INTL 4000	Research Design/Quant. Analysis in IA	Spring 2017
T, TR 11:00-12:15	Correll Hall 124	Prerequisites/Corequisites: None
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Office Hrs: Wed. 2-4 p.m.	Office: Candler 319	

Course Description

This course introduces students to philosophy of science, research design, and quantitative analysis as applied to the study of comparative and international politics. Broad topics covered include epistemology, conceptualization, measurement, causal theories in social science, basic descriptive and inferential statistics, data visualization, measures of bivariate association, and multivariate linear regression.

Course Objectives

This course exposes students to basic concepts related to theory, research design, and quantitative analysis in the social sciences. The first part (1/3) of the course examines topics from the philosophy of science and their relation to research on international and comparative politics. The second part (2/3) of the course familiarizes students with basic concepts from statistics, and introduces them to the use of statistical software for data analysis and visualization. Students will develop an understanding of the basic components of social scientific research, including conceptualization and quantitative measurement, as well as how causal theories are constructed and tested in the social sciences. In the latter part of the course students will learn to perform simple data analysis, beginning with practical issues of data management. By the end of the course students will be comfortable performing analysis to examine relationships between variables, including cross-tabulation and linear regression. A large portion of students' grades will be determined by lab exercises that involve performing data analysis themselves.

Required Reading

Russell, Bertrand. 1912. *The Problems of Philosophy*. (selected chapters available on course website)

Chalmers, A.F. 1976. *What is this thing called Science?* (selected chapters available on course website)

Agresti, Alan and Barbara Finlay. 1997. *Statistical Methods for the Social Sciences.* 3rd ed. Prentice Hall (you must buy this one, but it's and old edition and should be cheap)

Monogan III, James E. 2015. *Political Analysis Using R.* Springer. (electronic copy available for free through UGA library website)

All journal articles are available through the library's website.

Grades

Your grades will be based on three exams (including the final exam) and four lab exercises/homework assignments. Your final grade will be determined as follows:

Exam 1: 20%

Exam 2: 20%

Final Exam: 20%

Lab Assignment 1: 10%

Lab Assignment 2: 10%

Lab Assignment 3: 10%

Lab Assignment 4: 10%

Grade Distribution:

90-100: A	80-89: B	70-79: C
60-69: D	59 and below: F	

Examinations

The first exam will be multiple choice with two essay questions and will involve no quantitative reasoning. The second exam will consist of 10-20 questions that will involve quantitative reasoning and some actual math. For this exam I will provide a sheet of formulas and other helpful things, and you will be allowed to use a calculator. All exams will cover the lecture as well as assigned readings. The final exam will be cumulative and will be a blend of multiple choice, essay, and quantitative reasoning questions. For the final I will provide a formula sheet.

Lab Exercises/Homework Assignments

We will have 6 lab sessions throughout the semester with 4 attendant assignments (2 of the assignments will be spread out across 2 lab sessions). The assignments will require you to conduct basic statistical analysis using a statistical software program called R. Lab time will be used to complete the assignments, and I will be available in the lab to answer questions. These assignments will all be due Friday by 5 p.m. the week they are assigned, so you will have some time outside of the lab to complete them if necessary.

Makeup Exams

An absence from any exam will result in a zero for that exam. *Makeup exams will not be given for any reason. However, the lowest exam grade will be dropped when calculating final grades.* This means that everyone may miss one exam and not be penalized.

Course Website and Email

Can be accessed through www.elc.uga.edu. You will need to check this site regularly for any syllabus updates or for posted readings. Announcements may also be sent out via email. It is your responsibility to check blackboard for syllabus updates.

Syllabus Change Policy

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Students with Disabilities

Students with disabilities who require reasonable accommodations in order to participate in course activities or meet course requirements should contact the instructor or designate during regular office hours or by appointment.

University Honor Code/Academic Honesty Policy

As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at www.uga.edu/honesty. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Withdrawal Policy

Students who withdraw from the class before the withdrawal deadline are assigned a grade based on their performance (pass/fail) in the class up the point of withdrawal. This means that students who are failing will be assigned a "WF" grade even if they withdraw before the deadline. Students who withdraw from the class after the withdrawal deadline are automatically assigned a "WF" grade upon withdrawal.

Reading Schedule

Week 1: Introduction

Jan. 5: Syllabus review, class overview. No reading.

Week 2: Empiricism in Philosophy and Science

Jan 10: Russell, chap 1.

Chalmers, chap 1.

Jan 12: Munck, Gerardo L. and Jay Verkuilen. 2002. "Conceptualizing and Measuring Democracy: Evaluating Alternative Indices." *Comparative Political Studies* 35(1): 5-34.

Week 3: Induction and the Limits of Empiricism

Jan 17: Russell, chap 6.

Chalmers, chap 4.

Jan 19: Oneal, John R. and Bruce M. Russett. 1997. "The Classical Liberals Were Right Democracy, Interdependence, and Conflict, 1950-1985." *International Studies Quarterly* 41(2): 267-293.

Week 4: Scientific Theories and Falsificationism

Jan 24: Chalmers, chap 5.

Jan 26: Waltz, Kenneth. "Anarchic Orders and Balances of Power." In Robert O. Keohane (ed.), *Neorealism and its Critics*. (available on course website)

Week 5: Causality and Theory in Social Science

Jan 31: Little, Daniel. *Varieties of Social Explanation*, chaps 2 and 3 (available on course website)

Feb 2: Platt, John R. "Strong Inference." *Science* 16 October 1964, Vol. 146, Number 3642.

Schultz, Kenneth A. 1999. "Do Democratic Institutions Constrain or Inform? Contrasting Two Institutional Perspectives on Democracy and War." *International Organization* 53(2): 233-266.

Week 6: Introduction to Data Analysis

Feb 7: Exam 1

Feb 9: Agresti and Finlay, chap 1.

Monogan, chaps 1 and 2.

Week 7: Variables, measurement, and descriptive statistics

Feb 14: Agresti and Finlay, pp. 11-15, chap 3.

Feb 16: Monogan, pp. 33-40 and chap 4. Class meets in Candler basement computer lab.

Week 8: Distributions and statistical inference

Feb 21: Agresti and Finlay, chap 4.

Feb 23: ISA conference, no class

Week 9: Distributions and statistical inference (cont'd)

Feb 28: Agresti and Finlay, chap 5.

Mar 2: Agresti and Finlay, chap 6.

SPRING BREAK: MARCH 6-10

Week 10: Comparisons between groups, contingency tables

Mar 14: Agresti and Finlay, chap 7.

Mar 16: Agresti and Finlay, chap 8.

Week 11: Comparisons between groups, contingency tables

Mar 21: Monogan, chap 5. Class meets in Candler basement computer lab.

Mar 23: No reading. Class meets in Candler basement computer lab.

Week 12: Covariance, correlation, linear regression

Mar 28: Exam 2

Mar 30: Agresti and Finlay, chap 9.

Week 13: More about linear regression

Apr 4: Agresti and Finlay, chapter 10.

Apr 6: No reading. Class meets in Candler basement computer lab.

Week 14: Multivariate linear regression

Apr 11: Agresti and Finlay, chapter 11.

Apr 13: Monogan, chap. 6.

Week 15: Multivariate linear regression

Apr 18: No reading, class meets in Candler basement computer lab.

Apr 20: No reading, class meets in Candler basement computer lab.

Week 16: Course review

Apr 25: Review session for final exam.

Apr 27: No class

FINAL EXAM: Thursday, May 4, 12:00 - 3:00 p.m.