

University of Kentucky College of Education
Educational Policy Studies & Evaluation
Educational Counseling Psychology

Gathering, Analyzing, & Using Educational Data (EPE/EDP 557)

Spring 2007

Mondays 4pm-6pm, 353 Dickey Hall (plus lab sessions)

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Required Texts:

Sprinthall, R.C. (2006). *Basic Statistical Analysis (8th Edition)*. Allyn & Bacon.

Software:

We will be using SPSS in this class. SPSS is a relatively common quantitative software package in the social and natural sciences. SPSS is housed at a variety of locations on campus, including the ITC Lab and the Education Library. Inexpensive student versions of SPSS are available at the bookstore and online.

Course Description:

This course covers the basic statistical and graphical methods used to describe and analyze data in the social sciences. This course is not designed to produce the statistical skills or sophistication required to develop and complete major research projects. Rather, this course is designed to introduce students to the basic statistical concepts and techniques that constitute the foundation of quantitative research. Thus, this course emphasizes exploratory data analysis and interpreting the results of exploratory data analysis. The general goals of this course include: developing an understanding of statistical concepts, improving reasoning and critical thinking skills, and preparing students for more advanced quantitative courses.

Course Format:

This course consists of two types of activities. First, there is a weekly lecture designed to introduce students to important concepts and terms. Second, there are weekly small-group laboratory sessions. The laboratory sessions, which are conducted by graduate assistants, are designed to: review concepts covered during lectures, demonstrate selected software (SPSS) techniques, and begin lab assignments. Attendance is mandatory for lectures and lab sessions.

Course Requirements:

Exams (55% of final grade):

There will be a midterm and final examination. The midterm examination will be in class, and the final examination will be in class with an outside component.

Lab (40% of final grade):

There will be eight labs during the course of the semester (each lab will count as 5% of your final grade). You must complete all of the lab assignments in order to earn a final grade in this course. Labs submitted after their due dates will receive zero points. You may revise and resubmit any lab assignment (provided that it was originally submitted on time).

Attendance (5% of final grade):

You are expected to come to class, on-time, complete reading assignments, and participate in all activities and discussions. See S.R. 5.2.4.2 for a list of excused absences. The UK's stated definitions of excused and unexcused absences can be viewed online at: www.uky.edu/StudentAffairs/Code/part2.html

Noteworthy Policies:

Accommodations:

If you have a physical, emotional, or learning disability please let me know about any accommodation that will facilitate and enhance your learning experience. I also recommend contacting the university Disability Resource Center as this campus resource can also assist you. It is always best to identify your accommodation requirements as early in the semester as possible.

Academic Honesty:

Plagiarism constitutes thievery, fraud, or both thievery and fraud. The University of Kentucky Code of Student Rights and Responsibilities defines academic offenses and details procedures for dealing with them. The Code can be viewed electronically on the University's web site: <http://www.uky.edu/StudentAffairs/Code/part1.html>. All students are expected to be familiar with the content of the Code of Student Rights and Responsibilities.

Content Schedule:

Topic:
Introduction; Introduction to SPSS
Variables, Measurement, & Scales
Central Tendency & Variability
Exploratory Data Analysis & the Normal Distribution
Hypothesis Testing & Confidence Intervals
T-tests & ANOVA
2-Way Tables/Chi-Square, Simple Linear Regression
Multiple Regression
Power, Statistical Assumptions and Wrap Up