper to text and content in its massive databases.
 - TURNITIN generates a similarity score ranging 0% to 100%.
 - In general, a similarity score of 25% or higher may indicate possible plagiarism.
 - For your response papers for this class, you should try to have the similarity score of **24%** or lower, preferably below 10%.

- For papers with similarity scores greater 24%, some points may be taken out when grading your paper and/or forward the instance to COAM.
- Finally, here is an OSU website on TURNITIN you might find useful:
<https://teaching.resources.osu.edu/toolsets/carmencanvas/guides/turnitin>.
- Once posted, you have seven days to write and submit your response paper through Carmen. No late papers will be accepted.
- The paper will be graded based on the following components:
 - 20%: General understanding of the issues discussed in the essay
 - 60%: Relevance and thoughtfulness of your responses
 - 20%: Quality and clarity of writing
- This is not a writing course, and as such, paper comments are not provided.
- There will be a total of six response papers to write, each worth 20 points, posted throughout the semester.
- Only the FIVE best scores of the six papers will count toward your final grade, i.e., up to a total of 100 points max. Or alternatively, you may choose to write just five response papers.
- Finally, missed response papers cannot be made up; no excuses of any sort will be accepted.

Exams

- The midterm exam (Tuesday, 10/12) and the final exam (Tuesday, 12/7) are closed-book & closed-note.
- Each exam consists of 50-60 T-F/multiple-choice questions.
- The exams are not cumulative, except that the topics covered in later periods of the course depend on concepts and facts introduced in the earlier periods.
- No make-up exams will be given, except in the case of documented illness or personal/family emergency. In the event of a last-minute emergency, you should send an email message to Dr. Myung on the same day as the exam, preferably before the exam begins. Acceptable excuses for missing an exam are a death in your family, personal illness, or the illness of your child or spouse, and unforeseen accidents like your car breaking down or getting stuck in an elevator. Please obtain documented proof of these events should they occur.
- Make-up exams will be administered orally by instructor. Also note that your make-up oral exam questions will not be the same as the ones on the online Carmen exam given to other students.
- Finally, please note that the final exam is scheduled for the last day of class (i.e., Dec 7th), not during the University's finals week (Dec 10-16).

3.

COURSE SCHEDULE

(Subject to change)

1. T & R 8/24 & 8/26 – Course Overview & Organization; The Science of the Mind (Chap. 1).
2. T & R 8/31 & 9/2 – The Neural Basis for Cognition (Chap. 2).
3. T, R & T 9/7, 9/9 & 9/14 – Recognizing Objects (Chap. 4). Reading: McClelland & Rumelhart (1981).
4. R & T 9/16 & 9/21 – Neural Network Models of Cognition (Chap. 4). Readings: McClelland et al (1986); McClelland (1988).
5. R, T & R 9/23, 9/28 & 9/30 – Memory Acquisition and Working Memory (Chap. 6)
6. T & R 10/5 & 10/7 – Interconnections between Acquisitions and Retrieval (Chap. 7)
7. **T 10/12 Midterm Exam (8:00 – 9:20 am)**
8. T & R 10/19 & 10/21 – Remembering Complex Events (Chap 8)
9. T & R 10/26 & 10/28– Autobiographical Memory (Chap. 8)
10. T & R 11/2 & 11/4 – Concepts & Knowledge Representations (Chap. 9)
11. T 11/9 – Categorization & Similarity (Chap. 9)
12. T & R 11/16 & 11/18 – Judgment & Reasoning (Chap. 12)
13. T 11/23 – Decision Making (Chap. 12)
14. T & R 11/30 & 12/2 – Problem Solving & Intelligence (Chap. 13)
15. **T 12/7 - Final Exam (8:00 – 9:20 am)**

The above course schedule is subject to change at the discretion of the instructor, depending on the rate of progress through the material, student interest in alternative topics, and/or scheduling constraints.

4. ADDITIONAL READINGS

McClelland, J. L., & Rumelhart, D. E. (1981). An interactive activation model of context effects in letter perception: Part 1. An account of basic findings. *Psychological Review*, 88(5), 375-407.

McClelland, J. L., Rumelhart, D. E. & Hinton, G.E. (1986). The appeal of parallel distributed processing. In D. E. Rumelhart, J. L. McClelland & The PDP Research Group, *Parallel Distributed Processing: Exploration in the Microstructure of Cognition, Vol.1: Foundations*, pp. 3-44. MIT Press.

McClelland, J. L. (1988). Connectionist models and psychological evidence. *Journal of Memory and Language*, 27, 107-123.

HEALTH AND SAFETY REQUIREMENTS

All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<https://safeandhealthy.osu.edu>), which includes wearing a face mask in any indoor space and maintaining a safe physical distance at all times. Non-compliance will result in a warning first, and disciplinary actions will be taken for repeated offense.

OHIO STATE’S ACADEMIC INTEGRITY POLICY

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university’s *Code of Student Conduct* (studentconduct.osu.edu), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university’s *Code of Student Conduct* and this syllabus may constitute “Academic Misconduct.”

The Ohio State University’s *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: “Any activity that tends to compromise the academic integrity of the university or subvert the educational process.” Examples of academic misconduct include plagiarism, unauthorized collaboration on a graded assignment, copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university’s *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

It is the responsibility of the Committee on Academic Misconduct (COAM) to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct at <http://studentconduct.osu.edu>.

SEXUAL MISCONDUCT/RELATIONSHIP VIOLENCE

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu.

DISABILITY SERVICES

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's [request process](#), managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.