# **COGNITIVE PSYCHOLOGY**

Mon January 8<sup>th</sup> to Fri May 3<sup>rd</sup>, 2024 PSYC 208 section 002 — Spring 2024 — 3 credit hours

#### **Class times:**

• Lectures:

Location: Founders Hall room 0116

- o Monday & Wednesday 3-4:15pm
- Final Exam:
  - o Tues April 30<sup>th</sup> 2-3:40pm
- Office hours: get help, and/or chat! (also by appointment).

Location: Alumni Hall room 0130 (basement)

- o Thursdays 1-3pm
- Last day to drop (100% refund): Jan 19<sup>th</sup>
- Last day to withdraw (W grade): March 22<sup>th</sup>

#### Your instructor:

• Dr. Jason Finley

o email: jafinle@siue.edu

o phone/text: 949-433-4216

o office: 0130 Alumni Hall

#### **Required course text:**

Goldstein, E. B. (2019). Cognitive psychology: Connecting mind, research, and everyday experience (5th ed.). Cengage.

#### Tech we will be using:

- Blackboard: https://bb.siue.edu
  - o PowerPoints, quizzes, and links to online experiments will be here.
- Online experiments. Most (but not all) of the online experiments will be done on this site:
  - o https://opl.apa.org/
    - OPL (Online Psychology Laboratory) Class Number: 955704
    - You will need to register (free)

#### My Teaching Philosophy

My goal is to spark a sense of wonder in students, and to equip them with the skills to think better and become better people.

#### How to communicate with me?

I will do my best to respond to emails within 24 hours on weekdays. Please use a descriptive subject line (e.g., "PSYC208: question about visual imagery"). *You don't need to email me about missing a class. And please don't email me asking for deadline extensions*; there is already a flexible late policy built into the syllabus, read it below. Please address me as Dr. Finley, Professor Finley, or Prof. Finley.

Course Catalog Description: This course offers a broad survey of cognitive psychology. Topics covered include attention, perception, memory, language, reasoning, and decision making.

Prerequisite(s): PSYC111 or equivalent (intro psych).

# **Course Description from Dr. Finley:**

How does the mind work? Here's an analogy: think of the brain as the hardware of a computer, and the mind as the software. Cognitive psychology is about using science to try and reverse-engineer the software of the mind. How does the mind receive information from the world, how does it store and process that information, and how does it output responses? The topics of cognitive psychology underly everything about the everyday human experience. You will learn a lot of really interesting things about your own mind, and you will learn about the research that has yielded such knowledge.

#### **Course Objectives:**

The learning activities, assignments, and exams in this course assess your mastery of these learning outcomes:

- Understand the key findings and theories in cognitive psychology.
- Understand the scientific process by which findings are evaluated and theories are created and tested.
- See how cognitive psychology is relevant to your existence.

Note that my job is to *help* you learn, not *force* you to learn. Learning requires time and effort. I am here to help you, but you need to also take responsibility for your own learning.

#### **Class Etiquette/Logistics:**

- Come to class, unless you are sick.
- Be kind and considerate to each other.
- <u>Take notes</u>. Whether it's lecture, lab sessions, or reading the book, you'll want to be taking notes. On paper or on computer? Both have their advantages; use whatever works best for you.
  - o A note about the powerpoints: The powerpoint slides will be posted before each lecture. But I do NOT recommend you having the slides opened on your computer and staring at them during the lecture. I use a lot of animations in my slides to pace when and where things appear on the screen. If you have the slides opened on your computer during class, you won't see those animations and will instead see everything all at once and it may be confusing. It may also spoil any in-class demonstrations we do. The slides are helpful for you to have when studying outside of lecture, and I often have additional notes in the notes section for each slide. But during lecture, you're better off paying attention to the main screen that I'm presenting at the front of the class.
- Please be mentally present. I will strive to not be boring.
- Please do your part to *minimize distraction*. Silence your cell phone, no texting. Computers are for note-taking and other course-related activities, *not* for TikTok, YouTube, Instagram, Facebook, etc.
  - Don't mess around with your phone for purposes unrelated to class.
- No antimatter in class; trust me on this.
- <u>Ask questions</u>! Seriously! Speak up whenever you have questions, don't understand something, have answers, have ideas, etc. Asking questions is a sign of WISDOM, and it's also a great way to learn.
- You may make recordings of class, but note that instructional material created by the
  professor is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike
  4.0 International license (CC BY-NC-SA 4.0). Meaning that you can share and adapt the
  material as long as you give credit and it is for non-commercial purposes. Content
  created by third parties (e.g., movies, textbooks) is covered by its own copyright licenses.

#### Overview of what you need to do for this course:

- Attend class and participate.
- Do the assigned reading from the textbook (and any other assigned sources).
  - o When should you do the reading? Before class is best. Soon after class is ok too.
- Do the online experiments before the assigned class days

- Do the chapter quizzes
- Take the three exams
- Ask me for help when you don't understand something.

# **HOW TO LEARN AND DO WELL IN COLLEGE:**

## **Lessons from Cognitive Psychology**

- 1. Create a study group that meets before each exam to review class material. Talk through things together, explain things to each other, make connections between concepts.
- **2.** If you have three hours total to study, three 1 hour sessions <u>spaced apart</u> are much more effective than one three hour session the night before the exam.
- **3.** Learning requires adequate sleep. So get some sleep. Also, stay hydrated (i.e., drink water).
- 4. Taking notes in your own words is a far more effective learning tool than either writing down exactly what I say or simply reviewing the text or lecture notes. Simply reviewing PowerPoint slides may be the worst strategy you could use, especially if you were not in class that day. Also, if you take notes on paper, the process of physically organizing your notes will influence your mental organization as well. Taking notes on computer can be fine too, and has the added benefit of searchable text.
- **5. QUIZ YOURSELF.** The <u>retrieval practice effect</u> (aka the testing effect) shows us that every time you retrieve something from memory, you strengthen that memory. Wanna hear some really ineffective study strategies? Re-reading your notes, looking over the powerpoints, re-reading the book and highlighting/underlining. Those things might make you *feel* like you understand and remember stuff, but that doesn't mean you actually do! Instead, try things like this:
  - a. After class, think back over the topics you learned. Flip to a blank page in your notes and jot down the main topics from memory. Make an outline. Maybe try explaining to someone else what you learned that day.
  - b. When reading the book, read a few pages, then pause to mentally review what you learned. Jot things down on a blank page without looking back at the text yet. See? You're quizzing yourself!
  - c. Make and use flashcards (on paper or online using websites like quizlet.com). But don't cheat! Look at one side of the card (e.g., a key term) and actually retrieve the meaning and say it out loud before flipping over the card to see the answer. If you just flip without retrieving first, and you're like "yeah I knew that!" you're not doing yourself any favors.
  - d. Use any practice exam/quiz questions if available. Don't look at the answers until after you've tried to retrieve from your memory.
  - e. Use any review questions in the textbook chapters.
  - f. Try writing your own multiple choice questions about key topics

- g. Think of it this way: let's say an upcoming test would require you to throw a basketball into the hoop from a certain distance. What do you think would be the most effective way to prepare for that test: (a) reading about basketball over and over again, (b) watching videos of other people throwing basketballs, or (c) actually practicing throwing the basketball yourself? Obviously, c. It's the same with academic tests. Your task on the test will be to remember things and apply the concepts you've learned; so that's what you should actually practice!
- 6. You are not the multi-tasker you think you are! You can only do one task at a time that requires controlled attention. Switching between tasks has cognitive costs. If you're using a computer to take notes, and you also have other programs like messages going, your attention is divided and your comprehension will suffer. If you're studying and there is noise or other stuff going on, your attention is divided and your comprehension will suffer. Study in a quiet environment with no distractions.
- 7. Relate concepts to your personal experience when applicable.
- **8.** If you've made it this far in the syllabus, go to the Syllabus Extra Credit on Blackboard and enter the underlined key phrase from point 5 above to get some extra credit.
- 9. Don't wait until you are struggling to come to me for help! Thinking you understand and actual understanding is not the same thing. Successful people seek out feedback about their knowledge rather than rely on subjective internal evaluations of learning.

**Evaluation:** Your grade in this course will be based on:

Exams	67%
Exam 1 (chapters 1-4): 22%	
Exam 2 (chapters 5-8): 22%	
Exam 3 (chapters 9-13): 23%	
Online Experiments	15%
11 worth 1.5% each (drop lowest)	
Chapter Quizzes	18%
13 worth 1.5% each (drop lowest)	
Total:	100%

#### There are 100 points possible in this course.

A note about this, since a few students complain every year: There will be fractional points available on everything, so having "only" 100 total points in the course does *not* make the course more difficult. It just makes your grade calculation simpler and easier to understand. If this still bothers you, just imagine there is an extra zero after everything and it's 1,000 total points instead, okay?

Final letter grades will be based strictly on the following scale:

89.50	۷I	A	V١	100
79.50	١٨	В	<	89.50
69.50	>	С	<	79.50
59.50	<	D	<	69.50
0	<	F	<	59.50

Final scores will be rounded to two digits. For example, a final score of 89.495 would be rounded up to 89.50, and a final score of 89.494 would be rounded down to 89.49.

#### Exams (67%):

There will be three in-class exams, worth 67% of your class grade total. Exams will consist of multiple choice questions on Scantron forms that I will provide. Exam 1 will cover book chapters 1-4, plus any material from class or assignments or additional readings up until that point. Exam 2 will cover book chapters 5-8, plus any material from class or assignments or additional readings after Exam 1. Exam 3 will cover book chapters 9-13, plus any material from class or assignments or additional readings after Exam 2, and any huge main recurring topics from the whole course. There will be study guides available for each exam, outlining the major topics.

Make-up policy: If you are absent for an exam, you will get a score of 0. If illness or other extraordinary circumstances beyond your control will prevent you from being present for an exam, you must notify me BEFORE THE EXAM in order to be considered for a make-up exam. Make-up exams will be given and scheduled at my discretion, and may be different (i.e., *more difficult*) from the regular exams given in class.

#### **Online Experiments (15%)**

These give you some firsthand experience participating in tasks like those in the research you will be learning about! There will be 11 of these, linked from Blackboard. They are due before class time for the dates indicated in the schedule at the end of this syllabus. Most, but not all, of them will be on the APA site opl.apa.org where you will make a free account and enter the course number listed on the first page of this syllabus. After doing each experiment, you will answer a question or two about it on Blackboard. Each experiment is worth 1.5% of your grade. You can drop the lowest score; that means you could miss one without any penalty. Experiments completed late will earn half credit if completed before the next exam (e.g., a late experiment that went with chapter 5 would have to be completed before Exam 2 to earn half credit).

#### **Chapter Quizzes (12%):**

For each chapter there will be a short multiple-choice quiz for you to complete on the course website. Each quiz must be completed by 11:59pm on the Sunday indicated in the schedule at the end of this syllabus. There is no time limit for the quizzes, as long as you submit your answers before the deadline. You can retake the quizzes multiple times and your highest score will be the one that counts. You can use the book and your notes on the quizzes, but you must work individually.

The quizzes will be *mostly* based on question banks from the textbook. It seems likely you could find a way to cheat on these questions by finding the answers online, and I have no way to prevent that. But, you'd only be harming your own learning, and you're in college to learn, right? So don't cheat. Instead, use your brain and the book and your notes to help you answer the questions. The quizzes serve to boost your learning, as well as rewarding you for keeping up with the reading. Also, they're good practice for the exams.

Each quiz is worth 1.5% of your grade. You can drop the lowest score; that means you could miss one without any penalty. Quizzes completed late will earn half credit if completed before the next exam (e.g., a late quiz for chapter 3 would have to be completed before Exam 1 to earn half credit).

#### Extra Credit (?%)

I reserve the right to *potentially* offer extra credit opportunities, but don't count on them. Any such opportunities would be equally available to all students, so don't ask me for special extra credit just for you.

I am likely to offer some in-class extra credit from time to time, to reward you for attending. One example would be a second chance to answer some of the more challenging questions from a recent exam.

#### **Services for Students Needing Accommodations**

It is the policy and practice of Southern Illinois University Edwardsville to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or to accurate assessment of achievement—such as time-limited exams, inaccessible web content or the use of non-captioned videos—please contact Accessible Campus Community and Equitable Student Support (ACCESS) as soon as possible. In order to properly determine reasonable accommodations, students must register with ACCESS either online at <a href="https://siue.edu/access">https://siue.edu/access</a> or in person in the Student Success Center, Room 1203. You can also reach the office by emailing us at <a href="mayaccess@siue.edu">myaccess@siue.edu</a> or by calling 618-650-3726.

If you have accommodations from ACCESS, you MUST COMMUNICATE WITH ME, so I can know what your needs are and work with you. For example, if you are approved for extra time on exams, and you want to use that accommodation, you have to talk to me about it first so we can schedule something.

## **Diversity and Inclusion**

SIUE is committed to respecting everyone's dignity at all times. In order to learn, exchange ideas, and support one another, our virtual and physical classrooms must be places where students and teachers feel safe and supported. Systems of oppression permeate our institutions and our classrooms. All students and faculty have the responsibility to co-create a classroom that affirms inclusion, equity, and social justice, where racism, sexism, classism, ableism, heterosexism, xenophobia, and other social pathologies are not tolerated. Violations of this policy will be enforced in line with the SIUE Student Conduct Code.

The Hub <a href="https://www.siue.edu/csdi">https://www.siue.edu/csdi</a> is an excellent resource for students for support and community. Any person who believes they have experienced or witnessed discrimination or harassment can contact Ms. Jamie Ball, Director in the Office of Equal Opportunity, Access and Title IX Coordination at (618) 650-2333 or <a href="mailto:jball@siue.edu">jball@siue.edu</a>. There is also an online form for reporting bias incidents at

https://cm.maxient.com/reportingform.php?SIUEdwardsville&layout id=10.

#### **Academic and Other Student Services**

As an enrolled SIUE student, you have a variety of support available to you, including:

- Lovejoy Library Resources
- Academic Success Sessions
- <u>Tutoring Resource Center</u>
- The Writing Center
- Academic Advising
- Financial Aid
- Campus Events
- Counseling Services

If you find that you need additional support, please reach out to me and let me know.

# **Mental Health Support**

Dealing with the fast-paced life of a college student can be challenging, even when we're not in the midst of a worldwide crisis. I encourage you to reach out when you need mental health support (e.g., anxiety, depression). Students have access to counseling services on campus (Student Success Center, 0222).

Make an appointment by visiting <u>cougarcare.siue.edu</u> or by calling <u>618-65</u>0-2842.

Through either a mobile app or your desktop, TimelyCare provides 24/7 access to virtual care from anywhere in the United States at no cost. Visit <u>timelycare.com/SIUE</u> or download the TimelyCare app from your app store and register with your school email address.

Find an online therapist through PATH: https://www.pathmentalhealth.com/siue

If you're in crisis: <a href="https://www.siue.edu/counseling/online-emergency-services/index.shtml">https://www.siue.edu/counseling/online-emergency-services/index.shtml</a> Self-help resources: <a href="https://www.cci.health.wa.gov.au/Resources/Looking-After-Yourself">https://www.cci.health.wa.gov.au/Resources/Looking-After-Yourself</a>

Online therapy worksheets and activities: https://www.therapistaid.com/

#### **Student Success Coaches**

<u>Student success coaches</u> work across campus to serve the SIUE student population with the tools and resources to adjust to and meet the demands of the college experience. Success coaches provide direct services such as time management support and referrals to campus resources. If you find yourself in need of academic or personal support, or in a situation that is preventing you from being successful in the classroom, please utilize <u>Starfish</u> to connect with a coach as soon as possible. The sooner you engage, the sooner you can access the information or tools you need that may help you get back on track.

# Academic integrity/plagiarism

The expectations and academic standards outlined in the <u>Student Academic Code (3C2)</u> apply to all courses, field experiences and educational experiences at the University, regardless of modality or location.

Plagiarism is the use of another person's words or ideas without crediting that person. Plagiarism and cheating will not be tolerated and may lead to failure on an assignment, in the class, or dismissal from the University, per the <u>SIUE academic dishonesty policy</u>. Students are responsible for complying with University policies about academic honesty as stated in the University's Student Academic Conduct Code.

Unless expressly allowed by the instructor, the use of artificial intelligence (AI) tools and applications (including ChatGPT, DALL-E, and others) to produce content for course assignments and assessments is a violation of SIUE's academic policy and is prohibited.

We have ways of detecting plagiarism and use of AI, so don't do it!

ANY case of academic dishonesty (e.g., cheating on a writing assignment, quiz, or exam or allowing others to cheat off of you, or other dishonest act *regardless of the point count*) will receive the recommended university policy, failure of the course and reporting of the case to the Provost. Students are reminded that the expectations and academic standards outlined in the Student Academic Code (3C2) apply to all courses, field experiences and educational experiences at the University, regardless of modality or location. The full text of the policy can be found here: <a href="https://www.siue.edu/policies/3c2.shtml">https://www.siue.edu/policies/3c2.shtml</a>

# **Psychology Department writing policy**

As a student in this course, you will be expected to display university-level writing, which includes completing course assignments that meet the following basic writing criteria. Specifically, all written assignments completed for this course should include:

- clear transitions from sentence to sentence and idea to idea (i.e., paper is organized/flows well);
- verb tense consistency;
- clear and unambiguous sentences and ideas;
- writing that is free of typos, spelling errors, and major grammatical errors;

• properly formatted citations and references (if relevant).

This is by no means an exhaustive list of basic writing skills, but will give you an idea of what we are looking for in our papers. If you feel you need help with your writing, you are encouraged to seek assistance from the <u>writing center</u> on campus or utilize one of the many <u>online resources</u> they have identified to help students. If your graded written assignments fail to meet the basic writing requirements listed above (and any others found to be appropriate by your instructor), the instructor will stop the grading process and return the paper to you with the grade of 0. You will have 48 hours to return the assignment in an acceptable form; if it still fails to meet the basic writing criteria, the grade of 0 will remain.

# Subject to change notice

All material, assignments, and deadlines are subject to change with prior notice. It is your responsibility to stay in touch with your instructor, review the course site regularly, or communicate with other students, to adjust as needed if assignments or due dates change.

Week	Date	Торіс	Reading Chapter	Experiment (due before class)	Quiz Due by 11:59pm	
1	Mon Jan 8	Intro to Cog Psych, the Science of the Mind	Ch. 1			
	Wed Jan 10	Intro to Cog Psych, the Science of the Mind	Ch. 1	RT color		
	Sun Jan 14				Ch. 1 Quiz	
	Mon Jan 15	No Class MLK Day				
2	Wed Jan 17	Cognitive Neuroscience	Ch. 2			
	Sun Jan 21				Ch. 2 Quiz	
	Mon Jan 22	Cognitive Neuroscience	Ch. 2			
3	Wed Jan 24	Perception	Ch. 3			
	Sun Jan 28				Ch. 3 Quiz	
	Mon Jan 29	Perception	Ch. 3	Ponzo Illusion		
4	Wed Jan 31	Attention	Ch. 4			
	Sun Feb 4				Ch. 4 Quiz	
	Mon Feb 5	Attention	Ch. 4	Stroop		
5	Wed Feb 7	Exam 1: chapters 1-4				
	Sun Feb 11					
	Mon Feb 12	Memory: short-term/working	Ch. 5			
6	Wed Feb 14	Memory: short-term/working	Ch. 5	Numerical Memory		
	Sun Feb 18				Ch. 5 Quiz	

Week	Date	Торіс	Reading Chapter	Experiment (due before class)	Quiz Due by 11:59pm	
7	Mon Feb 19	Memory: long-term: structure	Ch. 6			
	Wed Feb 21	Memory: long-term: structure	Ch. 6	Serial Position		
	Sun Feb 25				Ch. 6 Quiz	
	Mon Feb 26	Memory: long-term: encoding, retrieval, consolidation	Ch. 7			
8	Wed Feb 28	Memory: long-term: encoding, retrieval, consolidation	Ch. 7	Self Reference		
	Sun Mar 3				Ch. 7 Quiz	
	Mon Mar 4 - Fri Mar 9	SPRING BREAK WEEK OFF				
	Mon Mar 11	Memory: everyday and errors	Ch. 8			
9	Wed Mar 13	Memory: everyday and errors	Ch. 8	DRM False Memory		
	Sun Mar 17				Ch. 8 Quiz	
	Mon Mar 18	Memory: everyday and errors	Ch. 8			
10	Wed Mar 20	Exam 2: chapters 5-8				
	Sun Mar 24					
	Mon Mar 25	Conceptual Knowledge	Ch. 9			
11	Wed Mar 27	Conceptual Knowledge	Ch. 9	Lexical Decision		
	Sun Mar 31				Ch. 9 Quiz	
	Mon Apr 1	Visual Imagery	Ch. 10			
12	Wed Apr 3	Visual Imagery	Ch. 10	Mental Rotation		
	Sun Apr 7				Ch. 10 Quiz	

Week	Date	Торіс	Reading Chapter	Experiment (due before class)	Quiz Due by 11:59pm	
	Mon Apr 8	TOTAL SOLAR ECLIPSE! no in-person class.  Video: Language	Ch. 11			
13	Wed Apr 10	Language	Ch. 11			
	Sun Apr 14			_	Ch. 11 Quiz	
	Mon Apr 15	Problem Solving & Creativity	Ch. 12			
14	Wed Apr 17	Problem Solving & Creativity	Ch. 12	Mazes		
	Sun Apr 21				Ch. 12 Quiz	
	Mon Apr 22	Judgment, Decisions, Reasoning	Ch. 13			
15	Wed Apr 24	Judgment, Decisions, Reasoning	Ch. 13	Monty Hall		
	Sun Apr 28				Ch. 13 Quiz	
1.6	Mon Apr 29					
16	Tues Apr 30	FINAL EXAM: 2-3:40pm (chapters 9-13)				