INTL 4000	Research Design and Quant. Analysis	Spring 2024
T/Tr 9:35-10:50	221 LeConte Hall	Pre/Corequisites: None
Danny Hill	Dept. of International Affairs	dwhill@uga.edu
Office Hrs: By appointment	Office: 319 IA Building	

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. 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 concepts related to theory, research design, and quantitative analysis in the social sciences. The first few weeks of the course examine topics from the philosophy of science and their relation to research on international and comparative politics. The rest 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 fundamental components of social scientific research, including conceptualization and quantitative measurement, as well as how causal theories can be constructed and tested in the social sciences. In the latter part of the course students will learn to perform 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 data analysis.

Required Texts

Agresti, Alan and Barbara Finlay. 1997. *Statistical Methods for the Social Sciences.* Prentice Hall.

The most current version of this textbook is the 5th edition, which costs around $100. The 3rd and 4th editions cost about $5 and $25, respectively. You may purchase any of these editions. This book is not available through the bookstore. You will want to have a copy of the book by January 25th at the latest, so order one soon.

Grades

Your grades will be based on two exams (midterm and final) and four lab exercises/homework assignments. Each exam will count towards 20% of your final grade and each lab assignment will count towards 15% of your final grade.

Grade Distribution (note that I do not assign minus grades):

90 - 100: A	
86 - 89: B+	80 - 85: B
76 - 79: C+	70 - 75: C
66 - 69: D+	60 - 65: D
below 60: F	

Examinations

Exams will consist of 10-15 questions that will involve some quantitative reasoning and math. For exams I will provide necessary handouts, and you will be allowed to use a calculator. All exams will cover the lecture as well as assigned readings. The final exam will have the same format as the midterm exam. The midterm will take place on Thursday, February 29th, and the final exam will be on Thursday, May 2nd at 8 a.m.

Lab Exercises/Homework Assignments

There will have to complete four lab assignments throughout the semester. For each lab assignment we will have two lab sessions which will take place during our normal class meeting time. *For lab sessions, we will meet in the computer lab on the basement floor of the IA building.* These assignments will require you to conduct statistical analysis using a (free) software program called R. Each lab assignment will begin on a Tuesday and be due on Thursday by 5 p.m., so you will have some time outside of class to work on them if necessary. Lab assignment due dates are: January 25th, February 22nd, April 4th, and April 18th (these dates are also indicated on the schedule below). *Don't forget that these meetings will be held in the IA building computer lab rather than Sanford Hall.*

Course Website and Email

Can be accessed through www.elc.uga.edu. You will need to check this site regularly for any syllabus updates, posted readings, and other materials I will post. Announcements may also be sent out via email.

Syllabus Change Policy

The course syllabus is a general plan for the course; deviations may be necessary. I'll let you know if the schedule changes.

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.

Well-being, Mental Health, and Student Support

If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit their webpage. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services. UGA has several resources to support your well-being and mental health. Find out more here.

Counseling and Psychiatric Services (CAPS) is your go-to, on-campus resource for emotional, social and behavioral-health support. See also the Therapy Assistance Online Support site (TAOS), or call 706-542-2273 for 24/7 support . For crisis support see this page. The University Health Center offers FREE workshops, classes, mentoring and health coaching led by licensed clinicians or health educators. See here for more.

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 (Thursday, March 21st) 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

Course introduction, concepts and measurement

Tuesday Jan 9: Syllabus review, class overview. No reading.

Thursday Jan 11: Munck, Gerardo L. and Jay Verkuilen. 2002. "Conceptualizing and Measuring Democracy: Evaluating Alternative Indices." *Comparative Political Studies* 35(1): 5-34.

Deductive and inductive inference, intro to measurement and descriptive statistics

Tuesday Jan 16: 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.

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.

Thursday Jan 18: Agresti and Finlay, pp. 12-17, chap 3.

Measurement and descriptive statistics, cont'd

Tuesday Jan 23: Agresti and Finlay, pp. 12-17, chap 3.

Lab session in IA building computer lab, Exercise 1 begins

Thursday Jan 25: No reading

Lab session in IA building computer lab, Exercise 1 due by 5 p.m.

Probability distributions and hypothesis tests

Tuesday Jan 30: Agresti and Finlay, chap 4.

Thursday Feb 1: Agresti and Finlay, chap 4.

Tuesday Feb 6: Agresti and Finlay, chap 5

Thursday Feb 8: Agresti and Finlay, chap 5.

Tuesday Feb 13: Agresti and Finlay, chap 6.

Thursday Feb 15: Agresti and Finlay, chap 6.

Tuesday Feb 20: Agresti and Finlay, chap 6.

Lab session in IA building computer lab, Exercise 2 begins

Thursday Feb 22: No reading

Lab session in IA building computer lab, Exercise 2 due by 5 p.m.

Tuesday Feb 27: No reading, review for Exam 1

Thursday Feb 29: Exam 1

Tuesday Mar 5: Spring Break

Thursday Mar 7: Spring Break

Tests for statistical association - comparisons between groups

Tuesday Mar 12: Agresti and Finlay, chap 7
Thursday Mar 14: Agresti and Finlay, chap 7

Tests for statistical association - contingency tables

Tuesday Mar 19: Agresti and Finlay, chap 8
Thursday Mar 21: Agresti and Finlay, chap 8

Linear regression analysis

Tuesday Mar 26: Agresti and Finlay, chap 9
Thursday Mar 28: Agresti and Finlay, chap 9

Tuesday Apr 2: Agresti and Finlay, chap 9
Lab session in IA building computer lab, Exercise 3 begins
Thursday Apr 4: No reading
Lab session in IA building computer lab, Exercise 3 due by 5 p.m.

Tuesday Apr 9: Agresti and Finlay, chap 10 and 11
Thursday Apr 11: Agresti and Finlay, chap 14

Tuesday Apr 16: No reading
Lab session in IA building computer lab, Exercise 4 begins
Thursday Apr 18: No reading
Lab session in IA building computer lab, Exercise 4 due by 5 p.m.

Tuesday Apr 23: No reading, review for Final Exam
Thursday Apr 25: No class meeting

FINAL EXAM: Thursday May 2, 8 a.m. – 11 a.m.