

## Experimental Design (MEJO 862) Fall 2023

<b>Meeting time &amp; location</b>	Th 2:00PM - 4:45PM Carroll - Rm 0338 Should the need arise to hold sessions remotely, we will use Zoom
<b>Instructor &amp; contact info</b>	Dr. Maria Leonora (Nori) Comello (she/her/hers) comello@email.unc.edu (Best way to reach me) (919) 928-2440 cell
<b>Office hours &amp; location</b>	Tue, 1:30 – 2:30PM, and at other times by arrangement Carroll 359, or online via Zoom

### Course Overview

Welcome to the Experimental Design Seminar! This course will focus on conceptual and methodological issues to enable you to design and conduct an experiment. Topics we will cover include different types of designs; experiment settings (lab, field, survey-embedded); conceptual understanding of mediation and moderation; stimuli/instrument development; as well as ethical issues and current controversies. Rather than just reading about these topics, we will walk through the steps in creating your own experiment, including submitting an IRB application. Ideally, by the end of the semester, you will have run your own experiment, which you could then submit to conferences with late fall deadlines. It is important to note that this class differs from other experimental design courses that deal primarily with analyzing data with various statistical software. While we will cover this aspect briefly, the inner workings of statistical tests and formulas will not be part of this class. If you are interested in deep dives on this aspect, you should take a stats-focused experimental design class to complement the conceptual knowledge gained in this course. Classroom activities will include lecture, group work, and independent work.

### Readings

#### Required

- Coleman, R. (2019). Designing Experiments for the Social Sciences: How to Plan, Create, and Execute Research Using Experiments. Los Angeles: Sage.
- Readings posted on Canvas. For the Scharrer & Ramasubramanian chapters, go to Course Reserves.

#### Optional (highly recommended for those planning a career with experiments)

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

### ACEJMC competencies

The Accrediting Council on Education in Journalism and Mass Communications (ACEJMC) requires that, irrespective of their particular specialization, all graduates should be aware of certain core values and competencies. This course is particularly relevant to the following competencies:

- Demonstrate an understanding of the history and role of professionals and institutions in shaping communications;
- Understand concepts and apply theories in the use and presentation of images and information;
- Think critically, creatively and independently;
- Conduct research and evaluate information by methods appropriate to the communications professions in which they work;

- Write correctly and clearly in forms and styles appropriate for the communications professions, audiences and purposes they serve;
- Apply tools and technologies appropriate for the communications professions in which they work.

The full list of competencies is available here:

<http://www2.ku.edu/~acejmc/PROGRAM/PRINCIPLES.SHTML#vals&comps>

### **Honor code**

I expect that all students will conduct themselves within the guidelines of the University honor system (<http://honor.unc.edu>). All academic work should be done with the high levels of honesty and integrity that this University demands. You are expected to produce your own work in this class. If you have any questions about your responsibility or your instructor's responsibility as a faculty member under the Honor Code, please see the course instructor or Associate Dean for Graduate Studies Dr. Lucinda Austin, or you may speak with a representative of the Student Attorney Office or the Office of the Dean of Students.

### **Accessibility resources and services**

The University of North Carolina at Chapel Hill facilitates the implementation of reasonable accommodations, including resources and services, for students with disabilities, chronic medical conditions, a temporary disability or pregnancy complications resulting in barriers to fully accessing University courses, programs and activities. Accommodations are determined through the Office of Accessibility Resources and Service (ARS) for individuals with documented qualifying disabilities in accordance with applicable state and federal laws. See the ARS Website for contact information:

<https://ars.unc.edu> or email [ars@unc.edu](mailto:ars@unc.edu).

### **Counseling and Psychological Services**

CAPS is strongly committed to addressing the mental health needs of a diverse student body through timely access to consultation and connection to clinically appropriate services, whether for short or long-term needs. At the Hussman School, we are fortunate to have Carolyn Ebeling as the CAPS embedded counselor in-house. Carolyn offers a warm and non-judgmental space for undergraduate and graduate students to explore their thoughts and feelings. Email them at [cebeling@email.unc.edu](mailto:cebeling@email.unc.edu) to get connected. You may also explore resources at the CAPS website (<https://caps.unc.edu/>) or visit their facilities on the third floor of the Campus Health Services building for a walk-in evaluation to learn more. Also visit the Heels Care Network for additional mental-health and self-care resources: <https://care.unc.edu/>.

### **Title IX**

Any student who is impacted by discrimination, harassment, interpersonal (relationship) violence, sexual violence, sexual exploitation, or stalking is encouraged to seek resources on campus or in the community. Reports can be made online to the EOC at <https://eoc.unc.edu/>. Please contact the University's Title IX Coordinator ([titleixcoordinator@unc.edu](mailto:titleixcoordinator@unc.edu)), Report and Response Coordinators in the Equal Opportunity and Compliance Office ([reportandresponse@unc.edu](mailto:reportandresponse@unc.edu)), Counseling and Psychological Services (confidential), or the Gender Violence Services Coordinators ([gvsc@unc.edu](mailto:gvsc@unc.edu); confidential) to discuss your specific needs. Additional resources are available at <https://safe.unc.edu/>.

### **Non-discrimination**

The University is committed to providing an inclusive and welcoming environment for all members of our community and to ensuring that educational and employment decisions are based on individuals' abilities and qualifications. Consistent with this principle and applicable laws, the University's Policy Statement on Non-Discrimination offers access to its educational programs and activities as well as employment terms and conditions without respect to race, color,

gender, national origin, age, religion, creed, genetic information, disability, veteran's status, sexual orientation, gender identity or gender expression. Such a policy ensures that only relevant factors are considered and that equitable and consistent standards of conduct and performance are applied. If you are experiencing harassment or discrimination, you can seek assistance and file a report through the Report and Response Coordinators (see contact info at [safe.unc.edu](https://safe.unc.edu)) or the Equal Opportunity and Compliance Office, or online to the EOC at <https://eoc.unc.edu/report-an-incident/>.

## Diversity statement

I strive to make this classroom an inclusive space for all students. Please let me know if there is anything I can do to improve; I appreciate any suggestions. More broadly, our school has adopted diversity and inclusion [mission and vision statements](#) with accompanying goals. These complement the university non-discrimination policy described above, as well as [broader university goals](#) for diversity. In summary, UNC is committed to providing an inclusive and welcoming environment for all members of our community and does not discriminate in offering access to its educational programs and activities on the basis of age, gender, race, color, national origin, religion, creed, disability, veteran's status, sexual orientation, gender identity, or gender expression. The Dean of Students (Suite 1106, Student Academic Services Building, CB# 5100, 450 Ridge Road, Chapel Hill, NC 27599-5100 or [919] 966-4042) has been designated to handle inquiries regarding the University's nondiscrimination policies.

## Absences

If you need to be absent, please let me know in advance, and be sure to send your reflections by start of class so we can include your thoughts in class discussion.

## Course requirements

- **Reflection and participation:** There will be multiple opportunities to participate in class discussion. First, we will share reflections on readings at the start of class. I will provide prompts: an example might be to reflect on something of value you took from the readings, a question or point of confusion about any of the readings, and how any of the readings relate to your life, your topic, or past readings. These reflections will be done individually or in small groups. Second, I plan on building in group work after lectures so we can practice applying some of the concepts from readings/lectures. Throughout these and other activities, I expect everyone to engage in respectful discussion. Regular and on-time attendance is important as well.
- **Experiment-building assignments:** There are 5 assignments that correspond to the steps required in developing an experiment (see table below). These are opportunities to build and get feedback on your design prior to conducting the experiment and submitting the final paper. Instructions on each will be posted on Canvas before the due date. The assignments will be due on Canvas. I will build in workshop time during class to allow you to receive feedback from me and peers to help guide your work.
- **Final paper and presentation:** The final paper and presentation should demonstrate the culmination of the entire semester's work. This is a standard research paper suitable for conference or journal submission. The paper should be 8-10 pages (or fewer, if that's the norm in your field). The paper should be **single-spaced** and should include introduction, theory-based literature review, hypotheses, a complete methods section, results of main experiment (or at least of pilot testing), and a discussion. This paper is expected to be of much higher quality than the experiment-building assignments and needs to address feedback from those earlier pieces. It needs to be well-written and suitable to submit to a peer-review process. With permission under some circumstances (e.g., IRB issues), papers that are written up only through methods may be acceptable, but please check with me and do plan on doing at least some pilot testing that you can report. You will also present your work in class in a style similar to (but more engaging than

## Grading

Grades for overall course performance and most individual assignments will be based on the graduate scale (H, P, L, F). *As applied to final course grades*, interpretations are as follows:

- H = Your very best work. These students read and critically engage with all materials. They can apply concepts to practical and/or research-based contexts, suggest new directions, and significantly contribute to the body of scholarship in the area. Assignments are submitted on time and are well written and engaging. *Reserved for truly extraordinary work – I will actually say “wow!” when reviewing the body of work.*
- P = Your very best work. These students read and critically engage with all materials. They can apply concepts and suggest new directions in many instances. Assignments are submitted on time and are well written and engaging.
- L = Students read most of the material but do not often critically engage with it. They can apply concepts and suggest new directions in some instances.
- F = Students miss one or more classes without prior arrangement. They do not always read the material, and they fail to critically engage it.

Most individual assignments are also evaluated according to the H/P/L/F scale. *As applied to individual assignments:*

- H signifies work that is exceptional in terms of conceptual soundness, depth of analysis, or significance of contribution – again, a “wow!” assessment. Needless to say, work earning an H must also meet content and formatting requirements as explained in instructions, have few errors, and be submitted on time. (For the final paper, an H would be comparable to readiness to submit as a full paper to conference or journal as is or with just a few minor tweaks.)
- P signifies work that meets content and formatting requirements, is well written, has few errors, and is submitted on time. (For the final paper, a P would be comparable to readiness to submit to conference or journal with revising beyond a few minor tweaks but not a complete overhaul.)
- L indicates work that shows little understanding of the material and has substantial errors. (For the final paper: would need a complete overhaul to be submitted.)

Although no formal points corresponding to the grades are issued, the WEIGHTS of each assignment in determining the final course grade are as follows:

Experiment-building assignments <ul style="list-style-type: none"><li>● 3 ideas (5)</li><li>● Lit review (5)</li><li>● Hypos + sampling (10)</li><li>● Stim + measures (10)</li><li>● IRB application (5)</li></ul>	35
Final paper	40
Presentation	10
Reflection and participation	15
TOTAL	100

For individual assignments, I will also provide written feedback, typically in the form of comments (sometimes extensive) added directly to your paper using the comment feature in Word.

## Fall 2023 Experimental Design Course Schedule – tentative schedule – subject to change

This schedule represents a good faith effort to outline our work over the course of the semester. However, because of unpredictable factors, I reserve the right to make changes to any aspect of this syllabus, including the timeline and assignments. I will alert you of any changes in readings, assignments, due dates, etc., over the course of the semester. Thank you for your flexibility!

	Topic
Aug. 24	Day one. Meet and greet, discuss course goals, go over syllabus, discuss research interests.
Aug. 31	INTRODUCTION, HISTORY OF EXPERIMENTS, & ETHICS <ul style="list-style-type: none"><li>• Coleman Ch. 1-2</li><li>• Scharrer &amp; Ramasubramanian Ch. 2 (Canvas/Course Reserves; should be a review)</li><li>• Work on 3 ideas assignment due next week</li></ul>
Sep. 7	OVERVIEW OF EXPERIMENTS, THEORY, & TYPES <ul style="list-style-type: none"><li>• <b>Assignment due: 3 ideas</b></li><li>• Coleman Ch. 3 &amp; 4</li><li>• Mutz Ch. 1 (Canvas/Course Reserves)</li></ul>
Sep. 14	EXPERIMENTAL DESIGNS, VARIABLES, & MECHANISMS <ul style="list-style-type: none"><li>• Coleman Ch. 5 &amp; 6</li><li>• Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. <i>Communication monographs</i>, 76(4), 408-420. <a href="#">FULL TEXT</a></li><li>• Mook, D. G. (1983). In defense of external invalidity. <i>American psychologist</i>, 38(4), 379-387. <a href="#">FULL TEXT</a></li><li>• Sign up for consultations next week.</li><li>• Prep for assignment due in two weeks: Revise approved idea, and add theory-based lit review + hypotheses/RQs</li></ul>
Sep. 21	CONSULTATIONS + INDEPENDENT WORK
Sep. 28	RANDOMIZATION, EFFECT SIZES, & SAMPLING <ul style="list-style-type: none"><li>• <b>Assignment due: Revised idea with lit review and hypotheses</b></li><li>• Coleman Ch. 7-8</li><li>• O'Keefe, D. J. (2017). Misunderstandings of effect sizes in message effects research. <i>Communication Methods and Measures</i>, 11(3), 210-219. <a href="#">FULL TEXT</a></li><li>• (SKIM) Basil, M. D., Brown, W. J., &amp; Bocarnea, M. C. (2002). Differences in univariate values versus multivariate relationships: Findings from a study of Diana, Princess of Wales. <i>Human Communication Research</i>, 28(4), 501-514. <a href="#">FULL TEXT</a></li><li>• (SKIM) O'Keefe, D. J., &amp; Hoeken, H. (2021). Message design choices don't make much difference to persuasiveness and can't be counted on—not even when moderating conditions are specified. <i>Frontiers in psychology</i>, 12, 664160. <a href="#">FULL TEXT</a></li></ul>

Oct. 5	<p>STIMULI DESIGN (note: this may be an online asynchronous class)</p> <ul style="list-style-type: none"> <li>• Coleman Ch. 9 to pg. 264</li> <li>• Slater, D. M., Peter, J., &amp; Valkenburg, P. M. (2015). Message variability and heterogeneity: A core challenge for communication research. <i>Annals of the International Communication Association</i>, 39(1), 3-31. <a href="#">FULL TEXT</a></li> <li>• Aguinis, H., &amp; Bradley, K. J. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. <i>Organizational research methods</i>, 17(4), 351-371. <a href="#">FULL TEXT</a></li> <li>• Start to develop your stimuli and think about your DVs. Bring draft to class next week.</li> </ul>
Oct. 12	<p>MANIPULATION CHECKS &amp; MEASURES</p> <ul style="list-style-type: none"> <li>• <b>Bring your stimuli and measures for informal pretesting with peers</b></li> <li>• Coleman Ch. 9 (pgs. 264-284), Ch. 10-11</li> <li>• Hauser, D. J., Ellsworth, P. C., &amp; Gonzalez, R. (2018). Are manipulation checks necessary?. <i>Frontiers in psychology</i>, 9, 998. <a href="#">FULL TEXT</a></li> <li>• (READ HOW THEY PRETESTED STIM) Brown, D. K., &amp; Mourão, R. R. (2021). Protest coverage matters: How media framing and visual communication affects support for Black civil rights protests. <i>Mass Communication and Society</i>, 24(4), 576-596. <a href="#">FULL TEXT</a></li> <li>• Work on IRB application due after break. Revise stim/instrument based on feedback (you will need to submit these materials with IRB application).</li> </ul>
Oct. 19	FALL BREAK!
Oct. 26	<p>CURRENT ISSUES (Pre-registration, open science, p-hacking, etc.)</p> <ul style="list-style-type: none"> <li>• <b>Assignment due: IRB application</b></li> <li>• Shrout, P. E., &amp; Rodgers, J. L. (2018). Psychology, science, and knowledge construction: Broadening perspectives from the replication crisis. <i>Annual review of psychology</i>, 69, 487-510. <a href="#">FULL TEXT</a></li> <li>• Fox, J., Pearce, K. E., Massanari, A. L., Riles, J. M., Szulc, Ł., Ranjit, Y. S., ... &amp; L. Gonzales, A. (2021). Open science, closed doors? Countering marginalization through an agenda for ethical, inclusive research in communication. <i>Journal of Communication</i>, 71(5), 764-784. <a href="#">FULL TEXT</a></li> <li>• (FOCUS ON COROLLARIES AND HOW TO IMPROVE) Ioannidis, J. P. (2005). Why most published research findings are false. <i>PLoS medicine</i>, 2(8), e124. <a href="#">FULL TEXT</a></li> <li>• Sign up for consultations next week.</li> </ul>
Nov. 2	CONSULTATIONS + INDEPENDENT WORK (REVISE IRB/MATERIALS AND SUBMIT)
Nov. 9	<p>VARIATIONS ON EXPERIMENTAL DESIGNS + WRAP UP</p> <ul style="list-style-type: none"> <li>• Read, G. L., Partain, L. P., Vaughn, Z., Semivolos, A., Anderson, P. B., &amp; Gonzales, A. L. (2020). A critical approach to investigating communication practices of marginalized populations using longitudinal field experiments. <i>Communication Methods and Measures</i>, 14(1), 55-70. <a href="#">FULL TEXT</a></li> <li>• Robinson, S., &amp; Mendelson, A. L. (2012). A qualitative experiment: Research on mediated meaning construction using a hybrid approach. <i>Journal of Mixed Methods Research</i>, 6(4), 332-347. <a href="#">FULL TEXT</a></li> </ul>

Nov. 16	INDEPENDENT WORK TO CONDUCT EXPERIMENT, RUN ANALYSIS, ETC.
Nov. 23	HOLIDAY – NO CLASS!
Nov. 30	<p>Present your final project and submit slides.</p> <p>FINAL PAPERS DUE DEC 11 BY NOON on Canvas.</p> <p>HAVE A SAFE AND RESTFUL HOLIDAY BREAK!</p>