

**EDUC 536: Inquiry II – Inferential Track**  
**Fall 2019 – Course Syllabus**



Tuesdays, 7:10 – 9:50 pm  
Room: WPH 201

**Instructors**

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The mission of the USC Rossier School of Education is to prepare leaders to achieve educational equity through practice, research and policy. We work to improve learning opportunities and outcomes in urban settings and to address disparities that affect historically marginalized groups. We teach our students to value and respect the cultural context of the communities in which they work and to interrogate the systems of power that shape policies and practices. Through innovative thinking and research, we strive to solve the most intractable educational problems. This course focuses on the inquiry skills leaders need to critically consume research, ask critical questions of research, and determine equitable approaches to finding answers through the systematic collection and analysis of data.

**Course Description**

This is the second inquiry course, and as such, it builds upon the broad foundation provided in Inquiry I of being a good consumer of research and understanding how systematic inquiry is conducted in education using qualitative and quantitative methods. Inquiry II deepens and extends this knowledge by providing more in-depth focus on how to conduct research using one of these paradigms in particular and prepares students to engage in their own dissertation inquiry around a problem of practice. Both tracks emphasize techniques to ensure data quality and use of sound sampling strategies, whether purposeful or random, to generate valid, meaningful, and trustworthy conclusions. The *inferential track* of Inquiry II emphasizes describing and exploring relationships among quantified variables with the intent to generalize the findings from the particular (sample) to the population using descriptive and inferential statistics. Students will learn through experiential exercises how to design/select instruments, collect, analyze, interpret, and present data.

## **Learning Outcomes of Inferential Track**

By the end of the course, students will be able to:

- Generate research questions that are appropriate for quantitative methods
- Understand different quantitative designs
- Identify appropriate sampling techniques
- Identify/select reliable and valid instruments for data collection
- Develop good survey items
- Know how to test for and interpret reliability and validity of instruments
- Know and apply appropriate type of statistical analysis for different types of research questions and most common types of designs
- Be able to read and interpret common statistical analyses
- Conduct basic statistical analysis using SPSS

## **Textbooks and Other Materials**

Salkind, N. J. (2016). *Statistics for people who (think they) hate statistics* (6<sup>th</sup> ed.). Thousand Oaks, CA: Sage Publications.

Fink, A. (2017). *How to conduct surveys*. (6<sup>th</sup> ed.). Thousand Oaks: Sage Publications.

From Inquiry I:

Creswell, J.W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.

Robinson Kurpius, S. E., & Stafford M. E. (2006). *Testing and measurement: A user-friendly guide*. Thousand Oaks: Sage Publications.

Other course readings will be available online via the course Blackboard website.

## **Course Assignments**

### **Attendance and Participation** (10%)

Class participation is essential to the collaborative learning process. Students are expected to come to class having completed the assigned readings for the week and be prepared to discuss the material and participate in class activities. In order to *earn full credit* for this portion, students must complete course readings and attend each session and actively participate in class discussions/activities. Note that even with consistent attendance, students who appear to be engaged in distracted behavior will be adversely affected in this portion of the grade. In case of emergency, religious holidays, or unavoidable absences, students are to notify the instructor via email before class. It is the student's responsibility to make arrangements for missed content and make up any work. See Attendance and Participation rubric for more details.

### **Quizzes** (30%)

Two quizzes will be administered as evaluative points covering the most important content of the course. They will be administered in class in weeks 6 (October 1) and 13 (November 19).

### Research Paper (50%)

Over the course of the semester, students will complete a research project. Students will gain experience in designing, collecting, and analyzing survey data. Students will then communicate their work through a written research paper. This exercise is intended to be similar to designing and implementing a dissertation study. There will be checkpoints for key components of the research project throughout the semester (see schedule below). Students are expected to come to class and share progress on the respective component due that day. Students who email a draft of the respective section to the instructor and TA by the day it is due will receive feedback. Grades for the final research paper will be assigned upon the final submission of the paper, not at the respective checkpoints (checkpoints are intended for feedback). Students may work in groups of 2-4. The final research paper is due Tuesday, December 17. The paper should include the following (as appropriate):

1. Introduction [10 pts.]
  - Motivate your study. Why is it important?
  - Provide context for the study.
2. Review of Related Literature/Theoretical Framework
  - What do we already know about this topic?
  - What don't we know? What is this study's contribution?
  - Are there particular pertinent theories?
3. Purpose/Research Questions
  - Describe the intervention (if any).
  - Your main RQ should test the relationship between at least one continuous IV and DV
  - You should include a secondary RQ(s) studying group differences using at least one categorical IV and one continuous IV.
4. Methods [25 pts.]
  - What are the key variables? How do you operationalize them?
  - Describe the instrument(s) used and their characteristics. (You may also want to include the instrument(s) in an appendix.)
  - What is the sampling process? Describe the sample. A minimum sample size of 50 is required.
  - Describe the procedures for collecting data (administering instruments).
  - How will the data be analyzed?
5. Results [15 pts.]
  - Include test statistics as well as a written description.
  - Tables or graphs may be helpful here.
6. Discussion/Conclusion
  - Summarize the study.
  - What are the implications for practice?
  - What are the study's limitations? Be sure to speak to threats to internal and external validity.
  - What are directions for future research?

### Final Presentation (10%)

Prepare and present a final presentation summarizing your study. You should speak to each of the components above in the paper. The presentation should be approximately 20-25 minutes. Presentations will take place during final exam week (December 10).

### Grading Scale

Grades will be determined using the following scale:

A	94-100
A-	90-93
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	59 and below

### Academic Conduct

Students are expected to be respectful to the instructors, peers, and property. Please conduct yourself accordingly. In particular, note that plagiarism is a serious academic offense with serious consequences. Please familiarize yourself with the university's Student Conduct Code (<https://policy.usc.edu/scampus-part-b/>).

Use of laptops are fine for the course, as long as you avoid distractions and stay engaged with the class discussion.

For any group work, if there are any concerns about noncooperation or nonequivalence of work among members, students should email the instructor as soon as possible. The instructor will conduct an informal assessment (without indicating who raised the concern).

### Academic Accommodations

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the instructor as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. - 5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-7766.

## **Other Support Systems**

*Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call*

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

<https://engemannshc.usc.edu/counseling/>

*National Suicide Prevention Lifeline - 1-800-273-8255*

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. <http://www.suicidepreventionlifeline.org>

*Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call*

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. <https://engemannshc.usc.edu/rsvp/>

*Sexual Assault Resource Center*

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: <http://sarc.usc.edu/>

*Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086*

Works with faculty, staff, visitors, applicants, and students around issues of protected class.

<https://equity.usc.edu/>

*Bias Assessment Response and Support*

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. <https://studentaffairs.usc.edu/bias-assessment-response-support/>

*The Office of Disability Services and Programs*

Provides certification for students with disabilities and helps arrange relevant accommodations.

<http://dsp.usc.edu>

*Student Support and Advocacy – (213) 821-4710*

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. <https://studentaffairs.usc.edu/ssa/>

*Diversity at USC*

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students.

<https://diversity.usc.edu/>

*USC Emergency Information*

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible, <http://emergency.usc.edu>

*USC Department of Public Safety – 213-740-4321 (UPC) and 323-442-1000 (HSC) for 24-hour emergency assistance or to report a crime.*

Provides overall safety to USC community. <http://dps.usc.edu>

## Course Schedule

<b>Date</b>	<b>Topic</b>	<b>Readings</b>	<b>Research Paper Checkpoints</b>
Week 1 Aug. 27	Overview of Course Research Designs Research Questions Variables Experiments Threats to Validity	Salkind – Ch. 1 Fink – Ch. 5  Review Creswell & Creswell – Ch. 1, 7-8	
Week 2 Sept. 3	Conceptualization, Operationalization, and Measurement Reliability Validity	Babbie – Ch. 5 (posted on Blackboard) Salkind – Ch. 6  Review Kurpius & Stafford – Ch. 1, 9-10	Groups & Research Topic Ideas (Think about Motivation for the Study and Prior Literature)
Week 3 Sept. 10	Sampling	Fink – Ch. 4 <a href="http://www.stattrek.com/survey-research/sampling-methods.aspx">www.stattrek.com/survey-research/sampling-methods.aspx</a> Article TBD	Research Questions & Key Variables
Week 4 Sept. 17	Survey Design	Fink – Ch. 1-3 <a href="http://www.pewresearch.org/methodology/u-s-survey-research/questionnaire-design/">www.pewresearch.org/methodology/u-s-survey-research/questionnaire-design/</a> Article TBD	Sampling Procedure
Week 5 Sept. 24	Quiz 1 Review Central Tendency Variability Displays of Data	Salkind – Ch. 2-4 Fink – Ch. 7  Review Kurpius & Stafford – Ch. 2-4 Article TBD	Survey Instruments
Week 6 Oct. 1	Quiz 1 Intro to SPSS	Salkind – Appendix A	
Week 7 Oct. 8	Correlation Hypothesis Testing Normal Curves & Standardization	Salkind – Ch. 5, 7-8 Fink – Ch. 6  Review Kurpius & Stafford – Ch. 5	Data Collection Procedures
Week 8 Oct. 15	Statistical Significance z-tests t-tests	Salkind – Ch. 9-12	(Data Collection)
Week 9 Oct. 22	ANOVA MANOVA Factorial ANOVA Correlation Coefficients	Salkind – Ch. 13-15, 18 (p. 333)	(Data Collection)

<b>Date</b>	<b>Topic</b>	<b>Readings</b>	<b>Research Paper Checkpoints</b>
Week 10 Oct. 29	Regression	Salkind – Ch. 16	(Data Collection)
Week 11 Nov. 5	Chi-Square Meta-Analysis	Salkind – Ch. 17-18 Article TBD	(Data Collection) Data Analysis Procedures
Week 12 Nov. 12	Ethics of Research Quiz 2 Review	The Belmont Report (posted on Blackboard) Article TBD  Review Kurpius & Stafford – Ch. 11	(Data Analysis)
Week 13 Nov. 19	Quiz 2 Group Project Work Session		(Data Analysis)
Week 14 Nov. 26		No Class – Happy Thanksgiving!	
Week 15 Dec. 3	Group Project Work Session		Results
Week 16 Dec. 10	Final Presentations	<i>Final Paper due Tuesday, December 17</i>	

\*Syllabus is subject to change per instructor's discretion.