**Psych 301CL, Cognitive Processes Fall 2020 — Mon/Wed —12:00-1:50**

**Location:** ONLINE

**Instructor: Dr. Vita Droutman**

**Office Hours:** After live lecture/lab meeting or by appointment

**Contact Info:** [droutman@usc.edu](mailto:droutman@usc.edu)

**Course Description**

This course introduces you to one of the most powerful and productive modern disciplines for studying the human mind. From the perspective of computation and information processing, you will learn how the mind perceives, remembers, represents concepts, reasons, and makes decisions. Theoretical and empirical results introduced in this class are the foundation for understanding human behaviors and performance.

**Learning Objectives**

The learning objectives of this course are for you to (1) understand, (2) apply, and (3) critique the theoretical frameworks and research designs used by Cognitive Psychology to investigate the human mind and behaviors.

**Prerequisite(s):** PSYC-100

**Course Notes**

A course website at blackboard.usc.edu will be used throughout the semester for dissemination of course materials such as announcements, homework assignments, lecture notes, grades, and additional readings. It is very important that you check the course website frequently. All homework assignments and lab reports must be submitted to Bb by the publicized deadline. The preferred means of communication for all matters other than homework and lab report is through email.

**Attendance and participation**

This is fully online class that assumes student’s participation during scheduled times. Participation in weekly zoom lab meetings and completing bi-weekly online scheduled quizzes during class hours is required. Students located in a different time zone for whom this class falls outside of 8am to 9pm will be accommodated on case by case bases – please email Dr. Droutman your location, time zone and local time for this class.

**Technological Proficiency and Hardware/Software Required**

This class includes lab sessions*. Students are required to have access to a laptop and internet connection during class time in order to run some of the experiments and look at the results as we discuss them in class.* Please make sure that you can connect to the USC wireless network.

**Required Readings and Supplementary Materials**

Reisberg, Daniel. *Cognition: Exploring The Science of the Mind*. (7th Ed.). The book is available as an eBook, loose leaf, or hardcover.

ZAPS online labs. (Comes with the textbook.)

When you first attempt to access the eBook or ZAPS labs from Bb (see next section), it will prompt you to purchase access or enter your registration code. This comes with any form of the textbook you purchase.

**Readings:** The primary reading material is the textbook. Throughout the sections of the textbook are self-test questions, which might be useful for gauging how well you are understanding the course material. The link to electronic version of the textbook is under Content section of Bb (login is required to access eBook, same as you will use for ZAPS labs). There is also material on Bb that is linked to each chapter of the textbook. This can be found under the “Course Materials” navigation tab. It consists of an outline for each chapter, flashcards, and self-test quizzes (no login required for this section).

**Lectures:** will be pre-recorded and provided at least 24 hours prior to scheduled class time. There will be time every week dedicated to discussion and answering questions either before/after lab meeting or after quizzes.

**Zoom Labs:** This is a lab course (301**L**), in which the **lab sessions will be conducted live during zoom meeting**. These will typically constitute the 45-60 minutes approximately. The experiments are chosen for the topics that are directly relevant to the lectures. Starting in week 3 we will meet weekly (see class schedule for dates). The lab will consist of a lab from the ZAPS labs, which are cognitive psychology experiments that you run on a web browser on your laptop. You access the ZAPS lab website through the Assignments navigation tab on Bb. All students will run the experiment during the lab section, and the class results will be collected and made visible immediately. The lab portion of the class will also include more in-depth discussion of some areas relevant to the week’s topic. You are expected to run all the ZAPS labs assigned during the lab sections, and doing so is part of your **lab participation** grade. Some of the other activities that make up the lab sections may contain a deliverables (e.g., a questionnaire) that you will be expected to submit on Bb. These will also be considered in the lab participation portion of your grade. **Lab participation is 5% of your grade**.

**To register for ZAPS lab account click the Bb link in Assignments, it will automatically add you to our class student set 239332.** If you are not added to student set automatically, you can add it after signing up, click on settings (in the upper right corner of the screen) and select ‘Add yourself to student set’.

**Description and Assessment of Assignments**

**Quizzes (40% of grade):**

8 non-cumulative quizzes (including final) consist of multiple-choice questions.

**Lab Presentations (10% of grade)**

Each student will be assigned to present a lab from the ZAPS labs either individually or with the partner. The presentations take about 15-20 each. These consist of the presenter introducing the assigned experiment and then performing it by relying on other students as participants. Then the presenter will discuss the purpose of the experiment, the results, related work and propose challenges to the experiments findings.  Each presenter will discuss a paper that used that experiment.

***Lab Presentation signup:*** You have until midnight on ***Sunday Aug 23*** to select your presentation day/topic. If you do not sign up 8/23, your date/topic will be automatically assigned. Use Google doc below to signup:

<https://docs.google.com/spreadsheets/d/1WgjQG7UmXWKGavOxjkg8YC6zPFWJoufUPGWoEt6zgaQ/edit?usp=sharing>

**Lab Reports (15% of grade)**

Lab reports will be assigned for selected labs. You should get an adequate understanding of the experiment and what it was designed to test. A lab report should be ***uploaded on Bb*** by the stated due date. **No late report will be accepted**. Your lab report should include three sections: Background/Motivation, Results and Discussion. In the Discussion, you should:

1)  provide an interpretation of the results in the context of the theory the experiment was designed to test,

2)  challenge this interpretation using aspects that the experiment did not address, and proposes a control experiment

3)  answer all the Questions in the lab.

4) review at least 1 paper that used this experiment, discuss its hypotheses, findings and limitations. Some papers are provided in the Content section of Bb in the *Lab related readings* folder

5) propose a study idea that will use this experiment to answer a novel question

***Lab Report Peer Review:*** Peer review is a major component of the scientific process (every article published in a credible journal have been peer reviewed). You will practice providing peer feedback by reviewing each other’s Lab Reports. Completion of peer review will be a component of your Lab Report grade. The criteria for grading is provided. The peer review evaluation window opens 24 hours after the report submission is due. You will access peer review evaluation in the same Peer Review folder (Bb Assignments) where you submitted your report. ***If you did not submit the report by the deadline prior to start of evaluation period you will not be able to access peer review and will not receive peer review grade.***

**Reflection Discussions (10% of grade)**

Every week starting week 2 you will post a reflection paragraph in the online discussion forum about your reaction to the material we completed that week. This will be an opportunity to ask open ended questions about the material and also comment and reflect. You will have a choice to respond to someone else’s post or start your own. These are graded essentially Pass/Fail. You get full credit (5 points) for writing something thoughtful, and 0 points for writing something irrelevant or off-target, or for missing the assignment. More details on what kind questions to ask and not to ask on Bb/Assignments/ Online discussion.doc.

The reflections can include the following:

* Comments about the subject area, a critique of a particular theory or experiment or question/issue the material failed to answer/address.
* Your thoughts on the application of the material to reality of fiction such as examples from your life or media (news, TV, movies, books, articles) of the concepts discussed.
* If the material connects with something you learned/heard in another class or work or research – please share.
* If it perked your interest and you looked something up – it’s a great way to reflect.

***This should not be a summary of the textbook chapters***,- the goal of this assignment is to trigger deeper processing. “I learned nothing from this chapter” is not an adequate reaction, but “I learned nothing from this chapter because the researchers studying X failed to ask the critical question, which I think should be Y” is.

**Research Project** (**20% of class grade**)

The goal of this project is to investigate and analyze a real world problem using the methods discussed in class. You will do this as a group. You will have 2 deliverables: project proposal (**10% of class grade**) and project presentation (**10% of class grade**) . Proposal will summarize your arguments and list the supporting sources (1-2 pages). Your presentation will be 10-20 min. Possible topics will be posted separately in the Content section of Bb. You are welcome to come up with your own topic – email for approval.

**Extra Credit Opportunities**

**Research Participation:** You earn bonus points by serving as a subject in research conducted by Faculty members of the Department of Psychology. You do this by signing up for research sessions on http://usc.sona-systems.com/. Sign up only for studies related to *cognitive psychology* (consult the instructor if you are not sure) and for which you meet the eligibility requirements. There are only a limited number of experiments having this designation. Therefore, you should start participating as soon as possible, and not wait till the end of the semester when you need the bonus points. You can earn .5% toward your course grade for each hour of extra credit (1 SONA point), to a maximum of 3% (6 hours). To obtain this credit, for each experiment or questionnaire, you are to assume some intellectual “ownership” of the experience by writing a brief reflection. You should briefly describe the task and, most importantly, the research question the experiment was designed to address. Such reflections could be informed criticism (given the goals of the study as obtained through the feedback) or a description of how the study might be related to course concepts. Ask the experimenter after the experiment if you are unclear about the purpose of the study.

*You* ***MUST make your course selection and assign your credits to the appropriate courses***

**Grading Breakdown**

|  |  |
| --- | --- |
| **Assignment** | **% Grade** |
| Weekly Reflection Discussions | 10 |
| Lab presentation | 10 |
| Lab reports | 15 |
| Lab participation | 5 |
| Tests | 40 |
| Project Proposal | 10 |
| Final Project | 10 |
| **TOTAL** | 100 |

**Grade Distribution:**

|  |  |
| --- | --- |
| A 92 | A- 89 |
| B+ 86 | B 82 |
| B- 79 | C+ 76 |
| C 72 | C- 69 |
| D+ 66 | D 62 |
| D- 60 | F <60 |

**Assignment Submission Policy**

All assignments should be turned in through Blackboard.

**Course Schedule: A Weekly Breakdown (dates may adjust during semester).**

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| --- | --- | --- | --- | --- |
| **Week** | **Date** | **Topics/ Chapter** | **Lab / Activity** | **Deliverable /Test** |
| **1** | 17-Aug | Introduction to Cognitive Psychology / CH 1 | Live zoom class meeting |  |
|  | 19-Aug | Cognitive Neuroscience / CH2 |  | Sign up for lab presentation by 8/23 |
| 2 | 24-Aug | Attention / |  | ***Quiz 1 – CH1-2 - 8/23*** |
|  | 26-Aug | CH 5 | L1.Split Brain L2.Attentional Blink L3.Selective Attention L4.Stroop Task | Online Reflection CH 1, 2 due by 8/30 11:30pm |
| 3 | **31-Aug** | Attention / CH5 |  |  |
|  | 2-Sep | Visual Perception / CH3 |  | ***Quiz 2- Attention - 9/2***  Online Reflection CH 5 due by 9/9 11:30pm |
| 4 | 7-Sep | Labor Day – No Class |  |  |
|  | **9-Sep** | Visual Perception / CH3 | L5. Visual Search L6.Ponzo Illusion L7.Word Frequency L8 Face Perception | Lab Report (LR)1: Split Brain & Attention labs 1-4) due 9/9 Online Reflection CH 3 due by 9/13 11:30pm |
| 5 | 14-Sep | Short-Term and Working |  | ***Quiz3–Perception-CH3-9/14*** |
|  | 16-Sep | Memory / CH 6 |  | Peer Review LR1 due 9/16  Online Reflection CH 6 due by 9/20 11:30pm |
| 6 | 21-Sep | Memory Acquisition and | L9. Sensory Memory L10.Serial Position L11.Operation Span L12. Memory Span |  |
|  | 23-Sep | Retrieval / CH7 |  | LR 2 (Perception 5-8) due 9/23  Online Reflection CH 7 due by 9/27 11:30pm |
| 7 | 28-Sep | Remembering Complex | L13. Memory Bias L14.Encoding Specificity L15. False Memory | Project Proposal due 9/29 |
|  | **30-Sep** | Events / CH 8 |  | Online Reflection CH 8 due by 10/4 11:30pm  Peer Review LR2 due 9/30 |
| 8 | 5-Oct | Language / |  | ***Quiz 4 – Memory (CH6-8)-10/5*** |
|  | 7-Oct | CH 10 | L16.Lexical Decision L17.Sentence Verification | LR 3 (Memory 9-15) due 10/7  Online Reflection CH 10 due by 10/11 11:30pm |

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| 9 | 12-Oct | Judgment and Reasoning |  | ***Quiz 5-Language (CH10)-10/12*** |
|  | 14-Oct | / CH 12 | L18. Decision Making L19.Sudden Insight. L20. IAT | Peer Review LR3 due 10/14  Online Reflection CH 12 due by 10/18 11:30pm |
| 10 | 19-Oct | Problem Solving /CH13 | L21.Mental Scanning L22.Analogical Representation L23.Mental Rotation 3D |  |
|  | **21-Oct** | Intelligence / CH 13 |  | LR 4 (16-19) due 10/21  Online Reflection CH 13 due by 10/25 11:30pm |
| 11 | 26-Oct | Conscious Thought, |  | ***Quiz 6 – JDR CH 12*** |
|  | 28-Oct | Unconscious Thought / CH 14 | L24. Measuring Intelligence | Online Reflection CH 14 due by 11/11 11:30pm  Peer Review LR4 due 10/28 |
| 12 | 2-Nov | Student Presentations |  | ***Quiz 7 - CH 13*** |
|  | 4-Nov | Student Presentations |  | LR 5 (labs 20-24) due 11/4 |
| 13 | 9-Nov | Student Presentations |  |  |
|  | **11-Nov** |  |  | Peer Review LR5 due 11/11 |
| **FINAL** | **Nov 18** | **Final exam = Quiz 8 (CH 14)** |  |  |

**Statement on Academic Conduct and Support Systems**

**Academic Conduct**

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards*https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate- sanctions/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct/.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu/ or to the *Department of Public Safety* http://capsnet.usc.edu/department/department-public- safety/online-forms/contact-us. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

**Support Systems**

A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* http://dornsife.usc.edu/ali, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs*

http://sait.usc.edu/academicsupport/centerprograms/dsp/home\_index.htmlprovides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information http://emergency.usc.edu/*will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.