

**PPA207: Quantitative Research Methods  
Spring, 2003**

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

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**Office Hours  
Tuesdays and Thursdays 4-5:30pm**

### **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 governmental policies.

#### **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. Understand how to summarize, compile, interpret, and report quantitative data; and
6. 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 – 25%
2. Midterm Assessment – 25%
3. Final presentation and course assignments – 25%
4. Final paper – 25%

### Classroom Participation

Classroom participation includes attendance, weekly class discussion, prepared questions or comments, in-class activities and student presentations. Missing more than two class sessions **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.

**Remember, class participation is 25% of the grade!**

### 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 19**.

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

### Final paper

Final papers (15-20 pages, dbl-spaced) are due finals week. Paper topics open but should be approved by week 3. A two-page prospectus for final papers is due on week 3, but can be turned in earlier for approval. I also 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 your paper, you will be required to include at least **10** references relevant to your research topic.

### **Required Texts**

1. John W. Creswell. (2002). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, Second Edition. Sage Publications. Thousand Oaks.
2. Leo H. Kahane (2001). Regression Basics. Sage Publications: Thousand Oaks.
3. Phillip H. Pollock (2002). An SPSS Companion to Political Analysis. CQ Press: Washington.
4. SPSS Base 11.0 (Graduate Pack): Applications Guide and CD-ROM, 2002  
-must be purchased at CSUS Bookstore in computer department.

### **Outline of Topics and Assignments**

#### **PART 1: CONCEPTUALIZING AND DESIGNING QUANTITATIVE RESEARCH**

- **January 29**

*Introduction and course overview; Identify possible research topics*

*NO READINGS*

- **February 5**

*REQUIRED READINGS:*

*Creswell chp1- A framework for design*

*Creswell chp2- Review of the literature*

*Creswell chp3- Writing strategies and ethical considerations*

*ASSIGNMENTS:*

*-In-class exercise- develop a research design*

*-In-class exercise- critiquing quantitative research*

*-distribute quantitative article to critique (due February 19)*

- **February 12**

*REQUIRED READINGS:*

*Creswell, chp4- The introduction*

*Creswell, chp5- The purpose statement*

*Creswell, chp6- Research questions and hypothesis*

*Creswell, chp7- The use of theory*

*ASSIGNMENTS:*

***-2 page typed POLICY RESEARCH PROPOSAL DUE***

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

*-In-class exercise; developing research questions*

- **February 19**

*REQUIRED READINGS:*

*Creswell, chp8- Definitions, limitations, and significance*

*Creswell, chp9- Quantitative methods*

*ASSIGNMENTS:*

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

*-present article critiques in class*

*-In-class exercise; identifying research variables using the I-E-O model.*

**PART 2: DESCRIPTIVE ANALYSIS**

- **February 26**

*REQUIRED READINGS:*

*Pollock, Introduction*

*Pollock, chp1- Introduction to SPSS*

*Pollock, chp2- Description statistics*

*ASSIGNMENTS:*

***-2 page typed DRAFT OF METHODS SECTION DUE***

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

*-learning SPSS, computer exercise; if possible, please bring laptop that has SPSS on it.*

- **March 5**

*REQUIRED READINGS:*

*Pollock, chp3- Making Comparisons*

*Pollock, chp4- Transforming variables in NES2000.sav*

*Pollock, chp5- Making controlled comparisons*

*ASSIGNMENTS:*

*-Pollock chp2 exercises due.*

*-In-class assignment; Pollock exercise chp3.*

- **March 12**

*REQUIRED READINGS:*

*Pollock, chp6- Making Inferences about sample means*  
*Pollock chp7- Chi-square and measures of association*

*ASSIGNMENTS:*

*-Pollock chp4 exercises due.*  
*-In-class assignment; Pollock exercise chp5.*

- **March 19**

*NO READINGS*

*ASSIGNMENTS:*

*-Pollock chp6 exercises due.*

**MIDTERM ASSESSMENT**

**PART 3: REGRESSION ANALYSIS**

- **March 26**

*REQUIRED READINGS:*

*Kahane, chp1- An introduction to the linear regression model*

*Kahane, chp2- The least-square estimation method: fitting lines to data*

*Kahane, chp3- Model Performance and Evaluation*

- **April 2**

*REQUIRED READINGS:*

*Pollock, chp8- Correlation and regression*

*Kahane, chp4- Multiple regression analysis*

*ASSIGNMENTS:*

*-In-class assignment; Pollock exercise chp8.*

- **April 9**

*REQUIRED READINGS:*

*Pollock, chp9- Dummy Variables and interaction effects*

*Kahane, chp5- Nonlinear, dummy, interaction, and time variables*

*ASSIGNMENTS:*

*-In-class assignment; Pollock exercise chp9.*

- **April 23 (No class scheduled for this day)**

- **April 30**

*REQUIRED READINGS:*

*Astin and Dey- Casual Analytic Modeling via Blocked Regression Analysis  
(CAMBRA): An Introduction with Examples  
Kahane, chp6- Some common problems in regression analysis*

- **May 7**

*Final student presentations*

- **May 14**

*Final student presentations*

**Final Papers Due Monday May 19**