

Spring Semester 2023
Thursday, 9:30-12:20
Location: ASC 228



Instructor: Dr. Lindsay Young
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Office Hours Location: <https://usc.zoom.us/j/4650307719>

To sign up for office hours: Please use the [Office Hours Schedule](#) to sign up for office hours with Lindsay (1st worksheet tab) and Feixue (2nd worksheet tab)

Course Description and Theme

Course Description

COMM 550, Quantitative Research Methods in Communication, is designed to introduce you to the basics of quantitative communication research and to sharpen your understanding of how to use quantitative approaches in your own research pursuits. To these ends, the course covers essential ideas in research design, measurement, hypothesis generation, data collection, and data analysis, while also underscoring ethical considerations that govern responsible social scientific research.

An important portion of the class is devoted to a survey of statistical methods, which includes topics on the nature of quantitative data, the logic of statistical inference, and various statistical tests such as analysis of variance, regression, nonparametric statistics, and quantitative content analysis. A set of computer lab assignments will give you the opportunity to become familiar with the R computer software package and experience computing the various statistics reviewed in class. Perhaps most important, each student will develop a research proposal, putting into practice the theorizing, design, instrumentation, and analytic knowledge acquired throughout the class. APA citation style (7th edition) should be used to prepare the written proposal. Thus, this course is designed to provide both a broad overview of the research process and practical experience in conducting quantitative empirical communication research.

Course Theme: Quantitative Social Science for Social Justice (aka “Quantitative Criticalism”)

In addition to providing methodological training, this course is also designed to underscore the role that quantitative social science plays (or can play) in addressing critical social issues and the questions of power, equity, and justice that accompany them. To these ends, many of our readings will showcase a an orientation to research called “*Quantitative Criticalism*,” whereby research is conducted to (1) expose injustices and inequalities, (2) to bring data to bear on the structures and forces that help explain those injustices and inequalities, and/or (3) to ensure that measures and methods are used appropriately to represent circumstances and contexts of inequality and are not used as means to reinforce exclusion and hierarchy. *To be clear, I do not expect everyone to come away from this class wanting to devote their careers to advancing this perspective in their own work.*

However, my hope is that everyone will come out of this class appreciating the role that quantitative research methods can play in bringing attention to and resolving social injustices and inequalities.

Learning Objectives

The intention of this course is not to transform you into an expert in quantitative methods nor is to indoctrinate you with a “Quantitative Perspective.” Rather, the overarching goal is to strengthen your understanding of quantitative social scientific approaches so that you can apply them if and when appropriate in your own work *and* critique them knowledgeably. As such, by the end of the semester, students enrolled in this course should be able to:

1. Explain various statistical approaches and the research contexts in which they ought to be used.
2. Conduct basic statistical analyses using R.
3. Interpret the results of your statistical analysis.
4. Interrogate the use and effectiveness of various analytic techniques in published works.
5. Identify and assess the ethical issues that ground responsible social scientific work.
6. Develop your own quantitative research project.
7. Write a professional research proposal that details all aspects of your quantitative study.

My Teaching Philosophy

My teaching is guided by the principle that ***education is a partnership***. By this, I mean that you and I are joint participants in the educational process and, therefore, we should consider ourselves collaborators, working together to achieve a common pursuit. When put into practice, this “partnership” perspective should translate into interactions characterized by:

- *Intellectual generosity*: Intellectual generosity is what happens when I bracket my own ideas to help you develop your own *and* when you bracket your ideas to help your fellow classmates develop their own. More than just a selfless act and a sign of one’s maturity, being intellectually generous can also help you grow in your own thinking.
- *Mutual respect*: Our diverse backgrounds — by race, ethnicity, gender, sexuality, disability, class, ideology, and even personality traits — are our greatest strengths. I will strive to make my classroom a place where those differences can be expressed and valued as the assets that they are. To ensure that everyone feels welcome and safe in expressing themselves, we must treat one another with mutual respect and proceed with a good faith effort to listen and learn from one another. Healthy partnerships are respectful partnerships.
- *Mutual accountability*: We must hold each other accountable for the responsibilities we have to make this a successful experience. As students, you are responsible for attending class, engaging with course content, completing assignments, etc. As your professor, I am responsible for ensuring a productive and safe learning environment, providing timely and constructive feedback, responding to your concerns, etc. If we find ourselves falling short, it’s important that we be receptive to feedback on how we can improve.
- *Mutual patience and flexibility*: From the pandemic, I learned to understand the importance of patience and flexibility, as we can’t control every aspect of our environment. I am committed to creating a learning environment that works for us, but to do that I need your patience and flexibility as I figure out (with your feedback) what works and what does not work. In return, I will be as patient and flexible as I can for you.

Communication with me

I want you to feel comfortable asking questions and giving me feedback on the course. I am eager to learn what works and what doesn't. You will have several options for *seeking* feedback from me and/or *providing* feedback for me, including:

- In class: Each class will start with a check-in; good time for logistical questions
- Office hours: Speak with me directly during my posted office hours or by appointment
- Email: Email me (lindsay.young@usc.edu) and I will respond within 24 hours (often sooner)
- End-of-term evaluations

Required and Recommended Texts and Software

Required Texts:

- Scharrer and Ramasubramanian (2021). *Quantitative Research Methods in Communication: The Power of Numbers for Social Justice Research*. Routledge (ISBN-13: 978-0367547851)
- Field, A., Miles, J., & Field, Z. (2012). *Discovering Statistics Using R*. SAGE Publications, Inc. (ISBN-13: 978-1446200469)
- Hayes, A. F. (2015). *Statistical Methods for Communication Science*. Mahwah, NJ: Lawrence Erlbaum Associates (ISBN: 978-1138982932)

Recommended Texts:

- Salganik, M. (2018). *Bit by Bit: Social Research in the Digital Age*. Princeton University Press. (ISBN: 978-0691196107)
- *Publication Manual of the American Psychological Association* (7th ed.) (2020). Washington, D.C.: American Psychological Association. (ISBN: 978-1433832161)

Required (free) Software: (*Note:* Instructions for installing R and R Studio will be posted on Blackboard).

- R Software Environment: <https://www.r-project.org/>
- R Studio: <https://rstudio.com/>

Useful Resources:

- Stackoverflow - <http://stackoverflow.com>
- Cross Validated - <http://stats.stackexchange.com/>
- R- Bloggers - <http://www.r-bloggers.com/>
- Comprehensive R Archive Network - <http://cran.r-project.org/>

Description of Assignments and Assessments

Statistics Labs

Weekly labs (9 in total) provide experience analyzing data, computing statistics, and performing some of the other data related activities in the class. You will learn to use the R computer software package for data management and analysis. Each lab will be worth 10 points each. If you think you will need to request an extension on a lab assignment, please email Feixue (yman@usc.edu) before the due date. Students are permitted to consult with each other on the labs, however each student is responsible for writing their own code, turning in their own lab write-up. All labs should be turned in via Blackboard, where there will be an assignment for each lab.

Discussion Readings

Assignments for most weeks include 1-2 papers that feature research applying or addressing a methodological topic or analytic technique discussed in class. Each student will lead a 20-30 minute class discussion on one of those papers that: 1) provides an overview of and interrogates the key arguments, framework applied, methods used, and findings; 2) discusses the ethics of the empirical research being performed or the ethical issues that the paper elaborates; and 3) suggests what they might do differently to answer the same research question (if the exemplar is an empirical study). Presentations are meant to provoke a conversation, not to simply summarize.

Research Proposal

Conducting research requires a tremendous amount of planning, which is where the research proposal comes in. Research proposals will play an integral role in your academic careers and lay the foundation for dissertation prospectuses, IRB applications, and grant applications. For this reason, an important part of this course is designing a research project that will feature detailed plans for leveraging quantitative research methods and study design features to explore a problem space of your choice.

Research proposals are not abstracts, quick summaries, or outlined ideas. They are fully fleshed out documents that: 1) provide background on the problem of interest that underscores its overall significance and the gaps in understanding that need to be filled, 2) establish a theoretical framework that informs your RQs and/or Hypotheses, 3) details data collection plans, measures, and a thorough analytic plan.

Everyone will submit the proposal in sections, which I will review and provide feedback on. With the exception of the project memo, which is a stand-alone submission, each new section that you submit should be appended to the previous section(s) so I can easily refer back to those sections as needed. A final draft of the full proposal will then be submitted at the end of the semester.

Proposal Specs and Deadlines

Proposals should be written using APA citation style and submitted as a **single-spaced MS Word document not to exceed 8 single-spaced pages** (excluding references and the 1 page project summary). Section drafts should be submitted via email to Lindsay (lindsay.young@usc.edu).

Section	Description	Suggested Length	Due Date
Proposal Memo	<ul style="list-style-type: none"> What you’re interested in studying, why it is important, theory(s) that could help you understand the problem, potential RQs or hypotheses 	1 page, single-spaced	Mon, 1/30
Significance	<ul style="list-style-type: none"> Conveys the importance of the problem Summarizes extant research on the topic Articulates gaps in knowledge that need to be filled 	1-2 pages, single-spaced	Mon, 2/13
Theory	<ul style="list-style-type: none"> Describes theory(s) that help you understand your problem Forms basis for your hypotheses and/or research questions 	1-1.5 pages, single-spaced	Mon, 2/27
Approach (P1)	<ul style="list-style-type: none"> Participants: recruitment and/or sampling procedures Measures: primary and secondary measures 	2 pages, single-spaced	Mon, 3/27
Approach (P2)	<ul style="list-style-type: none"> Procedures: data collection methods, research design, data processing and diagnostics, analysis strategy Anticipated challenges and alternative strategies 	2-3 pages, single-spaced	Mon, 4/10
Full Final Draft	<ul style="list-style-type: none"> Includes all sections revised (significance, theory, approach) Also includes a 1-page proposal summary that will precede the other sections (we will discuss what this should look like in class) 	No more than 8 single-spaced pages + 1 page project summary	Mon, 5/8

Presentation of Research Proposal

Everyone will give a 10-15 minute presentation on their research during one of the last two class sessions. For their presentations, students should use appropriate slide presentation software.

Final Exam

A take-home exam will assigned at the end of the semester, preceding the oral presentations. All students will be given the same dataset and will be asked to perform a variety of coding and statistical tasks on those data. You will have one week to work **INDEPENDENTLY** on the exam and prepare your submission, which will include your code, results, and interpretations of results.

Grading Breakdown and Scale

Grading Breakdown

Assignment/Assessments	% of Grade
Labs	30%
Final Exam (take home)	30%
Research Proposal (written and oral)	40%
TOTAL	100%

Grading Scale

94 to 100%: A	80% to 83%: B-	67% to 69%: D+
90% to 93%: A-	77% to 79%: C+	64% to 66%: D
87% to 89%: B+	74% to 76%: C	60% to 63%: D-
84% to 86%: B	70% to 73%: C-	0% to 59%: F

Academic Integrity and Support Systems

Academic Integrity:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[National Suicide Prevention Lifeline](#) - 1 (800) 273-8255 – 24/7 on call

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

[Relationship and Sexual Violence Prevention and Services \(RSVP\)](#) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

[Office of Equity and Diversity \(OED\)](#) - (213) 740-5086 | Title IX – (213) 821-8298; , titleix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following *protected characteristics*: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations. The university also prohibits sexual assault, non-consensual sexual contact, sexual misconduct, intimate partner violence, stalking, malicious dissuasion, retaliation, and violation of interim measures.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-5086 or (213) 821-8298

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity |Title IX for appropriate investigation, supportive measures, and response.

[The Office of Disability Services and Programs](#) - (213) 740-0776

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

[USC Support and Advocacy](#) - (213) 821-4710

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

[Diversity at USC](#) - (213) 740-2101

Information on events, programs and training, the Provost’s Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

[USC Emergency - UPC](#): (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

[USC Department of Public Safety - UPC](#): (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

Non-emergency assistance or information.

[Annenberg Student Success Fund](#)

The Annenberg Student Success Fund is a donor-funded financial aid account available to USC Annenberg undergraduate and graduate students for non-tuition expenses related to extra- and co-curricular programs and opportunities.

Course Schedule: A Weekly Breakdown

* **Note:** Assigned readings that are not from required texts will be made available to students on Blackboard

	Topics	Background Readings S&R = Scharrer & Ramasubramanian; K&L = Kerlinger & Lee; Bb = Blackboard	Student Discussion Readings (available on Bb)	Lab Demos (Lab instructions on Bb)	Deliverables Due
Week 1 Date: 1/12	Course Welcome and Overview; Overview of Research Proposal Structure			Lab #0: Setting up your R environment	By day of class: <ul style="list-style-type: none"> • Installation of R • Signed up for office hours on Th, 1/12 or F, 1/13 • Signed up for a discussion reading
Week 2 Date: 1/19	Foundations; The Research Process; Governing Ethics	Foundations <ul style="list-style-type: none"> • S&R Ch1 Research Process <ul style="list-style-type: none"> • K&L Ch2 (on Bb) • <i>(Optional)</i>: Field Ch1 Ethics <ul style="list-style-type: none"> • S&R Ch2 	Davis, Williams, & Yang. (2021). Algorithmic reparation.	Lab #1: Data coding and screening	
Week 3 Date: 1/26	Fundamentals of Measurement; Data Description	Measurement <ul style="list-style-type: none"> • S&R Ch3 • Hayes Ch2 Data Description <ul style="list-style-type: none"> • Field Chs 4-5 	Harnois, C. E. (2022). What do we measure when we measure perceptions of everyday discrimination?	Lab #2: Describing data	By Friday (1/27): Lab#1 By Monday (1/30): Proposal Memo
Week 4 Date: 2/2	Research Design; Sampling	Research Design <ul style="list-style-type: none"> • K&L Chs 18-20 (on Bb) Sampling <ul style="list-style-type: none"> • S&R Ch4 	Rafail, P. (2017). Nonprobability Sampling and Twitter	Lab #3: Testing assumptions and correcting for “problems” in your data	By Friday (2/3): Lab #2

<p>Week 5 Date: 2/9</p>	<p>Probability; Parameter Estimation; Hypothesis Testing</p>	<p>Probability</p> <ul style="list-style-type: none"> Hayes Ch5 <p>Parameter Estimation</p> <ul style="list-style-type: none"> Hayes Ch7 <p>Hypothesis Testing</p> <ul style="list-style-type: none"> Hayes Ch8 	<p>Davis & Afifi (2019). The Strong Black Woman Collective Theory: Determining the Prosocial Functions of Strength Regulation in Groups of Black Women Friends.</p>	<p>No Lab</p>	<p>By Friday (2/10): Lab #3</p> <p>By Monday (2/13): Significance Section</p>
<p>Week 6 Date: 2/16</p>	<p>Experimental Research; t-tests</p>	<p>Experimental Research</p> <ul style="list-style-type: none"> S&R Ch6 <p>T-tests</p> <ul style="list-style-type: none"> Field Ch9 	<p>Roden et al. (2023) - Retweet for justice? Social media message amplification and Black Lives Matter allyship</p>	<p>Lab #4: Independent and dependent t-test</p>	
<p>Week 7 Date: 2/23</p>	<p>Observational Research; Analysis of Variance (ANOVA)</p>	<p>Observational Research</p> <ul style="list-style-type: none"> K&L Ch31 (on Bb) <p>Analysis of Variance</p> <ul style="list-style-type: none"> Field Ch10 	<p>Jackson, Bailey, & Foucault (2018). #GirlsLikeUs: Trans advocacy and community building online</p>	<p>Lab #5: ANOVAs</p>	<p>By Friday (2/24): Lab #4</p> <p>By Monday (2/27): Theory Section</p>
<p>Week 8 Date: 3/2</p>	<p>Survey Research; Non-parametric tests</p>	<p>Survey Research</p> <ul style="list-style-type: none"> S&R Ch5 <p>Non-parametric tests</p> <ul style="list-style-type: none"> Field Ch15 Field Ch18 	<p>Lett & Everhart (2022) - Considerations for transgender population health research based on US national surveys</p>	<p>Lab #6: Chi-Square and other nonparametric tests</p>	<p>By Friday (3/3): Lab #5</p>
<p>Week 9 Date: 3/9</p>	<p>Content Analysis; Intercoder reliability; Correlations</p>	<p>Content Analysis</p> <ul style="list-style-type: none"> S&R Ch7 - Examining Communication Content <i>(Optional)</i>: Schwartz and Unger (2015) - Data-Driven Content Analysis of Social Media: A Systematic Review <p>Reliability and Correlations</p> <ul style="list-style-type: none"> Field Ch6 <i>(Optional)</i>: Hayes Ch6 	<p>Colditz et al. (2018) - Toward Real-Time Infoveillance of Twitter Health Messages</p>	<p>Lab #7: Correlations</p>	<p>By Friday (3/11): Lab #6</p>
<p>Week 10 Date: 3/16</p>	<p>NO CLASS - SPRING BREAK</p>				

<p>Week 11 Date: 3/23</p>	<p>Linear Regression; Moderation Analysis</p>	<p>Regression</p> <ul style="list-style-type: none"> Field Ch7 <p>Moderation Analysis</p> <ul style="list-style-type: none"> Hayes Ch16 	<p>Yang, T., Ticona, J., & Lelkes, Y. (2021). Policing the Digital Divide: Institutional Gate-keeping & Criminalizing Digital Inclusion.</p>	<p>Lab #8: Linear Regressions and moderation analysis</p>	<p>By Friday (3/24): Lab #7</p> <p>By Monday (3/27): Approach Section, Part 1</p>
<p>Week 12 Date: 3/30</p>	<p>Logistic Regression</p>	<p>Logistic Regression</p> <ul style="list-style-type: none"> Field Ch8 	<p>Riedl et al (2022) – Platformed Antisemitism on Twitter</p>	<p>Lab #9: Logistic regression</p>	<p>By Friday (3/31): Lab #8</p>
<p>Week 13 Date: 4/6</p>	<p>Mixed Methods; Distribution of final exam dataset</p>	<p>Mixed Methods Research</p> <ul style="list-style-type: none"> Greene Chs 6 -7 (on Bb) 	<p>Ophir, Y., Walter, D., & Marchant, E. R. (2020). A Collaborative Way of Knowing: Bridging Computational Communication Research and Grounded Theory Ethnography.</p>		<p>By Friday (4/7): Lab #9</p> <p>By Monday (4/10): Approach Section, Part 2</p>
<p>Week 14 Date: 4/13</p>	<p><i>Special Topic Discussion:</i> Limits and opportunities for quantitative methods in intersectionality research</p>	<p>The Combahee River Collective Statement</p> <p>Bowleg (2008) – When Black + Lesbian + Woman ≠ Black Lesbian Woman</p> <p>Else-Quest & Hyde (2016) - Intersectionality in Quantitative Psychological Research, Methods and Techniques</p>	<p>Jackson et al (2021) – Intersectional experiences: A mixed methods experience sampling approach to studying an elusive phenomenon</p>		<p>By Monday (4/17): Turn in take-home exam</p>
<p>Week 15 Date: 4/20</p>	<p>Student Proposal Presentations</p>				
<p>Week 16 Date: 4/27</p>	<p>Student Proposal Presentation</p>				
<p>FINALS WEEK May 3-10</p>	<p>NO CLASS</p>				<p>Due Monday, 5/8: Final Research Proposal due</p>