

# PSYC 242: COGNITIVE PSYCHOLOGY

**Instructor: Dr. Ariel N. James**

*she/her/hers*

**Email:** [ajames2@macalester.edu](mailto:ajames2@macalester.edu)

**Office drop-in hours:**

Mon. & Wed. 2:30 -3:30 pm | and by  
appt. via <https://calendly.com/ajames2>

**Macalester College | Fall 2022**

**Lecture:** MWF 8:30 - 9:30 am in  
OLRI 352

**Lab:** Tuesday 9:40 - 11:10 am in  
OLRI 349

## In this course...

...we will think about thinking, read about reading, learn about learning, and so much more!

**Cognitive psychology is the study of how we mentally represent and process information**, all the way from attention and perception to communication and problem solving. In this class, our readings, activities, and assignments are designed to help us investigate these questions through the lens of psychological science.

...you will:

- **understand** models of cognition
- practice **reading and discussing** empirical work
- **participate** in in-class experiments
- **collect, visualize, and describe** data
- **use RStudio** for lab reports

# Nuts and bolts of the course

Materials	Grade Composition		
<ul style="list-style-type: none"> <li>• Goldstein’s <i>Cognitive Psychology, 5th ed</i> (ISBN-13: 978-1-285-76388-0)</li> <li>• <b>RStudio software</b> (psst! you already have it via <a href="http://rstudio.macalester.edu">rstudio.macalester.edu</a>)</li> <li>• Other readings, assignments, and R code will be posted to <b>Moodle</b></li> </ul>	Weekly assignments (30%)	Participation	15%
		Class work	15%
	Major assignments (30%)	Lab report 1	10%
		Lab report 2	10%
		Group project	10%
	Exams (30%)	Exams	15%
		Final	15%

The lab is integrated with the rest of the course--I am the instructor for the “lecture” and “lab” portions! Lab activities will include participating in demo experiments and using RStudio to work with data.

**How does the lab work?**

# Assignments

- **Weekly assignments:** The weekly assignments give you the opportunity to reflect on what you're learning, which will help you **remember course content** and **stay on track**. Plus, they give me a chance to check in on how the course is going and adjust accordingly. Weekly assignments include:
  - **Participation:** This includes engagement in in-class activities like:
    - **Quizzes:** These are for *retrieval practice* and graded for completion.
    - **Lab work:** These are lab activities (demo experiments, worksheets, RStudio work) *aside from lab reports*.
  - **Class work:** This includes everything else I have you turn in that isn't a quiz or lab report:
    - **Discussion prep:** Before our Wednesday discussions, I will ask you to submit a brief reflection via Moodle. These will be graded for quality and will be used to guide class discussions.
    - **Mini-assignments:** Sometimes I'll have a task for you to do that isn't meant to take up a lot of time and isn't writing intensive, but I want to make it required. The Psychonomics stuff is a special case of this.
- **Major assignments:** these assignments are designed to give you practice writing the major components of an empirical article: **(#1)** an introduction (literature review, overview of current questions, and predictions) **(#2)** a description of methods, and **(#3)** a results & discussion section. Lab report assignments may ask for two or three of these components, and might take the form of a written paper, a set of slides, or a conference-style poster. Specific prompts and rubrics for these assignments will be posted to Moodle in advance of the deadlines.

## Academic integrity\*

Plagiarism is the presentation of others' thoughts, ideas, or words as your own, and it violates Macalester College's expectation that all members of the community act with academic integrity. If you are unsure about citations, wording, or similarity of structure, please meet with me to discuss these issues. If I have any reason to suspect your integrity in this class, I will contact you. After we meet, I will determine what further steps are appropriate, which may include a score of 0 on the assignment or a referral to the Director of Academic Programs. If you have questions, please contact me or refer to the webpage below.

[www.macalester.edu/academicprograms/academicpolicies/academicintegrity/](http://www.macalester.edu/academicprograms/academicpolicies/academicintegrity/)

\*The wording in this section is 100% copy-pasted (with permission!) from my colleague Dr. Cari Gillen-O'Neel!

# Weekly schedule, generally

## Monday:

- during class: lecture
- to-do: start the week's reading

## Tuesday:

- during class: lab! meet in OLRI 349 at 9:40
- to-do: discussion prep for Wednesday

## Wednesday:

- during class: group discussion! and mini-lecture

## Thursday: no class!

- to-do: get caught up on material from the week

## Friday:

- during class: surprise quiz! and mini-lecture
  - weekly quizzes are ungraded and part of your participation :)

## Questions & Answers

**Q: "How should I contact you?"**

**A:** via email (I will respond within 36 hours), or visit my office during drop-in times

**Q: "What should I call you?"**

**A:** Please call me "Dr. J" or "Ariel" (AIR-ee-uhl). I use she/her pronouns.

**Q: "What about the pandemic?  
How will class work?"**

**A:** At minimum, we will follow all guidance from our [Mac Stays Safer commitment](#). Whether we want to have additional precautions in our classroom will be an ongoing conversation. Stay home if you are sick! We'll get you caught up. If I get sick/need to isolate, we can go virtual for as long as needed.

**Q: "Can I see your dogs?"**

**A:** Of course.  
[@murphyandjodiejamesanderson on IG](#)

## Exams

Midterm exams will include multiple choice or true/false questions about the material we've covered (lectures & readings) since the previous exam. Your scores will be weighted in your final grade from worst to best as follows: 0%, 5%, 10%.

Because you can essentially drop one midterm exam, I do not allow make-up exams except under special circumstances.

The final exam will be a timed take-home exam consisting of open-book, open-note essay questions. The exam will take place during the final exam period.

## Absences & late work

You have **4 "flex tokens"** this semester that you can use to:

- miss a day of in-class work
- miss a weekly assignment
- get a 48-hour extension on a major assignment

without penalty or explanation! Just let me know that you're using a token.

\*You do **NOT** need to use a token for religious observances, COVID-related absences, or accommodations via Disability Services.\*

If you need more than the 4 tokens, exceptions can be granted under many circumstances. **Please reach out to me ASAP** so we can discuss!

## Accessibility & Resources

**School is hard.** Living during a pandemic is also hard. I encourage you to **make your well-being a priority** throughout this module and beyond. Investing time into taking care of yourself will help you engage more fully in your academic experience. Remember that beyond being a student, **you are a human being** carrying your own experiences, thoughts, emotions, and identities with you. It is important to acknowledge any stressors you may be facing, which can be mental, emotional, physical, cultural, financial, etc., and how they can have an impact on your academic experience. I encourage you to remember to **attend to and advocate for your needs**. This might include snacking during class, standing up to stretch, or leaving the classroom. **Please do what is necessary so long as it does not impede your or others' ability to be mentally and emotionally present in the course.** Sleeping, moving your body, and connecting with others can be strategies to help you be resilient at Macalester.

If you are having difficulties maintaining your well-being, please don't hesitate to **contact me** and/or find support from other resources listed on Moodle under **"Resources"**.

If you think you might need **accommodations** for a disability (e.g. depression, anxiety, chronic pain, etc.), please contact the **Disability Services Office** ([disabilityservices@macalester.edu](mailto:disabilityservices@macalester.edu)) at your earliest convenience.

# Tentative Reading List

Textbook: Goldstein, E.B. (2019) *Cognitive Psychology: Connecting Mind, Research, and Everyday Experience* (5<sup>th</sup> ed.) Cengage Learning

1. Moray, N. (1959). Attention in dichotic listening: Affective cues and the influence of instructions. *Quarterly Journal of Experimental Psychology*, 11(1), 56-60.
2. Wood, N., & Cowan, N. (1995). The cocktail party phenomenon revisited: How frequent are attention shifts to one's name in an irrelevant auditory channel? *Journal of Experimental Psychology: Learning, Memory and Cognition*, 21, 255-260.
3. Treisman, A. M., & Gelade, G. (1980). A feature-integration theory of attention. *Cognitive psychology*, 12(1), 97-136.
4. Ariga, A., & Lleras, A. (2011). Brief and rare mental “breaks” keep you focused: Deactivation and reactivation of task goals preempt vigilance decrements. *Cognition*, 118(3), 439-443.
5. Sternberg, S. (1966). High-speed scanning in human memory. *Science*, 153(3736), 652-654.
6. Karpicke, J. D., & Blunt, J. R. (2011). Retrieval practice produces more learning than elaborative studying with concept mapping. *Science*, 331(6018), 772-775.
7. Harnad, S. (2003). Categorical perception. *Encyclopedia of Cognitive Science*. Nature Publishing Group/Macmillan.
8. McMurray, B. Tanenhaus, M.K., & Aslin, R.N. (2002). Gradient effects of within-category phonetic variation on lexical access. *Cognition*, 86(2), B33-B42.

**“When should I do the reading?”** Our Moodle page will show you which readings align with which specific reflections, discussions, and quizzes. If we’re doing a group discussion of the reading (usually on Wednesdays), you need to submit a reading reaction the day before. Some readings specifically correspond with a lab report; you may need to submit a reflection or quiz about it before the lab report is due. For other readings (usually the textbook), it is up to you when to do the reading. Just be sure to catch up in time for quizzes (usually on Fridays) which can cover anything from readings or lectures since the last quiz.

# Tentative Course Schedule\*

Week	Dates	Class topics	Lab	Readings**
1	Aug. 31-Sept. 2	What is cognition; history	<b>No lab</b>	Ch. 1
2	Sept. 5-9 <b>Labor day: 5</b>	Perception	R practice	Ch. 3, #1, #2
3	Sept. 12-16	Attention	Attention lab	Ch. 4, #3
4	Sept. 19-23	Attention	Attention lab	Ch. 4, #4
5	Sept. 26-30	Memory systems	<b>Exam #1</b>	Ch. 5
6	Oct. 3-7	Short term memory	Memory lab	Ch. 6, #5
7	Oct. 10-14 <b>No class, IRT: 14</b>	Long-term memory	Memory lab	Ch. 6, 7
8	Oct. 17-23 <b>Dr. J out: 19</b> <b>Fall break: 20-23</b>	Intentional learning	<b>No lab:</b> Tuesday is Thursday this week	Ch. 7, #6
9	Oct. 24-Oct. 28	Knowledge representation	Language lab	Ch. 9, , #7
10	Oct. 31 - Nov. 4	What is language; speech perception	Language lab	Ch. 11, #8
11	Nov. 7-11	Words and sentences	<b>Exam #2</b>	Ch. 11
12	Nov. 14-18 <b>P'nomics: 17-20</b>	<u><a href="#">Psychonomics!</a></u>	Psychonomics!	Psychonomics!
13	Nov. 21-25 <b>Thxvg: 23-27</b>	Language acquisition	Group project	TBD
14	Nov. 28-Dec. 2	Judgment & reasoning	Group project	Ch. 13
15	Dec. 5-9	Wrapping up	<b>Exam #3</b>	
<b>Final exam period: Tuesday Dec. 14th - Friday Dec. 17th</b>				

\* Refer to Moodle for the finalized, detailed schedule for each week.

\*\*You will not always need to read the entire chapter/paper. Check Moodle!