# Psyc 194: Cooperative Research Spring 2015 Syllabus

# Part 1: Course Information

# Instructor Information

Instructor: Dr. Sharon Furtak, Assistant Professor of Psychology

- M.S. & Ph.D. in Behavioral Neuroscience from Yale University
- B.A. in Psychology from the University of Massachusetts, Amherst
- My research interests focus on the neurobiology of emotional learning & memory.

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## **Course Description**

**PSYC 194:** Opportunity for dedicated students interested in graduate school or a career involving research to work cooperatively on a psychological research project under faculty supervision.

Note: Requires permission of instructor and the Department Chair.

## Prerequisite

• Prerequisite: PSYC 2, PSYC 8, PSYC 101 recommended.

**PSYC 294:** Students work cooperatively on a psychological research project under faculty supervision.

Note: Requires permission of instructor and the Department Chair. May be repeated once for credit.

## Textbook & Course Materials

#### **Required Text**

 No required textbook. Other readings will be made available in the SacCT (See Learning Modules).

## Recommended Texts & Other Readings

• There are no additional recommended texts or readings.

### **Course Requirements**

- Internet connection (DSL, LAN, or cable connection desirable)
- Access to SacCT

### Course Structure

This course will consistent of regularly scheduled lab meetings that will cover the readings and topics listed below. Additionally, it is expected that for every 1 unit, the student will be present in lab conducting research for 3 hours per week (i.e. 3 units = 9 hours per week).

## SacCT Access

This course will have readings and materials posted online through a course management system named SacCT. You will use your SacLink account to login to the course from the <u>SacCT login page</u> (https://sacct.csus.edu/). In SacCT, you will access online lessons, course materials, and resources.

To access this course on SacCT you will need access to the Internet and a supported Web browser (Internet Explorer, Firefox, Safari). To ensure that you are using a supported browser and have required plug-ins please run the <u>Check Browser</u> from your SacCT course. Refer to the SacCT Browser Tune-up page for instructions.

## Technical Assistance

If you need technical assistance at any time during the course or to report a problem with SacCT you can:

- Visit the SacCT <u>Student Resources Page</u>
- Review SacCT <u>Student Tutorials</u>
- Visit the SacCT <u>Student FAQ's Web Page</u>
- Submit a <u>SacCT Problem Form</u>

**Important Note:** This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check SacCT for corrections or updates to the syllabus. Any changes will be clearly noted in course announcement or through SacCT email.

# Part 2: Course Objectives

This course will introduce you to the process of conducting research in psychology. The specific area of research will be determined by the expertise of the instructor and includes, but is not limited to: behavioral neuroscience, cognitive psychology, social psychology, developmental psychology, clinical psychology, quantitative psychology, multicultural psychology and organizational psychology. Over the course of the semester, you will be expected to do the following:

- Exhibit understanding of pertinent previous research. Including searching, finding and reading original research publications from reputable scientific journals.
- Display the ability to analyze methodological techniques relevant to the topic of study and apply findings to the current research topic.
- Engage in experimental design and implementation, including developing research materials/protocols, running experiments, collecting data, entering data into data processing programs (Excel, SPSS), and preparing data for analysis.
- Prepare and provide feedback on professional development materials.
- Analyze data in SPSS, write a formal research report, and present research at a Psychology conference or to lab members.
- Comprehend ethical guidelines and concerns for the responsible conduct of research.

You will meet the objectives listed above through a combination of the following activities in this course:

- Attending weekly **lab meetings on Wednesdays from 12-1pm**, reading articles and participating in discussions and activities (see #1 below).
- Completing reading and companion **assignments** before the meeting for which they have been assigned (see #2 below).
- Hands-on **data collection**, including: entering and preparing data (see #3 below).
- Writing a formal **research report** (see #4 below).
- Prepare your curriculum vitae.

## 1. Lab Meetings

The research team will meet once a week on Wednesdays from 12-1pm. It is your responsibility to attend all scheduled meetings. The only acceptable reasons to miss a lab meeting are a documented personal emergency (death of a close family member, car accident, etc.) or a documented physical illness (with a doctor's note). Your grade will be dropped by one letter grade for each unexcused absence.

Excessive and unexcused tardiness (e.g., more than 10 minutes late on 3 separate occasions) will be treated as unexcused absence from meetings.

## 2. Assignments

Research assistants (RAs) will be asked to read a empirical, theoretical, or review article per week for lab meetings. Readings will vary from week-to-week and may include: assigned article via SacCT from the instructor or other lab members and an article relevant to your poster that you will present to the group.

For each articles:

- First careful read of the article, please re-read the article, highlighting the most important aspects.
- Next, please answer the following questions, paraphrasing from your highlighted text:
  - What are the main arguments in the Introduction?
  - What are the hypotheses?
  - How did the authors test their hypotheses?
  - Were their hypotheses supported? Why or why not?
  - What were the strengths and limitations of the study?
  - How can this article be applied to your project specifically, and the work we are doing in lab more generally?

Preparing responses to these questions and **having them available in lab meeting** will help you to participate more effectively in our weekly discussions. Please have them with you at every lab meeting on the assigned article. When it is your turn to present, you will also submit your article and your annotations to SacCT.

#### 3. Data Collection

A few weeks into the semester, we will begin data collection for our research project. Collecting data is a very important aspect of research. Thus, our first few meetings will focus on training on the data collection procedures. Once we begin data collection, each RA will be responsible for scheduling him/herself for 9 hours of research per week. At all times, while engaging in research, the RA will conduct him/herself in a professional manner. This includes both the manner of dress and the interaction with research participants/subjects, community people encountered while engaging in research, and co-workers. This also means arriving approximately 10 minutes early when collecting data in order to prepare. There will be times when no participants or subjects are scheduled. During these times, the RA is responsible for scoring and entering data into the SPSS file on the lab computer/laptop. RAs will treat all data as strictly confidential. No data leaves the lab. Any lost data will result in an automatic F or NC in this course

### 4. Research Reports

All RAs enrolled in 194 are expected to write a short but formal APA research manuscript. The first step is to research the background literature and outline the paper for the project you are working on during the semester. Drafts of the paper will be due every week in the manner outlined below. Each of these assignments will be graded Pass/Fail. Your final grade will be dropped by one letter grade for a Fail on any of these assignments.

### 5. Curriculum Vitae

All RAs enrolled in 194 are expected to prepare their curriculum vitae on the scheduled day. There will be information posted on how to write one.

# Part 3: Topic Outline/Schedule

**Important Note:** Refer to the course calendar for specific meeting dates and times. Activity and assignment details will be explained in detail within each week's corresponding learning module. If you have any questions, please contact your instructor.

- Week 01 (Jan. 28<sup>th</sup>): Orientation & Data collection procedures
  - Review of syllabus, lab etiquette, research methods used in lab for data collection, and ethical concerns.
  - o *Readings:* no readings this week.
  - o Dr. Furtak presents
- Week 02 (Feb. 4<sup>th</sup>): Broad background on neuroanatomy.
  - The hippocampal memory system and the fear circuit.
  - o Readings: Furtak, Wei, Agster, & Burwell 2007
  - Dr. Furtak presents
  - **Due:** Literature review of research topic with a list of 10-15 relevant citations in APA format to read over the semester.
- Week 03 (Feb. 11<sup>th</sup>): Medial Temporal Lobe Involvement in Fear Conditioning to a Discontinuous Stimulus.
  - o Perirhinal involvement in processing emotional relevant stimuli.
  - o *Readings:* Kent & Brown 2012
  - o Dr. Furtak presents
  - **Due:** Summary of 3 articles from citation list.
  - Week 04 (Feb. 18<sup>th</sup>): Perirhinal Cortex and Fear Extinction.
    - Thesis proposal presentation.
    - o **Readings:** TBA
    - o Student presents
    - o **Due:** Summary of 3 articles from citation list.
- Week 05 (Feb. 25<sup>th</sup>): Sensory preconditioning as a model for temporal sequence learning in fear conditioning.
  - Sensory pre-conditioning: a hypothesized role for perirhinal cortex.
    - o *Readings:* Allen, Morris, etal 2014
    - o Student presents
    - **Due:** Summary of 3 articles from citation list.
- Week 06 (Mar. 4<sup>th</sup>): Neurobiology of Fear Conditioning: the Perirhinal Cortex.
  - The role of the perirhinal cortex in fear acquisition.
  - o **Readings:** TBA
  - o Student presents
  - **Due:** Summary of 3 articles from citation list.

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- Week 07 (Mar. 11<sup>th</sup>): Neurobiology of Fear Conditioning: the Amygdala.
  - The role of amygdala in fear acquisition.
  - o **Readings:** TBA
  - o Student presents
  - **Due:** Outline of Introduction to APA paper.
- Week 08 (Mar. 18<sup>st</sup>): Mid-semester briefings.
  - Everyone conducting research will prepare a 5 minute summary of what they have been doing this semester, technical problems they have encountered, and any resulting data.
  - o *Readings:* No readings for this week.
  - **Due:** Draft of Introduction to APA paper.
- Week 09 (Mar. 25<sup>th</sup>): CANCELLED SPRING BREAK
  - o Journal Club canceled
- Week 10 (April 1<sup>st</sup>): Prefrontal Cortex Modulates Fear Extinction.
  - The role of prefrontal cortex in fear extinction.
  - o **Readings:** TBA
  - o Student presents
  - **Due:** Draft of Methods to APA paper.
- Week 11 (April 8<sup>th</sup>): Perirhinal Cortex in Object-In-Place Discriminations.
  - The many talents of perirhinal cortex.
  - o **Readings:** TBA
  - o Student presents
  - **Due:** Draft of Results to APA paper.
- Week 12 (April 15<sup>th</sup>): How to prepare your CV.
  - o *Readings:* two articles on SacCT regarding how to write a CV
  - o Dr. Furtak presents
  - **Due:** 3 copies of your CV should be printed & brought to journal club.
- Week 13 (April 22<sup>nd</sup>): DREADDS, what are they and why do we care?
  - o *Readings:* TBA
  - o Dr. Furtak presents
  - **Due:** Outline of Discussion to APA paper.
- Week 14 (April 29<sup>th</sup>): Rodent ultrasonic vocalizations and its neurocircuitry.
  - o Alarm cries and rat laughter.
  - o *Readings:* Brudzynski, 2013
  - o Dr. Furtak presents
  - **Due:** Draft of Discussion to APA paper.
- Week 15 (May 6<sup>th</sup>): Summary of progress on projects for the semester.
  - o *Readings:* No readings.
  - o Students presents
  - o **Due:** Final paper due.

# Part 4: Grading Policy

### Graded Course Activities

Visit the **Assignments** link in SacCT for details about each assignment listed below. (See Part 4 for more information about accessing tools and activities).

Points	Description	
20	1. Lab Meetings: You must attend each meeting.	
20	<ul> <li>Unexcused absence results in a 5 pt deduction.</li> <li>Assignments: Must be present at lab meeting and shown to PI. Article assignments will be graded Pass/Fail. "Fail" on an assignment will result in a 5 pt deduction.</li> </ul>	
20	3. Data collection: If at any time an RA does not appear to a research time for which he/she has been scheduled, and has not adequately notified me and the other RAs to seek coverage, he/she will automatically receive a 10 pt deduction. Any lost data will result in an automatic F in this course.	
20	4. Research Report: Full APA style paper.	
20	5. Curriculum Vitae	
100	Total Points Possible	

## Late Work Policy

Late submissions will be penalized such that three late submissions will count as the equivalent of a failed paper. Your grade will be dropped by one letter grade for each Fail if you are enrolled in 194.

Be sure to pay close attention to deadlines—there will be no make up assignments or quizzes, or late work accepted without a serious and compelling reason and instructor approval.

## Viewing Grades in SacCT

Points you receive for graded activities will be posted to the SacCT Grade Book. Click on the My Grades link on the left navigation to view your points.

Online grades will be updated each time a grading session has been complete—typically 1 week following the completion of an activity. You will see a visual indication of new grades posted on your SacCT home page under the link to this course.

# Letter Grade Assignment

Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

Letter Grade	Percentage	Performance
А	93-100%	Excellent Work
A-	90-92%	Nearly Excellent Work
B+	87-89%	Very Good Work
В	83-86%	Good Work
В-	80-82%	Mostly Good Work
C +	77-79%	Above Average Work
С	73-76%	Average Work
C-	70-72%	Mostly Average Work
D+	67-69%	Below Average Work
D	60-66%	Poor Work
F	0-59%	Failing Work

**Important note:** For more information about grading at Sac State, visit the academic policies and grading section of the university catalog.

# Part 5: Course Policies

## Participation

Students are expected to participate in all online activities as listed on the course calendar. Unexcused absence results in a 5 pt deduction.

### **Build Rapport**

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

### Complete Assignments

All assignments for this course will be submitted electronically through SacCT unless otherwise instructed. Assignments must be submitted by the given deadline or special permission must be requested from instructor *before the due date*. Extensions will not be given beyond the next assignment except under extreme circumstances.

All discussion assignments must be completed by the assignment due date and time. Late or missing discussion assignments will effect the student's grade.

## Understand When You May Drop This Course

It is the student's responsibility to understand when they need to consider disenrolling from a course. Refer to the Sac State Course Schedule for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family.

## Incomplete Policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if there is a documented medical reason. All incomplete course assignments must be completed within 1 year.

#### Inform Your Instructor of Any Accommodations Needed

If you have a documented disability and verification from the <u>Office of</u> <u>Services to Students with Disabilities</u> (SSWD), and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the

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student's responsibility to provide documentation of disability to SSWD and meet with a SSWD counselor to request special accommodation *before* classes start.

SSWD is located in Lassen Hall 1008 and can be contacted by phone at (916) 278-6955 (Voice) (916) 278-7239 (TDD only) or via email at <u>sswd@csus.edu</u>.

### Commit to Integrity

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

### Sac State's Academic Honesty Policy & Procedures

"The principles of truth and honesty are recognized as fundamental to a community of scholars and teachers. California State University, Sacramento expects that both faculty and students will honor these principles, and in so doing, will protect the integrity of academic work and student grades."

Read more about Sac State's <u>Academic Honesty Policy & Procedures</u>

### Definitions

At Sac State, "**cheating** is the act of obtaining or attempting to obtain credit for academic work through the use of any dishonest, deceptive, or fraudulent means."

**"Plagiarism** is a form of cheating. At Sac State, "plagiarism is the use of distinctive ideas or works belonging to another person without providing adequate acknowledgement of that person's contribution."

Source: Sacramento State University Library

**Important Note:** Any form of academic dishonesty, including cheating and plagiarism, may be reported to the office of student affairs.

**Course policies are subject to change.** It is the student's responsibility to check SacCT for corrections or updates to the syllabus. Any changes will be posted in SacCT.