

PSYC 5388: Introduction to Experimental Design
Sam Houston State University
Spring 2018

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Time: Wednesday, 9:00 – 11:50 AM
Class Location: PSC
Office Hours: By Appointment (Mon 1-4)
Department: Psychology & Philosophy

Course Overview:

This course teaches students skills that will allow them to design their own scholarly research projects. Students are encouraged to understand that research design often requires finding the right balance between advantages and disadvantages of specific methods. Students will become familiar with the current scholarly literature regarding research design and will write an independent research proposal that can serve as a thesis or dissertation proposal. This course will also provide you with the skills and experience needed to *consume* psychological research. Finally, this course will acquaint you with some of the current debates within the field regarding experimental design. This course is designed to give you opportunity to put the information we discuss to immediate use through two types of assignments:

- 1) Regular homework assignments (typically reading and responding relevant articles).
- 2) One research proposal, which you will gradually develop throughout the course.

Required Readings:

Anastasi, J. S., & Lee, J. R. (2016). *Research Methods in Psychology*. Dubuque, IA: Kendall Hunt Publishing Company. ISBN: 978-1-4652-9666-5.

Recommended Text:

Shadish, W. R., Cook, T. D., & Cambell, D. T. (2001). *Experimental and quasi-experimental designs for generalized causal inference*. Boston: Houghton Mifflin.

GRADING PERCENTAGES

Final Exam	=	20%
Research Proposal	=	30%
Homework	=	30%
Participation	=	20%

GRADING CUT-OFFS

above 89.4	=	A
79.5 - 89.4	=	B
69.5 - 79.4	=	C
below 69.4	=	F

Final Exam

The final, cumulative exam will be a mixture of multiple choice questions and fill-in-the-blank/short answer.

Research Proposal

You will select a research topic that interests you at the beginning of the course, and will develop a research proposal, including, but not limited to, a brief background/significance, proposed methods, and references. If you have access to data related to your proposed project, I *strongly* encourage you to include results and discussion sections in your final paper as well, as this will help you greatly in the long run. The proposal can be a maximum of ten (10) double spaced pages (excluding references). The proposal must be in APA format.

Note: This may prove to be very similar to your subsequent thesis or dissertation proposal. HOWEVER, this paper cannot simply be a rehashing of a previously proposed thesis or dissertation. In other words, you need to be generating new ideas here--which you can then discuss with your supervisor to use *in the future*). If you are planning on writing up an “existing data” proposal for your thesis/dissertation, write *this* proposal as if you were collecting the data yourself.

Homework: There will be homework exercises, due at the beginning of 13 of the classes. They each count for 3 points (and a total of 30 points toward your final grade), so three assignment of your choice may be skipped. Specifics for each assignment will be listed on Blackboard.

Participation: Active participation is required, which means attendance is required. Please inform me of necessary absences in advance to avoid loss of points.

Make-up Policy: Assignments that are handed in late will have 10% subtracted for each day (or portion of a day) that they are late. In other words, if a paper is handed in 1 hour after class 10% will be subtracted from the grade for that paper.

Tentative Course Schedule

Week	Date	Topic	Assignments	A&L Ch	Progress on Proposal
1	Jan 17	<i>No Class, Snow Day!</i>	<i>None</i>	-	<i>None</i>
2	Jan 24	Course Overview + A Brief Stats Refresher	Free writing on topics of interest & Reading on what's been done	8	In class narrowing of research question
3	Jan 31	<i>No Class, Out of Town</i>	CITI Training Certificate	-	Submit research question
4	Feb 7	Developing the Research Question	Response to: Nelson, Simmons, & Simonsohn (2018) Science Friday Except	11	Submit literature review
5	Feb 14	Research Proposal & Ethics	Response to: Prospectus/specific aims examples	3	Submit 1 page research prospectus for instructor review
6	Feb 21	Null Hypothesis Significance Testing	Response to: NHST articles (TBD)	9	<i>*get back prospectus with instructor feedback</i>
7	Feb 28	Case Studies & Other Observational Research	Response to: 1 case study <i>or</i> observational study of your choice	4	Submit revised prospectus for instructor review
8	Mar 7	Quasi-Experimental & Correlational Designs	Response to: Peer reviews of research proposal and article	5	Submit intro for peer review
9	Mar 14	<i>No Class, Spring Break!</i>	<i>none</i>	-	<i>*spring break!</i>
10	Mar 21	True Experiments: Between Subjects	Response to: 1 between subjects article of your choice	6	Submit your review of your peer's intro
11	Mar 28	True Experiments: Within Subjects	<u>Write up</u> Within/Between subjects results from stats	7	Submit response to peer review + methods for peer review
12	Apr 4	More on RCTs	Response to: RCT Article(s) (TBD)	-	Submit your review of your peer's methods
13	Apr 11	Mediation & Moderation	Response to: Hayes Med/Mod Article (PROCESS)	-	Submit response of peer reviews + Complete research proposal + Preregistration Form for instructor review
14	Apr 18	Missing Data; How to Publish	Write med/mod stats, create figures, explain to grandma	13	
15	Apr 25	Presenting Research Proposals (Quickshot Presentations – 1 point) + Remaining material	Provide constructive feedback to student presenters	-	Quickshot Presentations following “3 Minute Thesis” format
16	May 2	Final Exam	N/A	-	None!

Academic Dishonesty (<http://www.shsu.edu/dotAsset/728eec25-f780-4dcf-932c-03d68cade002.pdf>):

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action (Code of Student Conduct and Discipline, Section 5.3, as printed in Student Guidelines). The university and its official representatives, acting in accordance with Subsection 5.32, may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

- **Cheating** includes:
 - Copying from another student's exam, assignment, or computer files, data listings, and/or programs.
 - Using materials not authorized by the instructor during an exam or other assignment.
 - Collaborating with another student for any assignment or exam without authorization from the instructor.
 - Using, transporting, or possessing, in whole or in part, contents of an unadministered test.
 - Substituting for another student, or permitting another student to substitute for oneself, to take an exam or complete any assignment.
 - Submitting as one's own work any assignment prepared by another individual or firm.
- **Plagiarism** means the appropriation of another's work or idea and the unacknowledged incorporation of that work or idea into one's own work offered for credit. If you would like to use someone else's ideas, summarize their work *USING YOUR OWN WORDS* and then *CITE THEIR WORK* using the accepted American Psychological Association's (APA) Guidelines.
- **Collusion** means the unauthorized collaboration with another person in preparing work offered for credit.

Classroom Rules of Conduct (<https://netreg.shsu.edu/mirror/codeofconduct.html>):

According to Section 5 of the Student Handbook, students are expected to assist in maintaining a classroom environment that is conducive to learning. Disruptive behavior will not be tolerated; this includes, but is not limited to, cell phones or other electronic devices. If you must accept a call during class, turn your ringer off and sit next to an exit door so you can slip out without disrupting others. Students who are disruptive to the class may be dismissed from the classroom for inappropriate behavior and will not be allowed to hand in any assignments due for the remainder of that class. Additionally, students may be withdrawn from the course for repeated disruptive behavior.

Any use of a telephone or texting device during a test period is prohibited. These devices should not be present during a test or should be stored securely in such a way that they cannot be seen or used by the student. Even the visible presence of such a device during the test period will result in a zero for that test. Use of these devices during a test is considered *de facto* evidence of cheating and could result in an additional charge of academic dishonesty.

Religious Holy Days (<http://www.shsu.edu/dotAsset/0953c7d0-7c04-4b29-a3fc-3bf0738e87d8.pdf>):

Students have the responsibility of notifying the professor of each scheduled class day that the student will be absent due to a religious holy day. *This must be done no later than the 15th class day.* Students who are absent from class for observance of a religious holy day will be allowed to take an examination or complete an assignment scheduled for that day within one week of returning to class. However, any in-class assignments cannot be made up, but will not count against their other assignment average.

Notice to Persons with Disabilities (<http://www.shsu.edu/dotAsset/9edd8433-cad5-40d1-b4bf-6a91b08f90e4.pdf>):

It is the policy of Sam Houston State University that no individuals otherwise qualified shall, solely by reason of their disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic program activity. Students with a disability that may affect their academic performance are expected to arrange for a conference with the instructor as soon as possible. This is done so that appropriate strategies can be considered to ensure participation and achievement opportunities are not impaired since there will be no retroactive accommodation. Accommodations will be made **only** to those people who have documented the disability with the Americans with Disabilities Act (ADA). Contact the Office of Services for Students with Disabilities in the SHSU Lee Drain Annex (phone: 936-294-3512) to request accommodations.