

Research Methods & Statistics – Spring 2019
PS 5002, Section 101
TR 4:45p.m. – 6:00p.m.
Room: BH 108, ED 215

Contact Information

Instructor: Dr. William D. Hicks
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Office Hours: 12:15p.m.-3:00p.m., Tues & Thur

Course Objectives and Learning Outcomes

We examine the application of quantitative methods to political science research in this course. I hope to achieve three separate goals by the end of the semester. First, I want to prepare students to pursue their own research projects using statistics as a means to test hypotheses. Second, I hope to provide students with a sufficient foundation in quantitative methods to prepare them to learn more advanced statistical techniques should they be so inclined. Third, I hope to equip students with the tools necessary to evaluate the merits of existing research using statistical techniques. I split our weekly meetings in this class, spending Tuesdays in the classroom and Thursdays in the lab. By doing so, I aim to provide students with weekly examples of how to analyze “real-world” data on their own.

Required Texts and Materials

Kellstedt, Paul and Guy Whitten. 2013. The Fundamentals of Political Science Research. **Second Edition**. Cambridge: Cambridge University Press.

Exams & Graded Activities

Participation: Students are expected to attend all classes, read all assigned materials, and contribute to class discussions. Each student's participation grade will be based on his or her fulfillment of these tasks. **Absences will negatively affect a student's overall grade.**

Problem Sets: Students are obligated to complete a problem set roughly each week. Each problem set is worth 5 total points. Students lose points for (1) no answering all of the questions, (2) answering the questions with incorrect information, (3) poor writing and grammar, and (4) poor presentation of the results in tables and figures.

Final Exam: This course will conclude with a **take home**, comprehensive exam.

Course Grades

<i>Grading Scale</i>			<i>Grade Requirements</i>		
A	93-100	C	73-76	Participation	10 %
A-	90-92	C-	70-72	Assignments	60 %
B+	87-89	D+	67-69	Final Exam	30 %
B	83-86	D	63-66		
B-	80-82	D-	60-62		
C+	77-79	F	0-59		

Student Conduct

As a community of learners at Appalachian State University, we must create an atmosphere of honesty, fairness, and responsibility, without which we cannot earn the trust and respect of each other. Furthermore, we recognize that academic dishonesty detracts from the value of an Appalachian degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form and will oppose any instance of academic dishonesty. This course will follow the provisions of the Academic Integrity Code, which can be found on the Office of Student Conduct Web Site:

www.studentconduct.appstate.edu

Statement on Student Engagement with Courses

In its mission statement, Appalachian State University aims at “providing undergraduate students a rigorous liberal education that emphasizes transferable skills and preparation for professional careers” as well as “maintaining a faculty whose members serve as excellent teachers and scholarly mentors for their students.” Such rigor means that the foremost activity of Appalachian students is an intense engagement with their courses. In practical terms, students should expect to spend two to three hours of studying for every hour of class time. Hence, a fifteen-hour academic load might reasonably require between 30 and 45 hours per week of out-of-class work.

Disability Support Services

Appalachian State University is committed to making reasonable accommodations for individuals with documented qualifying disabilities in accordance with the Americans with Disabilities Act of 1990, and Section 504 of the Rehabilitation Act of 1973. Those seeking accommodations based on a substantially limiting disability must contact and register with The Office of Disability Services (ODS) at <http://www.ods.appstate.edu/> or 828-262-3056. Once registration is complete, individuals will meet with ODS staff to discuss eligibility and appropriate accommodations.

Religious Observances Policy

Faculty members are required to make reasonable accommodations for students requesting to miss class due to the observance of religious holidays. All ASU students are allowed a minimum of two absences per year for religious observances. Up to two absences for such observances will be excused, without penalty to the student, provided that the student has informed the instructor in the manner specified in the syllabus. Notice must be given by the student to the instructor before the absence occurs and no later than three weeks after the start of the semester in which the absence(s) will occur. Arrangements will be made to make up work missed by these religious observances, without penalty to the student. For the purposes of this policy, ASU defines the term “religious observance” to include religious holidays, holy days, or similar observances associated with a student’s faith that require absence from class. Faculty, at their discretion, may include class attendance as a criterion in determining a student’s final grade in the course. On the first day of class, faculty must inform students of their class attendance policy and the effect of that policy on their final grade; both policies must be clearly stated in the class syllabus.

Syllabus Change Policy

This syllabus is only a guide for the course and is subject to change with advanced notice.

Course Schedule

Week 1. January 15 & 17

Course Introduction

–Kellstedt & Whitten, Chs. 1 & 2

Week 2. January 22 & 24

Research Design, Causality, & Statistics

–Kellstedt & Whitten, Chs. 3 & 4

Week 3. January 29 & 31

Variables, Measuring 'Average,' and Measuring Dispersion

-Kellstedt & Whitten, Ch. 5

-Pollock, Chs. 1 & 2

-Problem set #1 due Monday, February 4

Week 4. February 5 & 7

Probability and Statistical Inference

-Kellstedt & Whitten, Ch. 6

-Pollock, Ch. 6

Week 5. February 12 & 14

Null Hypothesis Testing I

-Kellstedt & Whitten, Ch. 7

-Pollock & Edwards, Chs. 4, 6, 7

-Problem set #2 due Monday, February 18

Week 6. February 19 & 21

Null Hypothesis Testing I

-Kellstedt & Whitten, Ch. 7

-Problem set #3 due Monday, February 25

Week 7. February 26 & 28

Regression I. Bivariate Models

-Kellstedt & Whitten, Ch. 8

-McClendon, Ch. 2

-Pollock & Edwards, p. 131-136

-Problem set #4 due FRIDAY, March 1

Week 8. March 5 & 7

Spring Break

Week 9. March 12 & 14

Regression II. Adding More Variables to the Right Hand Side

-Kellstedt & Whitten, Ch. 9

- McClendon, Ch. 3
- Problem set #5 due Monday, March 18

Week 10. March 19 & 21

- Regression III. Using Dummy Variables
- Kellstedt & Whitten, p. 220-229
- McClendon, Ch. 5
- Pollock & Edwards, p. 149-154
- Problem set #6 due Monday, March 26

Week 11. March 26 & 28

- Regression IV. Non-Additive Effects
- Kellstedt & Whitten, p. 229-232
- McClendon, Ch. 7
- Pollock & Edwards, p. 154-160
- Problem set #7 due Monday, April 1

Week 12. April 2 & 4

- Regression V. Nonlinear Effects
- McClendon, Ch. 6
- Problem set #8 due Monday, April 8

Week 13. April 9 & 11

- Regression VI. Assumptions & Diagnostics
- Berry, Understanding Regression Assumptions
- Problem set #9 due Monday, April 15

Week 14. April 16 & 18

- Binary Choice Dependent Variables I
- Kellstedt & Whitten, p. 247-255
- Long, Ch. 3
- Pollock, Ch. 9

Week 15. April 23 & 25

- [No Class April 23]
- Binary Choice Dependent Variables II

- Long & Freese, Chs. 5 & 6
- Problem set #10 due Monday, April 29

Week 16. April 30

Review

May 7

Final Exam Period for Class (at 4:45p.m.)