Psychology 332: Cognition & Learning

Location Loras College	Science Hall 109 T/TH 9:30 - 10:50
Psychology Program	Spring 2018

Instructor: Jake Kurczek, PhD
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Office Hours: By appointment

Textbook: *None*
Additional journal articles and materials will be assigned as needed and posted to the course website

Class Website: You will be able to find PDFs of the lectures and discussions posted to the course website

Course Goals and Overview

An overview of how people learn, acquire and use knowledge. Course examines mental processes to include: learning, memory, and cognition.
Prerequisites: L.PSY-101. Recommended: L.PSY-211.

Course Objectives

Students completing this course will be able to:

- Explain current theories on attention, perception, memory, problem solving, decision making and language comprehension and production within a cognitive psychology framework.
- Apply cognitive psychology terms, elements, or principles to everyday mental and behavioral activities
- Describe research findings in cognitive psychology and relate those findings to everyday experiences with attention, perception, memory, problem solving, decision making or language comprehension and production.
- Given a brief description of an experiment, you will be able to recognize which everyday experience is informed by that experiment's results and recognize major contributions of that experiment to our current understanding of cognitive psychology.

- Given a cognitive psychology principle and an experiment on that principle, you will be able to correctly recognize what sort of results you would expect to find from the experiment.

Learning Outcomes
Students who take this course should be able to:

1. Demonstrate familiarity with the major concepts, theories, related to cognition & learning
2. Apply these principles to their own experiences and career goals
3. Explain and discuss ideas and issues from the course civilly with other students
4. Use critical thinking to synthesize acquired information creating new ideas or conclusions.
5. Demonstrate standard writing.

Course Requirements, Policies and Assignments

Course information and assignment details are found in the Syllabi Appendices on the Course Onboarding document called Course Information and Assignment Details (with Assignment Rubrics).

Assignments

Applied Memory/Cognition	10
Research Proposal	14
Presentation	2
Cog Lab	6
News Update	2
Exam 1	10
Exam 2	10
Exam 3	10
Reflection	2
Discussion Leader	5
Memory/Cognition Fundamentals	10
Checks	4
Engagement	15
Total	**100**

Research Proposal. You are required to design a cognitive psychology/neuroscience experiment, as well as discuss the relevant experimental literature and provide a rationale for your experiment. Note that this proposal is for a unique experiment - you may NOT suggest a replication of research already published. The format of the proposal should correspond to the Introduction and Methods sections of an article in an APA journal. The Introduction should include a comprehensive review of the existing literature that is relevant to your proposed

experiment. At the end of the Introduction, you should briefly describe the experiment in general and make it clear why your experiment is worthwhile and what significance the results might have to existing theories and further research. The Introduction should be between 600 and 800 words. The Methods section tells the reader what materials are required for the experiment and what exactly will happen to the participants. This section should be as long as necessary to thoroughly describe the materials and procedure of the experiment. Your proposed experiment may pertain to any area of cognitive psychology. The proposal will be graded for creativity, novelty, ingenuity, complexity, style, and adherence to APA rules regarding citations (in the Introduction) and references (on the Reference Page). Make sure that your reference format follows the format described in the APA Publication Manual.

Applied Memory. Students are asked to engaged in one of two experiential projects.

Option 1: Learning Scientists
Implement and document your attempts to incorporate better learning and memory strategies into your studies for your classes. The learning scientists are cognitive scientists who are interested in research on education. On their website they provide a number of resources that can help you better study and learn.

1) Start by writing a 2 page reflection on your current study techniques and success (or failure)
2) Keep a weekly journal that describes and *analyzes* your learning and learning process. You can analyze your learning by tracking your memory performance and finding one paper on learning/memory per week and analyzing your experience through the lens of the findings of the paper.
3) Write a medium article (minimum 6 minute read - not including references) that summarizes your progress and situates your learning and experience in the learning literature.

Option 2: Memory Champion
While the learning scientists present useful memory and learning strategies, it might be more fun to be able to display your memory prowess using the memory techniques of memory champions.

1) Test your memory ability (either, numbers, playing cards, words, names and faces) at the beginning of the semester.
2) Keep a weekly journal that describes and *analyzes* your memory and learning process. You can find help here, here, and here. You should track your progress numerically and statistically.
3) Write a medium article (minimum 6 minute read - not including references) that summarizes your progress and situates your progress and experience in the memory sports/champions literature. You also need to include graphs/summaries of your memory progress.

Option 3: Memory Teacher
Apply your understanding of memory to design better ways to help others memorize. Are you a member of a theater group? How do actors memorize parts? Is it the most efficient approach? Are you a member of a sports team that has to learn plays? Is it the most efficient approach?

1) Identify the strengths and weaknesses (based on the literature) of current practices for an area where learning and memorizing is important. Discuss those in a 3 page paper
2) Develop an evidence-based intervention that is a more efficient way to memorize
3) Write up your intervention that situates and contrasts it to standard practice in a medium article (minimum 6 minute read - not including references)

Option x: Roommate Study (available Fall 2018)
Naturalistic study of episodic memory is often difficult. Laboratory based studies of memory and learning generally rely on contrived forms of learning.Thompson (1982) attempted a naturalistic for unique personal events in “the roommate study”. You are asked to participate in a replication.

1) You are asked to complete a pre-survey of your episodic/declarative memory
2) 4 days per week (3 weekdays and 1 weekend day), you are asked to record two events each day, for both yourself and your close other (total of 4 events)
    a) These events should be a shared experience with your target participant
    b) These events should be unique (i.e., they should occur no more than once during the semester)
    c) The events should not be embarrassing
    d) They should be written in three sentences or less
    e) At the time the event is recorded you should rate using the different scales
3) 3 weeks before the end of the semester fill-out the SIME
4) 2 weeks before the end of the semester participate in a memory study for both yourself and your close other

Applied Memory or Research Proposal Presentation. Psychology conferences typically host symposium sessions, in which researchers construct talks to present their research findings from a recent study or studies. The last few days of class will consist of an academic symposium. During the session, each student will present either their applied memory experience or research proposal that they have developed over the course of the semester. This also includes a five minute presentation overview completed in powerpoint/google slides.

Cog Lab. A fundamental aspect of cognitive psychology is research. Across the semester you are asked to participate in 12 online cognitive psychology experiments. On the checklist you’ll see the latest day that you can turn in your 1) results and 2) a one page (max) reflection (what does your performance mean, what did you learn, what questions do you have now). You can keep the labs together in one document that you continue to upload.

Reflection Paper. Students are asked to write a 3 page, double-spaced reflection paper.

News Updates. Students will be asked to give a news update on a topic of their choice across the semester.

Memory/Cognition Fundamentals. The fundamentals are a 20 minute presentation (powerpoint or google slides) introduction to a focused topic. These slide decks will be graded for their content (importance, relevance and accuracy of facts), organization/clarity (appropriate introduction, body and conclusions, ordering ideas and transitions between major points) and completeness/format (level of detail, depth, appropriate length and adequate background information) and public presentation (ease of understanding, explanation of complex topics in understandable terms). These are due by 9:00PM 2 days before they are scheduled to be presented (e.g. due on 2/11 for a 2/13 presentation).

Discussion Leader. Discussion leaders will be completed in pairs.

Engagement

In-Class Participation/Activities/Discussion/Critical Thinking Journal
Out of class engagement

Exam. There will be three exams. The exam questions may include the following question formats: multiple--choice; fill--in--the--blank; matching; true/false; and short-answer sections.

Comprehension Checks. On a class-to-class or weekly basis may include the following question formats: multiple--choice; fill--in--the--blank; matching; true/false; and short-answer sections.

Schedule

Important Dates

1/29 – First day of classes
2/16 - Last day to drop classes without “W”
3/23 - Last day to drop without receiving an “F”
3/26 - 4/2 - Easter Break
5/11 - Last Day of Classes
5/14-5/17 – Final Exams

View the checklist at this link and track your semester.
*Tentative schedule subject to change without notice as instructor deems necessary