

## **J395 Designing Experiments Fall 2013 – unique #07915**

**Seminar:** Wednesday 12-3 p.m. in CMA 3.134  
**Professor:** Associate Prof. Renita Coleman, Ph.D.  
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**Office Hours:** Wednesdays 10-11 am, Fridays 1-3 p.m. and by appointment.  
Make appointments using my Doodle calendar,  
<http://doodle.com/5u5t2u7ue67fqi3q>  
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### **Required:**

Shadish, W.R., Cook, T. D., & Campbell, D.T. (2002). *Experimental and Quasi-Experimental Designs for Generalized Causal Inference* Belmont, CA: Wadsworth.

Readings posted on Blackboard, handed out during class, or available online.

### **Recommended:**

Bausell, R. B. (1994). *Conducting Meaningful Experiments: 40 Steps to Becoming a Scientist*. Los Angeles: Sage.

### **Course Overview**

If you are interested in causality rather than just correlation, and testing hypotheses for cause and effect, then this class is for you. Experiments are considered advanced research methods, so a basic research methods class and a theory class are pre-requisites. That said, this course won't include arcane language or assume you know anything about experiments or statistics used to analyze them already; you should have a basic knowledge of the scientific method, and have conducted at least one study of any kind (content analysis, survey, etc.). Knowledge of theory is necessary because experiments are used to test hypotheses posed through some theoretical framework, not just hunches.

This class is different from most other experimental design courses in that it focuses on methodological and design issues in planning an experiment rather than on analyzing the data with various statistics. The class *will* briefly cover that aspect, but the focus is mainly on enabling you to have a fully designed experiment, which you can then carry out as a research paper, thesis, or dissertation proposal. Rather than just reading about controlled experiments and field experiments, single factor experiments and factorial designs, manipulation checks, etc., we will walk through the steps in deciding which of these elements is best used in the creation of your own experiment, including making the stimuli and questionnaire. By the end of the semester you will be ready to submit an application to the IRB. The inner workings of the statistics, formulas, and calculating them by hand will not be part of this class; you should take a traditional experimental design class if you want to learn that.

This class is not the same as the experimental design classes from the psychology department; it is a complement to those, however. If you are looking to become a qualified experimentalist, take this course and one in psychology too.

This class meets once a week for 3 hours. The first half of the class will cover the readings and theory of experimental issues; the second half of the class will be more like a “lab” where we work on designing your own experiment.

**Objectives:**

- 1) To develop an understanding of experimental methods and major experimental designs, and think critically about their proper application in journalism and communication research.
- 2) Write hypotheses that can be tested using experiments.
- 3) Be able to develop different types of experimental and quasi-experimental designs.
- 4) Apply knowledge of ethical standards to an experiment and be able to submit an application to the IRB.

**Course Requirements & Expectations**

Your grade will be based on attendance and participation, papers analyzing the readings, weekly assignments, and a final individual paper that represents a fully designed and ready-to-be-conducted experiment. Assignments must be turned in at the beginning of class on the date they are due. Late assignments will not be accepted and will be given a grade of zero.

**University Policy on Holy Days:** A student who misses classes for the observance of a religious holy day should inform the instructor as far in advance of the absence as possible so that arrangements can be made to complete an assignment within a reasonable time after the absence.

**Assignments:**

***Class Attendance and Participation***

You will be expected to come to class regularly and contribute to the learning of others in some significant way. Discussion is the most obvious way to contribute to the learning of others, provided your comments are thoughtful and informed. You will write papers on the readings (below) to assist you with this. If you are one of the painfully shy, please find other ways to contribute; bringing in examples and material related to the topic of the day, for example. Be creative and find a way. The value of this class is achieved primarily through attendance; you will not be able to achieve the course goals on your own. This can only be accomplished with your physical presence; if you are unfortunate enough to be sick a substantial portion of the semester, you will need to take this class at another time. The university allows excused absences for medical illnesses with written excuses, religious holy days, official extracurricular activities, and military service, but not for a large number of

class meetings. Respect for others' feelings, beliefs and values are essential to the success of the class, so please be considerate of your classmates' different backgrounds and experiences as you discuss various points of view.

### ***Papers on the Readings***

One-page "reflection" or "thought" papers that analyzes and synthesizes some idea in one or more of the readings. Bring these to class with you; do not email to me or send with a classmate. These are tied to your attendance; they are not accepted if you do not attend. There are 10 days of assigned readings (so far); you can choose which 5 you want to do the papers on, so missing a class or two should not pose a problem. One purpose of these papers is to give you the opportunity to think about the things in the readings so that you have something insightful to say during class discussion (see above). There is a great amount of latitude in what you write about for your reflection paper; however, the overarching goal is for you to generate thoughtful insights about the readings. You may critique them, or write about what you questioned as you read the text or articles. You may relate ideas from two or more readings, or concentrate on a specific part of one article. Do not summarize the readings. Pick one point or topic and write the whole page on it; you will get a better grade for one page in depth on one subject than 2 superficial pages on 3 subjects. Think of it as a short "discussion question" that expands your ability to think critically as higher education is supposed to do. These papers will be graded on quality, with more points awarded for the most thought-provoking writings.

### ***Weekly Assignments***

There are 8 of these that build toward your final paper including your 3 ideas, literature review, hypotheses, sampling strategy, stimuli, manipulation check, IRB proposal and questionnaire. These weekly assignments are your opportunity to get feedback on your experimental design prior to submitting the final paper.

### ***Final Experimental Design Paper***

This represents the culmination of the entire semester's work. It will be a full-blown research paper on an experiment, up to the results section. It should be suitable for submission to a conference once you have collected the data, written up the results, discussion and conclusion. This part of the paper, 15 pages, will include the introduction, theory and literature review, hypotheses, and a completed methods section. We will read many experiments that have been published in journals for you to model yours after. While the weekly assignments build toward the final paper, this assignment will not be just stringing them all together in one document; this will be expected to be much higher quality than the weekly assignments. It needs to be clearly and concisely written, suitable for acceptance to a major conference after the subjects have been run and last half of the paper written.

### **Grading Procedures:**

The weight of assignments will be as follows:

Class attendance and participation	15%
Papers on the readings (5):	20%

Weekly assignments (8):	25%
Final experimental design paper:	40%

**Grade scale:**

I do not use plus/minus grading. Grades are not rounded up.

A 100-90

B 89.99-80

C 79.99-70

D 69.99-60

F 59.99-0

**Grade categories are defined as:**

A - The work is intellectually rigorous, shows an exceptional understanding of the material and is error free. Ready for publication with minor revisions.

B - The work illustrates a good effort at understanding the material and has few errors. A revise-and-resubmit.

C - The work indicates little progress toward gaining an understanding of the material and has substantial errors. Reject.

F - The work shows no understanding of the assignment or was not completed in a timely manner. The editor does not even send it out for review.

***Turning in Assignments***

Assignments are to be printed out and turned in at the beginning of the class during which they are due unless otherwise specified. Please do not submit assignments by email (unless otherwise instructed) as these have a tendency to get lost. Late assignments and those not properly turned in will not be accepted and will result in a grade of zero. There are no make-ups. Exceptions: University-approved excused absences for medical illnesses with written excuses, religious holy days, official extracurricular activities, and military service. If you have a planned absence, turn in assignments before the due date.

***University Honor Code***

The University defines academic dishonesty as cheating, plagiarism, unauthorized collaboration, falsifying academic records, and any act designed to avoid participating honestly in the learning process. Scholastic dishonesty also includes, but is not limited to, providing false or misleading information to receive a postponement or an extension on a test, quiz, or other assignment, and submission of essentially the same written assignment for two courses without the prior permission of the instructors. *You must always cite words and ideas that are not your own.* You must not self-plagiarize. By accepting this syllabus, you have agreed to these guidelines and those on the Student Judicial Services website and must adhere

to them. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. *Visit the Student Judicial Services Web site:* <http://deanofstudents.utexas.edu/sjs>.

### ***Students with Disabilities***

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. A documented disability statement from Services for Students with Disabilities must be provided to the instructor in the first week of class and all regulations of SSD followed. For more information contact the Services for Students with Disabilities at 471-6259 (voice) or 232-2937 (video phone).

### ***Blackboard***

In this class I use Blackboard—a Web-based course management system with password-protected access at <http://courses.utexas.edu> —to distribute course materials, to communicate and collaborate online, and to post grades, among other things. You can find support in using Blackboard at the ITS Help Desk at 475-9400, Monday through Friday, 8 a.m. to 6 p.m.

## SCHEDULE

*\* Subject to change*

<p><b>Week 1</b></p> <p><b>AUG 28 – Introduction. History of Experiments.</b></p> <p><b>Assignment due next week.</b> 3 ideas for an experiment you would like to conduct. Clear and concise statement of the problem, why it is important to scholars, practitioners, society. 250 words per idea.</p>
<p><b>Week 2</b></p> <p><b>SEPT 4 – Meet the Grads. BMC 5.208</b></p> <p><b>Due Today:</b> 3 ideas</p>
<p><b>Week 3</b></p> <p><b>SEPT. 11 – Overview of experiments. Theory and Literature.</b></p> <p><b>Read:</b> SC&amp;C Ch. 1; Thorson, Experimental Methodology; Stevens, Negative Advertising; Bausell Intro, Ch. 1&amp;2 (optional)</p> <p><b>Assignment Due next week:</b> Revise 1 idea, add 5 pages of theory and literature</p>
<p><b>Week 4</b></p> <p><b>SEPT. 18 – Validity. Hypotheses.</b></p> <p><b>Read:</b> SC&amp;C Ch. 2; Bausell Ch. 3 &amp; 4 (optional); Coleman, Race and Ethical Reasoning</p> <p><b>Due Today:</b> Intro, theory and lit, 6-7 pages.</p> <p><b>Assignment Due next week:</b> 3+ Hypotheses.</p>
<p><b>Week 5</b></p> <p><b>SEPT. 25 – More Validity. Effects Sizes. Sampling</b></p> <p><b>Read:</b> SC&amp;C Ch. 3; Coleman, Kids; Courtright, Rationally Thinking; Lang, The Logic of; Basil, The Use of Students.</p>

**Due Today:** 3+ Hypotheses

**Assignment due next week:** Write up sampling strategy for your study.

**Week 6**

**OCT. 2 – Measurement. Stimuli design.**

**Read:** Bausell Ch. 5 (optional); Coleman, Public Life.

**Due Today:** Sampling strategy

**Assignment due in 2 weeks (Oct. 9):** Design your stimuli

**Week 7**

**OCT. 9 – Random Assignment. Factorial Designs.**

**Read:** SC&C Ch. 8; Coleman, Effects of Visuals; Ho, Social Psychological; Bausell Ch. 6 (optional)

**Due Today:** None

**Assignment:** None

**Week 8**

**OCT. 16 – Manipulation checks, pretests, pilot studies.**

**Read:** SC&C Ch. 5; Arpan, Protest photos; Bausell Ch. 7 (optional)

**Due today:** Stimuli

**Assignment due next week:** Write manipulation check.

**Week 9**

**OCT. 24 – Ethics**

**Read:** SC&C Ch. 9

**Due Today:** Manipulation check

**Assignment due next week:** Prepare IRB proposal for your manipulation check

**Week 10**

**OCT. 30 – Quasi Experiments. Repeated measures.**

**Read:** SC&C Ch. 4 & 6; Coleman, Creativity; Aday; Posttest only; Coleman, Repetition Factor.

**Due Today:** IRB proposal

**Assignment due in 2 weeks (Nov. 13):** Design your questionnaire

**Week 11**

**NOV. 6 – Treatment issues**

**Read:** SC&C Ch. 10; Bausell Ch. 8 (optional); TBA.

**Week 12**

**NOV 13 – Analyzing Data**

**Read:** Miller, Examining the Mediators; Schmierbach, A Little Bird

**Due Today:** Questionnaire

**Assignment:** TBA

**Week 13**

**NOV. 20 – Writing up results.**

**Read:** TBA

**Week 14**

**NOV. 27 – THANKSGIVING**

**No class**



**Week 15**

**DEC. 4 - Individual Presentations**

**Due Today: Final experiment paper**