

Applied Education Statistics

CIEP 498

Summer 2019

INSTRUCTOR: Eilene Edejer
EMAIL: eedejer@luc.edu

OFFICE PHONE: 312.915.6343
OFFICE HOURS: By appointment

Texts

Required Texts

Field, A. (2017). *Discovering statistics using SPSS 5th ed.* Los Angeles, CA: Sage. ISBN: 9781526436566

Online text [resources](#)

Reference Texts

Shadish, W., Cook, T. & Campbell, D. (2001). *Experimental and quasi-experimental research designs (2nd ed.)*. Houghton-Mifflin. ISBN-10: 0395615569 ISBN-13: 978-0395615560

American Psychological Association. (2010). *Publication manual of the American Psychological Association (6th ed.)*. Washington, D.C.

Course Description

In preparation for advanced degree writing and research, candidates will utilize readings, discussions, and appropriate computer applications to interpret, organize, display, and summarize quantitative study results. Course concepts include *probability, normal distribution, tests of significance* and *correlation, simple regression, and multiple regression* are among the tests that may be utilized.

Loyola University Chicago Learning Community

Diversity:

In concert with the conceptual framework for the School of Education, faculty and students will be expected to show respect and sensitivity to individual, cultural, social, and economic diversity. In this spirit, as we look at questions of organizational theory, instructional leadership and student achievement, it will be our challenge to create will and capacity within our schools so that all educational stakeholders can fulfill the promise of education.

Technology:

The information pertinent to school organizations and instructional leadership constantly changes. Therefore, throughout the course, students will develop and practice skills in locating and using on-line resources critical to these topics.

Academic Honesty:

Academic honesty is an expression of interpersonal justice, responsibility and care, applicable to Loyola University faculty, students, and staff, which demands that the pursuit of knowledge in the university community be carried out with sincerity and integrity. The School of Education's Policy on Academic Integrity can be found at:

http://www.luc.edu/education/academics_policies_integrity.shtml. For additional academic policies and procedures refer to: http://www.luc.edu/education/academics_policies_main.shtml

Accessibility:

Students who have disabilities which they believe entitle them to accommodations under the Americans with Disabilities Act should register with the Services for Students with Disabilities (SSWD) office. To request accommodations, students must schedule an appointment with an SSWD coordinator. Students should contact SSWD at least four weeks before their first semester or term at Loyola. Returning students should schedule an appointment within the first two weeks of the semester or term. The University policy on accommodations and participation in courses is available at: <http://www.luc.edu/sswd/>

Electronic Communication Policies and Guidelines

The School of Education faculty, students and staff respect each other's rights, privacy and access to electronic resources, services, and communications while in the pursuit of academic and professional growth, networking and research. All members of the university community are expected to demonstrate the highest standards of integrity, communication, and responsibility while accessing and utilizing technology, information resources, and computing facilities. A link to the Loyola University Chicago and School of Education official policies and guidelines can be found at: http://www.luc.edu/media/lucedu/education/pdfs/SOE_Cyberbullying_Policy.pdf.

Addendum

You are encouraged to visit the following website which provides information related to academic honesty, accessibility, the SOE conceptual framework, ethics reporting, and electronic communication policies: www.luc.edu/education/syllabus-addendum/

IDEA Course Evaluation Link for Students

Each course you take in the School of Education is evaluated through the IDEA Campus Labs system. We ask that when you receive an email alerting you that the evaluation is available that you promptly complete it. To learn more about IDEA or to access the website directly to complete your course evaluation go to: <http://luc.edu/idea/> and click on STUDENT IDEA LOGIN on the left hand side of the page.

LiveText

All students, except those who are non-degree, must have access to LiveText to complete the benchmark assessments aligned to the Conceptual Framework Standards and all other accreditation, school-wide and/or program-wide related assessments. You can access more information on LiveText here: [LiveText](#).

Course Objectives

As a result of this course, students will be able to:

- Identify and apply statistical methods of analysis that are appropriate for the data being used.
- Read and comprehend statistical results and discussions.
- Distinguish between good and poor data interpretation.
- Describe the results of statistical analyses in clear, accurate language.

IDEA Objectives for Course Evaluation

At the end of the course, you will have an opportunity to complete an Online IDEA course evaluation. The objectives from this evaluation in bold most closely align with this course, and the remaining objectives are also important for the course

- 1. Gaining factual knowledge (terminology, classifications, methods, trends)**
2. Learning fundamental principles, generalizations, or theories
- 3. Learning to apply course material (to improve thinking, problem solving, and decisions)**
4. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course
11. Learning to analyze and critically evaluate ideas, arguments, and points of view

Course Requirements

Readings - Students are expected to thoroughly complete all assigned readings for the course by the date indicated on the course outline.

Assignments - All assignments must be completed by the due date. Late assignments will be penalized 20% of the total point value *per day*. Arrangements to submit late work must be made with the instructor; *late assignments may not be left for the instructor at the university or e-mailed to the instructor without his/her explicit permission*. Computer errors, printer difficulties, etc. will not excuse a late assignment. Absence from class does not excuse a late assignment. **All assignments must be completed in order to pass the course.**

Written Work - Formal written assignments are expected to reflect the highest standards of literacy. Clarity of expression and proper use of the conventions of written English will be considered when grading assignments.

Summary of Assignments

Readings: Prior to each class period, chapters in the text and/or journal articles will be assigned for reading.

Article Review: Each week, each student is asked to bring a quantitative research article from their dissertation research (or related) from which class activities and discussions will be conducted.

SPSS Activities: Several activities that utilize the statistical software, SPSS, will be given through the course of the class. These may begin during class, but require completion at a later time

Final Homework: This final assignment is a comprehensive exercise of material learned in class. Candidates will have the opportunity to apply concepts with the assistance of all course resources.

Participation: Consists of weekly communication with the instructor regarding questions or any feedback related to course.

TOPICAL OUTLINE AND SCHEDULE OF ASSIGNMENTS

DATE	Topic Area	Readings	Weekly Assignments
Week 1	Introduction <ul style="list-style-type: none">• Skimming the Surface	Field, Ch. 1 (1.1 – 1.6.2) SCC, Ch. 2-3	<ul style="list-style-type: none">• Article Review 1: Research Overview
Week 2	Statistics basics <ul style="list-style-type: none">• Terminology	Field, Ch. 2	<ul style="list-style-type: none">• Article Review 2: Research Article Exploration
Week 3	Dip into data - SPSS Descriptive Statistics <ul style="list-style-type: none">• Central tendency• Variability	Field, Ch. 4 Field, Ch. 1 (1.8)	<ul style="list-style-type: none">• SPSS Activity• Article Review 3: Descriptive Statistics
Week 3	Inferential Statistics <ul style="list-style-type: none">• Correlation• T-test	Field, Ch. 8 Field, Ch. 10	<ul style="list-style-type: none">• SPSS Activity• Article Review 4: Inferential Statistics
Week 4	ANOVA	Field, Ch. 12	<ul style="list-style-type: none">• SPSS Activity• Article Review 5: ANOVA
Week 5	Regression	Field, Ch. 9	<ul style="list-style-type: none">• SPSS Activity• Article Review 6: Regression
Week 6	Wrap it up!		<ul style="list-style-type: none">• Final Homework

Student Record Form

Assignment	Points Possible	Points Earned
Participation	10	
SPSS Activities	80 (4 x 20)	
Article Review	60 (6 x 10)	
Final Homework	50	
Total Points	200	

GRADING SCALE

184-200 = **A** (92%)

168-183 = **B** (84%)

152-167 = **C** (76%)

126-151 = **D** (63%)

0-125 = **F**