

Syllabus

COGS 14A: Intro to Research Methods

<http://quote.ucsd.edu/creel/cogs14a>

Basic information

Time: Tue & Thu 2:00pm-3:20pm

Place: Warren Lecture Hall 2005

Professor: Sarah C. Creel <screel at ucsd dot edu>

Office: Cog Sci 167

Office hours: Tue 12-1, Wed 11-12, or by appointment

Teaching Assistant: Parla Buyruk <pbuyruk at ucsd dot edu>

Office hours: CSB 235, Fri 11-12 or by appointment

Teaching Assistant: Reina Mizrahi <rmizrahi at ucsd dot edu>

Office hours: CSB 237, Wed 5-6 or by appointment

Instructional Assistant: Qi Leng <qleng at ucsd dot edu>

Office hours: CSB 114, Mon 2-3, or by appointment

Instructional Assistant: Lauren Tominac <ltominac at ucsd dot edu>

Office hours: [Audrey's](#), Tue 3:30-4:30, or by appointment

Sections:

913245	LA	Mon	11:00a-11:50a	CSB 005
913246	LA	Wed	1:00p-1:50p	WLH 2207
913247	LA	Wed	2:00p-2:50p	WLH 2207
913248	LA	Fri	12:00p-12:50p	CSB 004

Final exam:

Thursday 12/14/2017 3:00pm-5:59pm

Textbook:

Schweigert, W. A. (2012). *Research methods in psychology: A handbook* (3rd ed.). Waveland: Long Grove, IL.

Selected articles to be posted on this web site under Schedule.

Course goals:

- Understand how research is **conducted** and **evaluated** in cognitive science
- Distinguish **experiments vs. observations**
- Understand when you can and can't infer **causality**

- Gain fluency with sources for **finding research articles** and **data resources**
- Grasp basic **types of data** and how they can be analyzed
- Be able to identify basic types of **research designs**
- Know situations when certain research designs are **more/less appropriate**
- Become sensitive to **potential pitfalls** (confounds, nuisance variables, participant attrition, carryover effects) of different types of research

Course policies:

- Assignments are due at the beginning of class. Late work will be penalized.
- Readings are required. If expense is an issue, please try to find someone to share the book with or take a look for books on reserve in the library.
- If you have an emergency that prevents you from turning in an assignment, contact Professor Creel as soon as possible to make alternative arrangements.
- Podcasts (if provided) and posted lecture slides **are not intended as a substitute for attending lectures** and engaging in the class.
- If you miss a lecture, it is your responsibility to consult one of your fellow students to get notes.
- Academic honesty is of the greatest importance. See guidelines below.
- Please refrain from using electronic devices for any non-class purpose. It is disrespectful and **distracting to other students** to tweet, check Facebook, etc. in the middle of a course ([Sana, Weston, & Cepeda, 2013, Computers and Education](#)). If this becomes a persistent problem, expect to be called on to share the contents of your device!

Grading

Midterm 1: 20%

Midterm 2: 20%

Final (semi-cumulative): 30%

Ten weekly on-line quizzes: 20% (2% each)

Participation (class and section): 10%

Extra credit (up to 4 points on final grade):

[SONA](#)–Cog Sci faculty experiments (up to 4 exp. hours at 1 point each)*

*If you don't fit criteria for any experiments, see me for an alternate assignment.

Grades will be assigned as follows:

A	93-100
A-	90-92
B+	86-89
B	83-85
B-	80-82
C+	76-79
C	73-75
C-	70-72
D	60-70
F	0-59

(continued below)

Academic honesty

The crux of academic integrity: Your work should be your own. If you turn in something that is not indicative of your performance, you are doing a disservice to yourself in failing to actually learn the material. Relatedly, if you do someone else's work for them, you are allowing them not to learn material. At a more practical level, you are doing something that, *if caught, instructors are obligated to report to your college*. This is not fun for anyone, including the professor and TAs!!

Overall, you should never copy someone else's ideas or work.

If you're not sure, just ask us! It's better to ask now than to risk trouble later. Just asking won't get you in trouble.

Examples of things that are permissible:

- Studying in groups. (In fact, this is often a good strategy!)
- Talking about articles or class material in groups.
- Referencing material in the book (or an article) and noting that you have done so.

Examples of things that are NOT permissible:

- Looking at someone else's exam.
- Using materials on an exam that are not permitted.
- Writing papers in groups. This includes taking someone else's paper (or parts of it) and quoting verbatim, or changing a small number of words. The work you turn in should be your own interpretation and your own thoughts.
- Writing a paper for someone else.
- Copying someone else's paper.
- Referencing material in article/book without noting that you have done so.
- Quoting a large proportion of your paper from the article (more than 5-10% of your paper directly quotes the original author). While you are giving credit to the author, this kind of "quote abuse" (Carver, 2010, personal communication) is counter to the purpose of written assignments, which is to **demonstrate that you understand the material by evaluating it in your own words.**

Schedule

Week	Topic	Readings	Assignments
Sept. 28	Introduction and Welcome		
Oct 3	Introduction; Research Ethics	Ch. 1-2	Pretest
Oct 10	Hypothesis testing; Research resources	Ch. 3-4	Quiz
Oct 17	Research resources (cont'd); Statistics in research	Ch. 5	Quiz, Midterm 1 (Thu)
Oct 24	Between-groups designs	Ch. 6	Quiz
Oct 31	Within-subjects designs	Ch. 7	Quiz
Nov 7	Factorial designs	Ch. 9	Quiz
Nov 14	Quasi-experiments	Ch. 8	Midterm 2 (Tue) , Quiz
Nov 21	Observational studies, ethnography	Ch. 10	Quiz
Nov 28	Single-subject designs	Ch. 12	Quiz
Dec 5	Big data	Ch. 13	Posttest
Dec 14	Final exam, 3-6pm	Review TBA	Final Exam