INTL 4000	Research Design and Quant. Analysis	Spring 2022
M/W/F 10:20-11:10	Caldwell Hall 107	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.

COVID considerations

The university has chosen to adopt a lax policy of encouraging masks and vaccines but not requiring them, and allowing rooms to be filled to maximum occupancy so that distancing is impossible. I understand that some of you may not feel comfortable attending class in person, so I will emphasize that *no one is required to attend class in-person*. Students may access and complete all components of this course online. I will try to make students' experiences in the course as uniform as possible. Students who choose to attend remotely must do so synchronously (you have to log on during class).

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. You should buy the 3rd or 4th edition, which should both be available online for less than $20. This book is not available through the bookstore.

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

Exams will consist of 10-15 questions that will usually 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. Exams will be completed online through the ELC course site. The exam schedule is as follows:

Exam 1: Friday Feb 25
Exam 2: Monday April 4
Final Exam: Friday May 6

On each of these dates an online "quiz" will be available on the ELC course site beginning at 8 a.m. and will close at 8 p.m. There are no time restrictions once you begin the quiz, other than the

8 p.m. deadline. The final exam will also be online and the format will be the same as the other exams. The final exam is not cumulative.

Lab Exercises/Homework Assignments

We will have several lab sessions throughout the semester and four lab assignments (one of the assignments will be spread out across two lab sessions). The assignments will require you to conduct statistical analysis using a (free) software program called R. You will begin each assignment during a lab session, and I will be available during the lab to answer questions. You will have at least 3 days to complete assignments, so you will have some time outside of class to complete them if necessary. Check the schedule below for start/due dates for lab assignments.

Lab Exercises during COVID

Normally we would meet in an actual computer lab to begin your lab assignments, but since we cannot do that safely at the moment you will need your own laptop computer to complete lab assignments, and should you choose to attend class in-person will need to bring a laptop and log in to Zoom during class. Being able to share screens and show you what I am doing will allow me to help you while staying at a safe distance. If you attend online you must attend these meetings synchronously so that you can ask questions in real time.

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 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 (Thursday, March 24th) 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

Monday Jan 10: Syllabus review, class overview. No reading.

Concepts and measurement

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

Friday Jan 14: Russell, Bertrand. 1912. *The Problems of Philosophy*. Chap 6 (available on course website)

Deductive and inductive inference

Monday Jan 17: Martin Luther King Jr. Day, no class

Wednesday 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.

Friday Jan 21: Platt, John R. "Strong Inference." *Science* 16 October 1964, Vol. 146, Number 3642.

Monday Jan 24: Schultz, Kenneth A. 1999. "Do Democratic Institutions Constrain or Inform?

Contrasting Two Institutional Perspectives on Democracy and War." *International Organization* 53(2): 233-266.

Measurement and descriptive statistics

Wednesday Jan 26: Agresti and Finlay, chap 1.

Friday Jan 28: Agresti and Finlay, chap 1.

Monday Jan 31: Agresti and Finlay, pp. 11-15, chap 3.

Lab session, Exercise 1 begins

Wednesday Feb 2: Agresti and Finlay, pp. 11-15, chap 3.

Lab session, Exercise 1 due by 5 p.m.

Probability distributions and hypothesis tests

Friday Feb 4: Agresti and Finlay, chap 4.

Monday Feb 7: Agresti and Finlay, chap 4.

Wednesday Feb 9: Agresti and Finlay, chap 5

Friday Feb 11: Agresti and Finlay, chap 5.

Monday Feb 14: Agresti and Finlay, chap 5.

Wednesday Feb 16: Agresti and Finlay, chap 6.

Friday Feb 18: Agresti and Finlay, chap 6.

Monday Feb 21: Agresti and Finlay, chap 6.

Wednesday Feb 23: No reading, review for Exam 1

Friday Feb 25: Exam 1 (online)

Monday Feb 28: No reading

Lab session

Wednesday Mar 2: No reading

Lab session

Tests for statistical association - comparisons between groups

Friday Mar 4: Agresti and Finlay, chap 7

Monday Mar 7: Spring Break

Wednesday Mar 9: Spring Break

Friday Mar 11: Spring Break

Monday Mar 14: Agresti and Finlay, chap 7

Wednesday Mar 16: Agresti and Finlay, chap 7

Lab session, Exercise 2 begins

Friday Mar 18: Agresti and Finlay, chap 7

Lab session, Exercise 2 due by 5 p.m.

Tests for statistical association - contingency tables

Monday Mar 21: Agresti and Finlay, chap 8

Wednesday Mar 23: Agresti and Finlay, chap 8

Friday Mar 25: Agresti and Finlay, chap 8

Lab session, Exercise 3 begins

Monday Mar 28: No class meeting

Wednesday Mar 30: No reading

Lab session, Exercise 3 due Thursday, Mar 31 by 5 p.m.

Friday Apr 1: No reading, review for Exam 2

Monday Apr 4: Exam 2 (online)

Linear regression analysis

Wednesday Apr 6: Agresti and Finlay, chap 9

Friday Apr 8: Agresti and Finlay, chap 9

Monday Apr 11:Agresti and Finlay, chap 9

Wednesday Apr 13: Agresti and Finlay, chap 10

Friday Apr 15: Agresti and Finlay, chap 10

Monday Apr 18: Agresti and Finlay, chap 11

Wednesday Apr 20: Agresti and Finlay, chap 11

Friday Apr 22: Agresti and Finlay, chap 14

Monday Apr 25: Agresti and Finlay, chap 14

Lab session, Exercise 4 begins

Wednesday Apr 27: Agresti and Finlay, chap 14

Lab session

Friday Apr 29: No reading.

Lab session, Exercise 4 due at 5 p.m.

Monday May 2: No reading, review for Final Exam

FINAL EXAM: Friday May 6, 8 a.m. − 8 p.m. (online)

COVID-19 Information for Students

If you have underlying health conditions or are uncomfortable attending class in person for any reason, please contact me.

Face coverings

Following guidance from the University System of Georgia, face coverings are recommended for all individuals while inside campus facilities. I'll be wearing one.

How can I obtain the COVID-19 vaccine?

Please get vaccinated if you haven't already. University Health Center is scheduling appointments for students through the UHC Patient Portal. Learn more here. The Georgia Department of Health, pharmacy chains and local providers also offer the COVID-19 vaccine at no cost to you. To find a COVID-19 vaccination location near you, please go here. In addition, the University System of Georgia has made COVID-19 vaccines available at 15 campuses statewide and you can locate one here.

What do I do if I have COVID-19 symptoms?

Students showing COVID-19 symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8 a.m.-5p.m.). Please DO NOT walk-in. For emergencies and after-hours care, see the information here.

What do I do if I test positive for COVID-19?

If you test positive for COVID-19 at any time, either through a PCR test, an Antigen test, or a home test kit, you are required to report it through the DawgCheck Test Reporting Survey. Follow the instructions provided to you when you report your positive test result in DawgCheck.

As of December 29, 2021, when an individual receive a positive COVID-19 test: Everyone,regardless of vaccination status, should stay home for 5 days. If you have no symptoms or your symptoms are resolving after 5 days, you can leave your house and return to class. Continue to wear a mask around others for 5 additional days.

What do I do if I have been exposed to COVID-19?

If you have been exposed (within 6 feet for a cumulative total of 15 minutes or more over a 24-hour period, while you were unmasked) to someone with COVID-19 or to someone with a positive COVID-19 test and you are:

- Boosted, or have become fully vaccinated within the last 6 months (Moderna or Pfizer vaccine) or within the last 2 months (J&J vaccine)

  - You do not need to quarantine at home and may come to class.
  - You should wear a mask around others for 10 days.
  - If possible, get tested on day 5.
  - If you develop symptoms, get tested and isolate at home until test results are received, then proceed in accordance with the test results.

- Unvaccinated, or became fully vaccinated more than 6 months ago (Moderna or Pfizer vaccine) or more than 2 months ago (J&J vaccine) and have not received a booster:

  - You must quarantine at home for 5 days. After that you may return to class but continue to wear a mask around others for 5 additional days.
  - If possible, get tested on day 5.
  - If you develop symptoms, get tested and isolate at home until test results are received, then proceed in accordance with the test results.

You should report the need to quarantine on DawgCheck, and communicate directly with your faculty to coordinate your coursework while in quarantine. If you need additional help, reach out to Student Care and Outreach (sco@uga.edu) for assistance.

Guidelines subject to change

Note that the guidance referenced in this syllabus is subject to change based on recommendations from the Georgia Department of Public Health, or recommendations from people who have no the University System of Georgia, or the Governors Office. For the latest on UGA policy, you can visit this website.

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.