

**PPA207: Quantitative Research Methods
Spring, 2005**

**Public Policy and Administration
California State University, Sacramento**

**Professor Miguel Ceja
3029 Tahoe Hall
cejam@csus.edu
(916) 278-5591**

**Office Hours
Tuesdays 4-6:00pm**

Class will meet in Tahoe

COURSE OBJECTIVES

This graduate seminar is intended to prepare students to understand the nature, assumptions, and logic of quantitative methodology. The course will focus on issues of design, conceptualization, analysis, and interpretation of quantitative research procedures. The aim of this course is to help students acquire skills and gain experience in using a variety of research techniques for the purposes of understanding and making sense of public policy.

Learning objectives:

Upon completion of this course, students are expected to:

1. Understand the nature of quantitative procedures and how they compare to more traditional qualitative procedures;
2. Demonstrate skills necessary to engage in quantitative inquiry;
3. Identify various ways of collecting quantitative data (survey, cross-sectional, longitudinal, etc.);
4. Have a working knowledge of descriptive and regression analysis and the strengths of these techniques;
5. Demonstrate skills necessary to critique quantitative analysis;
6. Understand how to summarize, compile, interpret, and report quantitative data; and
7. Put together a research paper that utilizes quantitative methods to better understand a policy problem.

COURSE FORMAT

The graduate seminar is a space of open discussion, inquiry, and discovery. The success of the seminar rests on the free and uninhibited intellectual and emotional engagement of all participants. Effective participation and learning requires that students read class material, reflect on the readings, and come to the seminar prepared to share their ideas

with classmates. In addition to class discussions, there will be analytical exercises, discussion of computer assignments and individual student presentations.

ASSIGNMENTS AND GRADING

There are four components to students' grades:

1. Class attendance and participation – 10%
2. Article critiques – 15%
3. Midterm Assessment – 25%
4. Final presentations and course assignments – 15%
5. Final paper – 35%

Late Assignment and Missing Class

Late assignments will not be accepted. At my discretion a student who misses a deadline may be given an extension. Whether or not a penalty will be assessed on the late assignment depends on the reason.

Missing two class sessions or more **will** lower your overall grade for the class.

If you do miss class:

*Please tell me in advance, if possible.

*To demonstrate that you have engaged the material for a particular class, write a short analytical essay that reacts to one of the readings in depth.

*The reaction is due the day of the class you are scheduled to miss. This can be submitted electronically or placed in my box. If you miss a class unexpectedly, a different due date can be negotiated.

Classroom Participation

Classroom participation includes attendance, weekly class discussion, prepared questions or comments, in-class activities and student presentations.

Article critiques

You will be given two quantitative articles to critique (3-5 pages, dlb-spaced). The first critique will be due in class on February 8. The second critique will be due in class on March 8. In your critiques, please consider the following as a template for your critique:

1. Is the problem clearly stated;
2. Does the review of the literature adequately address the topic;
3. Is the particular methodology appropriate;
4. Are key variables described;
5. Are the results clearly presented;
6. Are conclusions drawn substantiated by the results; and

7. Are policy implications addressed

In addition to the above questions, please consider including in your article critiques, suggestions for improving the study (i.e. alternative use of variables, different methodological procedures, etc...)

Midterm Assessment

You will be given a midterm assessment after parts one and two of the course. This will take place during the class session of **March 15th**.

Final Presentation and Course Assignments

Final papers will be presented to the class (conference style) using power point slides and orally peer-reviewed by the class during the last two weeks of the semester. Presentations should be no longer than 12 minutes. Presentations should include at the very least, the following slides:

- Introduction
- Literature Review
- Methodology
- Results
- Conclusions and Implications

Course assignments will consist of exercise problems from both the Pollock and Allison books. These will be due during the class session that they are assigned for.

Final paper

Final papers (12-15 pages, dbl-spaced) will be due on the Thursday of finals week. Paper topics are open but should be approved by week 3. A two-page prospectus that outlines your final paper topic is due on week 5. I encourage you to discuss your paper topic with me prior to week 3. Drafts of sections of the paper will be due throughout the semester. In addition, you will be required to include at least **10** references that help contextualize your topic within the existing body of literature.

For your final paper, you will be required to make use of an existing data set. From this data set you will select a dependent variable to analyze. The dependent variable you choose, along with a set of independent variables from the same data source will form the basis for all of your quantitative analysis. Most of you will use the data sets that come with the Pollock book. You also have the option of utilizing an external data set of your choosing, assuming you have access to such data set. If you decide to do this, please let me know as soon as possible.

Required Texts

1. Paul D. Allison. (1999). Multiple Regression: A Primer. Thousand Oaks, CA: Pine Forge Press

2. Phillip H. Pollock (2002). *An SPSS Companion to Political Analysis*. CQ Press: Washington.
3. SPSS Base 11.0 (Graduate Pack): Applications Guide and CD-ROM, 2002
-must be purchased at CSUS Bookstore in computer department.
4. Additional readings will be distributed and assigned throughout the semester

Outline of Topics and Assignments

PART 1: CONCEPTUALIZING AND DESIGNING QUANTITATIVE RESEARCH

- **January 25**

ASSIGNMENTS:

- Introduction and course overview
- Identify and discuss possible research topics
- Distribute reading for next week

NO READING

- **February 1**

REQUIRED READINGS:

Distributed last week

ASSIGNMENTS:

- In-class exercise- developing a quantitative research design
- In-class exercise- critiquing quantitative research
- distribute quantitative article to critique (due February 8)

- **February 8**

REQUIRED READINGS:

Quantitative article 1

ASSIGNMENTS:

- **Article Critique 1 Due (3-5 page double-spaced)**
- In-class exercise; developing research questions
- Using secondary data sets

- **February 15**

REQUIRED READINGS:

Pollock, Introduction
Pollock, chp1- Introduction to SPSS
Pollock, chp2- Description statistics

ASIGNMENTS:

- In-class exercise; identifying research variables using the I-E-O model.
- getting familiar with the Pollock data.

- learning SPSS
- Pollock, chp2 exercise due.
- identifying potential dependent variables

PART 2: DESCRIPTIVE ANALYSIS

- **February 22**

REQUIRED READINGS:

Pollock, chp3- Making Comparisons

Pollock, chp4- Transforming variables in NES2000.sav

ASSIGNMENTS:

-2 page typed POLICY RESEARCH PROPOSAL DUE

-students will spend five minutes describing and explaining their proposal to the class for feedback.

- Pollock, chp3 exercise due

- Pollock, chp4 exercise due

- **March 1**

REQUIRED READINGS:

Pollock, chp5- Making controlled comparisons

Pollock, chp6- Making Inferences about sample means

ASSIGNMENTS:

-Pollock, chp5 exercises due.

-In-class assignment; Pollock exercise chp6.

-distribute quantitative article to critique (due March 8)

- **March 8**

REQUIRED READINGS:

Pollock, chp7- Chi-square and measures of association

Quantitative article 2

ASSIGNMENTS:

-Article Critique 2 Due (3-5 page double-spaced)

-In-class assignment; Pollock exercise chp7.

- **March 15**

REQUIRED READINGS:

Allison, chp1- What is multiple regression

Review Pollock chp1-7 for midterm

ASSIGNMENTS:

MIDTERM ASSESSMENT

- **March 21 No Class, Spring Break**

PART 3: REGRESSION ANALYSIS

- **March 29**

REQUIRED READINGS:

Pollock, chp8- Correlation and regression

Allison, chp2- How do I interpret multiple regression results?

Allison, chp3- What can go wrong with multiple regression

ASSIGNMENTS:

-Draft of Literature Review Due

-In-class assignment; Pollock exercise chp8.

- **April 5**

REQUIRED READINGS:

Allison, chp4- How do I run a multiple regression?

Allison, chp5- How does bivariate regression work?

Allison, chp6- What are the assumptions of multiple regression?

- **April 12 (No Class)**

REQUIRED READINGS:

Pollock, chp9- Dummy Variables and interaction effects

Allison, chp7- What can be done about multicollinearity?

ASSIGNMENTS:

-Pollock exercise chp9.

- **April 19**

REQUIRED READINGS:

Allison, chp8- How can multiple regression handle nonlinear relationships?

Allison, chp9- How is multiple regression related to other statistical techniques

ASSIGNMENTS:

-Pollock exercise chp9 due

-Draft of Methodology Section Due

- **April 26**

REQUIRED READINGS:

Independent research reading for final papers

-We will not meet formally as a class this week. Instead you will be required to meet with me individually to discuss the progress of your statistical analysis for your final papers.

- **May 3**

Final student presentations

- **May 10**
Final student presentations

FINAL PAPERS DUE TUESDAY MAY 17 IN MY OFFICE BY 6PM!