Introduction to Research Methods

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*C*lassroom & Lab : 1-317

*T*ime: MTuWTh 10:00 - 11:15AM
      MTuWTh 11:15AM - 12:15PM

*W*WW: http://marioguerrero.info/courses/pls205

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*O*ffice: Building 94, Room 316

*O*ffice Hours: TuW 12:15 - 2:15PM

1 Course Description

This course is an introduction to research in political science. Political science is one of the many disciplines found in the broader academic area of social science. As social scientists, professors in the discipline are expected to act as researchers, developing their own area of expertise within one of the many subfields of political science. Like the hard sciences, social science researchers approach their work using the scientific method. This approach is quite different than the advocacy approach that politicians, interest groups, and citizens use when making policy-related appeals to government. Examining political phenomena entails an appreciation of how questions are asked, clearly answering questions, and drawing inferences using research methodology.

Using a hands-on, learn-by-doing approach, this course is intended to give you the tools and training to undertake research in political science. At the completion of the course, you will have the knowledge of how to complete your own original research project. In addition, this course will give students a fundamental appreciation of the academic work assigned as readings in other political science classes. You should be able to read and understand advanced political science research and critically assess the weaknesses and drawbacks of the approaches that scholars choose to take in their respective studies. A significant portion of this class is also dedicated to statistical analysis using SPSS, a user-friendly computer program that is similar to Microsoft Excel.

This course is fundamentally different than any other class you will take in the department. The skills you develop in this course are important for understanding the academic discipline, but these skills are becoming increasingly important in order to work effectively in various professions: government, policy, legal, business, or journalistic. At this

culmination of this course, you will be asked to present an effective argument, drawing on library research skills to analyze quantitative data. One of the most important goals of good social science research is communicating the results of your work clearly and professionally to colleagues, policymakers, and citizens. This class will give you the opportunity to further develop these skills and has been described as both challenging and demanding. Nonetheless, given the importance of these objectives, we hope this will be a rewarding experience.

2 Required Text

Salkind, N. J. 2017. *Statistics for People Who (Think They) Hate Statistics.* 6th Edition. Sage Publications.

3 Course Requirements

Your final grade is based on four different components. These components are designed to give a fair and comprehensive assessment of your progress in this course.

Percentage	Assignment
10%	*A*ttendance and Participation: Students are expected to be present, on time, and actively engage in classroom activities. Each lecture counts as a point. You lose 1/2 point for tardiness. Absences and tardiness will not be excused under any circumstances.
25%	*Q*uizzes and Activities: This component of your grade is split between two different types of assignments: five unannounced in-class quizzes and five in-class activities. Quizzes will be based on both recent lectures and assigned reading. Quizzes are independent and closed notes. Activities will be based on the topic under discussion in lecture. Activities will be group-based and open notes. Quizzes and activities will be graded in five sets, each worth 5 percentage points each. For each 5-point set, the proportion of the grade for the quiz and activity is based on your performance on the quizzes: **Quiz Score** / **Quiz Percentage** / **Activity Percentage** 100-91% / 80 / 20 90-81% / 60 / 40 80-71% / 40 / 60 70-61% / 20 / 80 60% and below / 0 / 10
30%	*P*racticums: Two practicums, in-class exams using SPSS, will test your application of the various techniques, tools, and comprehension of the program. The first practicum is on **W**ednesday, June 27. The second practicum is on **M**onday, July 16.
35%	*P*aper: The paper (10-12 pages) is an original research paper, where you will ask and answer your own question using data analysis. The paper is due on **T**uesday, July 24.

4 Communication

Office hours are great for getting detailed answers and clarification. I encourage **e**veryone to come to office hours at some point in the quarter. It will help me to get to know you better and it will help you do well in this class. Office hours have been statistically proven to help your grade.

4.1 Methods of Communication

Whenever I am in my office (94-316), I am happy to meet with you. I am guaranteed to be in my office during dedicated office hours, but you can also schedule an appointment so we can meet when it is convenient for you. Feel free to contact me online via Facebook chat (marioguerrero). I am frequently online and will be happy to answer your questions whenever I can.

5 Academic Honesty

Cal Poly Pomona takes academic honesty very seriously. Cheating is not tolerated and students will be held accountable for cheating on an assignment or an exam. Violators will receive an F in the course and then be referred to the Dean of Students and Judicial Affairs for further disciplinary action that may result in suspension. There should be no reason for you to feel compelled to cheat in this class. If you feel overwhelmed with the course, please do not hesitate to contact me for help.

6 Special Assistance

A wide range of services is available to support students in their efforts to meet the course requirements. Cal Poly Pomona offers counseling for personal and academic concerns at the Counseling and Psychological Services at no additional charge to students (Building 66-110, 909-869-3220). Additionally, Student Health Mental Services (Building 46, 909-869-3070) provides a range of services to help students identify and overcome obstacles stemming from financial, emotional, social, or family situations. The Disablility Resource Center (Building 9-103, 909-869-3333) also provides academic support services to eligible students with temporary and permanent disabilities. You must register with DRC prior to receiving these accommodations.

Separately from these services, the University Writing Center (Library 2921) provides assistance to students writing papers. The Writing Center offers students 30-minute one-on-one appointments. Writing Center tutors specialize in reading for content, but will also read papers for grammar and style. Please utilize this resource if you know you need help with your writing.

7 Course Schedule

Please note that the following schedule is subject to change throughout the quarter.

<div align="center">1 INTRODUCTION TO RESEARCH METHODS</div>

Monday, June 18, 2018 Course Introduction. What is political science? What is research methods? What will be expected of me?

Readings   Salkind, Chapter 1.
Lohr, S. 2008. "For Today's Graduate, Just One Word: Statistics" *New York Times*, 5 August.

Tuesday, June 19, 2018 Scientific Research. What do academic researchers do? What is the scientific method? What are good research questions? How do you develop hypotheses? What are independent variables? What are dependent variables?

Readings   Salkind, Chapter 7.

Wednesday, June 20, 2018 Concepts and Measurement. What is causality? What is the difference between a concept and its measurement?

Readings   Salkind, Chapter 6.
Lean, G. 2008. "Warning: Using a mobile phone while pregnant can seriously damage your baby." *The Independent*, 18 May.

Thursday, June 21, 2018 Descriptive Statistics. How do researchers describe the data that they are working with? What's the difference between mean, median, and mode? What about standard deviation and variance?

Readings   Salkind, Chapter 2.
Salkind, Chapter 3
Salkind, Chapter 4

ACTIVITY #1 DUE: THURSDAY, JUNE 21

2 THE BASICS OF STATISTICS

Monday, June 25, 2018 Statistical Inference. What is statistical signifiance and what does it have to do with probability? What are z-scores and how do we calculate them?

Readings   Salkind, Chapter 8.
Salkind, pp. 177-196.

Tuesday, June 26, 2018 Statistical Inference, Part II. How do we determine statistical significance?

Readings   Salkind, pp. 188-195.
Salkind, Chapter 10.

ACTIVITY #2 DUE: TUESDAY, JUNE 26

Wednesday, June 27, 2018 Practicum #1.

Readings   None

Thursday, June 28, 2018 Research Design I. Case studies, interviews, fieldwork, theoretical arguments. How do we set up research design? What is sampling?

Readings   Keiger, D. 2007. "The Number." *Johns Hopkins Magazine*, February.

3 RESEARCH DESIGN

Monday, July 2, 2018 Research Design II. Surveys, content analysis, data analysis, experimental research. How do we work with data?

Readings   No Readings

Tuesday, July 3, 2018 T-Tests. How do we determine if there are differences between two groups of individuals? How do we calculate a t-test?

Readings   Salkind, Chapter 11.
Salkind, Chapter 12.

Wednesday, July 4, 2018 No class. Fourth of July Holiday.

Readings   None.

Thursday, July 5, 2018 No class. Fourth of July Holiday.

Readings   None.

4 FORMAL STATISTICAL TESTING

Monday, July 9, 2018 ANOVAs. How do we test the differences between completely different groups of individuals? How do we calculate a ANOVA?

Readings   Salkind, Chapter 13.
Salkind, Chapter 14.

ACTIVITY #3 DUE: Monday, July 9

Tuesday, July 10, 2018 Chi-square. What does a chi-square test determine? How do we calculate chi-square? When is chi-square appropriate to use?

Readings   Salkind, Chapter 17.

Wednesday, July 11, 2018 Correlations. What is a correlation coefficient? What is difference between correlation and causation?

Readings   Salkind, Chapter 5.
Salkind, Chapter 15.

ACTIVITY #4 DUE: Wednesday, July 11
Thursday, July 12, 2018 Regression. What is a regression? Why is a regression particularly powerful in statistics?

Readings   Salkind, Chapter 16.

5 COURSE CONCLUSION

Monday, July 16, 2018 Practicum #2.

Readings No Readings

Tuesday, July 17, 2018 Catch-Up and Open Lab.

Readings No Readings.

Wednesday, July 18, 2018 Catch-Up and Open Lab.

Readings No Readings.

Thursday, July 19, 2018 Course Conclusion.

Readings No Readings.

ACTIVITY #5 DUE: Thursday, July 19
PAPER DUE: Tuesday, July 24, 10:00AM
FINAL EXAM: No final examination