METHODOLOGICAL TOOLS FOR PUBLIC POLICY

RPAD/RPOS 316 SPRING 2022 SYLLABUS

ROCKEFELLER COLLEGE OF PUBLIC AFFAIRS AND POLICY DEPARTMENT OF PUBLIC ADMINISTRATION AND POLICY

Instructor: Professor Stephen B. Holt

Meeting schedule: Tuesday, January 25th through Tuesday, May 3rd

Class information: Tuesdays and Thursdays - 1:30 PM to 2:50 PM, Science Library G12

Office hours: Wednesdays or Thursdays 4:00 PM to 5:00 PM; by appointment Office location: Downtown campus, Milne Hall 312; office hours held virtually

Email: sbholt@albany.edu Phone: 518-442-3855

Teaching Assistant: Montserrat Avilla Acosta, email: mavilaacosta@albany.edu; Virtual

Office hours, Fridays 1:00 PM to 3:00 PM

Tutor: Seunghwa OH, email: skim58@albany.edu; Virtual Office Hours: Monday 1:30 PM to 6:30 PM, Tuesday 1:30 PM to 5:30 PM, Thursday 10:30 AM to 3:30 PM, Friday 1:30

PM to 5:30 PM

1 Course description

This course introduces basic statistics in public sector research and public policy decision-making. The emphasis is on exploration of data processing techniques as they relate to statistical analysis and on understanding the proper application of statistics. The objective of this course is to empower students with the capability to critically analyze and understand statistical information. Students will learn how to design a quantitative research, how to do descriptive statistics, and how to conduct inferences based on given data. Upon completion of this course, students should be able to think critically about data, to use graphical and numerical summaries, to apply standard statistical inference procedures, and to draw conclusions from analyses.

2 Required Text

Naked Statistics: Stripping the Dread from the Data by Charles Wheelan Additional readings will be made available on Blackboard, which can be accessed through MyUAlbany.

3 Required Software

Stata17/IC - The student version of Stata is sufficient for the course. The software costs \$45 and purchase information can be found here: Stata Link.

Stata is a statistical software that will provide an opportunity for you to learn the basic logic and intuition using code to conduct data analysis. The coding language for Stata is very simple, clear, and straight forward, so it serves as a good entry point to getting comfortable using programming languages for analyzing data and learning more about the world around us. Once you adjust to the basics of analysis with an easy and intuitive language like Stata, transitioning to other software languages (e.g., R, Python) will be much less onerous.

3.1 Recommended texts

The Workflow of Data Analysis Using Stata by J. Scott Long Data Analysis Using Stata, Third Edition by Ulrich Kohler & Frauke Kreuter

4 Assignments

4.1 Overview

The following assignments will form the basis of your grade in this course:

- Midterm and Final exams (60% of final grade)
- Weekly homework (30% of final grade)
- Participation and Attendance (10% of final grade)

NOTE: All assignments will be turned in via Blackboard.

4.2 Exams

To assess your understanding of the course material and your ability to apply concepts, students will take two exams during the semester. The exams will be taken in class and are closed book. Together, the exams constitute 60% of the student's grade for the course. You are allowed a calculator and a letter sized sheet of notes. Smart phones, smart watches, and tablets are not allowed during the exam.

Late assignments. An assignment is considered late if it is submitted to Blackboard after class begins on the day the assignment is due. Late assignments will be deducted 10% of the available points if turned in late on the due date, 20% of the available points if turned in the day after the due date, and not accepted if later.

4.3 Weekly Homework

Over the course of our semester together, 10 homework assignments will be posted to Black-board every Thursday evening. Each homework assignment will be worth 10 points and each assignment will be graded on **both** the accuracy of your answers **and** the process by which you reached your answers. Note that the latter part means, implicitly, that you will need to show all of your work, step-by-step.

Homework assignments are to be submitted via **Blackboard** and are due **before** class the week they are due.

4.4 Participation

A big part of learning comes from class discussion and participation in class activities. You can do neither if you do not attend class. Attendance will be tracked and points will be subtracted for absences. In addition to attendance, sustained and regular contributions to class discussion will be factored in to the class participation grade for the semester. Note that while participation only affects 10% of your final grade, it can mean a difference of a full letter in the grade you receive. In education, as with most things in life, what you get out of an act is a function of what you put into that act. Consider this my small way of nudging you towards getting all you can out of this class.

5 Class policies

- Public policy is a professional field; therefore, I emphasize professional skills in the classroom and assignments. Professional skills are punctuality, adhering to deadlines, and preparedness.
- After the first week, readings for each week should be completed by the Tuesday of that week (that is, BEFORE CLASS!). While much of the class reading comes from the text, I will cover other material in my lectures. You will be responsible for knowing this material too!
- A large body of well-designed research has demonstrated the detrimental effects of laptops on learning in a lecture/discussion based environment. Please be courteous and do not use your computers for anything other than class related work (taking notes and so on). Cellular phones are not to be used during class time!
- Letters of recommendation. If you are a hard working student and serious about a career in public service, I will be a dedicated advocate for you on the job market and will happily write letters of recommendation on your behalf. There is, however, one condition and one recommendation. The condition: I will not write a letter of recommendation for your while you are in my class. This is because to write a good faith, sincere, and thoughtful recommendation, I will need to be able to consider your work as a whole, and while the class is on-going, my assessment of you will be incomplete.

After the semester is over, I am happy to help in any way I can, including writing letters. The recommendation: Make an appointment to visit my office hours at least once over the course of the semester to talk informally about your goals, career interests, and other professional ambitions so I can get a better sense of who you are as individuals. The better I know you, the more effective I can be at writing letters on your behalf and thinking of you when opportunities arise.

- Attend class! Again, class participation is 10% of your grade, and you can't participate if you're not in class. If you DO need to miss class (emergencies, sickness, etc.), please contact me as soon as possible and let me know. It will be your responsibility to notify me and to get any notes/materials from other students.
- Cell phones: we all have them, and they can be quite distracting. I ask that you please be courteous and silence your cell phone and leave it out of sight (in a pocket/purse/bag) during class.
- Feel free to eat and drink in class. I only ask that you do so quietly and in a manner that does not disrupt class.
- All assignments and non-textbook readings will be posted to the class Blackboard. I will email any announcements or updates to the class and also post them in the Blackboard. Report any trouble accessing anything on the Blackboard as soon as you encounter the problem.
- I have a strict open door policy. If there is anything about the course, the assignments, the grading, the material, class, or anything related to public administration/policy or statistics broadly that you would like to discuss, do not hesitate to visit me during office hours or email me. I can respond via email, schedule a phone call, or schedule a separate meeting. I am here to help, so please do not hesitate to reach out to me. (But please be respectful of my time!)
- **Have fun!** Public administration/policy is a broad topic that explores big, important questions that affect everyone. Discussing these topics should be as fun and interesting as it is challenging.
- Table 1 below lays out the grading scale that will be used in assigning final course grades. Note: the percent refers to the percent of available weighted points earned. Each assignment is weighted by the proportion of the final grade made up by the assignment itself, as described in Section 3.1.
- Students with special physical and/or learning needs will be accommodated. Please notify the Disabilities Office and me as soon as possible so that reasonable accommodations can be made.
- NOTE: THROUGHOUT THE SEMESTER, I MAY ADD OR SUBTRACT READINGS AS NEEDED TO ADJUST THE COURSE ACCORDING TO YOUR PROGRESS, ENGAGEMENT, AND INTERESTS.

Table 1: Grade scale used for calculating class grades

| Percent | Grade | Points |
|---------|---------------|--------|
| 93-100 | A | 4.0 |
| 90-92 | A- | 3.7 |
| 87-89 | $\mathrm{B}+$ | 3.3 |
| 83-86 | В | 3.0 |
| 80-82 | В- | 2.7 |
| 77-79 | $\mathrm{C}+$ | 2.3 |
| 73 - 76 | \mathbf{C} | 2.0 |
| 70 - 72 | C- | 1.7 |
| 67-69 | D+ | 1.3 |
| 63-66 | D | 1.0 |
| 60-62 | D- | 0.7 |
| <60 | F | 0.0 |

5.1 Academic integrity

Academic honesty is something your professor takes very seriously. Cheating in any form will not be tolerated. Students are required to be familiar with the university's academic honesty policies; ignorance is not an excuse for dishonest behavior. In all cases of cheating, a Violation of Academic Integrity Report will be submitted to the Dean of Graduate Studies to be placed in your university file, with copies provided to you, the department head, and the Dean of Rockefeller College. Additional penalties may include some combination of the following: revision and re-submission of the assignment, reduction of the grade or failure of the assignment, reduction of the course grade or failure of the course, filing of a case with the Office of Conflict Resolution and Civic Responsibility, suspension, or expulsion. For a more detailed description of the university's academic honesty policies, go to: http://www.albany.edu/graduatebulletin/requirements_degree.htm#standards_integrity.

5.2 Students with Disabilities

The Americans with Disabilities Act is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disability.

The Disability Resource Center (DRC) offers assistance with accommodations and support for physical, medical, or psychological disabilities (518-442-5490; 120 BA). Information about DRC's services can be found at http://www.albany.edu/disability/index.shtml.

If you have a disability for which you may request accommodation in this course and have not contacted DRC, please do so as soon as possible. Also, please feel free to contact the professor privately.

5.3 Counseling Center

The Counseling Center (518-442-5800; 400 Patroon Creek Blvd, Suite 104) offers counseling and consultations regarding personal concerns, self-help information, and connections to off-campus resources. More information can be found at http://www.albany.edu/counseling_center/index.shtml

5.4 Library Assistance

SUNY-Albany offers a great collection available in several different media. Access to research help and library tutorials can be found online at http://library.albany.edu/

For information about SUNY-Albany's Dewey Graduate Library, which is located on the Downtown Campus, visit http://library.albany.edu/dewey?source=drop

5.5 Writing Center

The university offers a number of services for students who need assistance with writing and research projects. Support is available in the Writing Center (518-442-4061; 140 HU) and at the University Library. Information about the Writing Center can be found at http://www.albany.edu/writing/index.html

5.6 Title IX and Sexual Violence Prevention

Title IX of the Education Amendments of 1972 is a federal civil rights law that prohibits discrimination on the basis of sex in federally funded education programs and activities. The SUNY-wide Sexual Violence Prevention and Response Policies prohibit offenses defined as sexual harassment, sexual assault, intimate partner violence (dating or domestic violence), sexual exploitation, and stalking. The SUNY-wide Sexual Violence Prevention and Response Policies apply to the entire University at Albany community, including students, faculty, and staff of all gender identities. The University at Albany provides a variety of resources for support and advocacy to assist individuals who have experienced sexual offenses.

Confidential support and guidance can be found through the Counseling Center (518-442-5800, Counseling Center), the University Health Center (518-442-5454, Health Center), and the Interfaith Center (518-489-8573, Interfaith Center). Individuals at these locations will not report crimes to law enforcement or university officials without permission, except for in extreme circumstances, such as a health and/or safety emergency. Additionally, the Advocates at the University at Albany's Advocacy Center for Sexual Violence are available to assist students without sharing information that could identify them (518-442-CARE, Advocacy Center).

Sexual offenses can be reported non-confidentially to the Title IX Coordinator within The Office for Equity and Compliance (518-442-3800, Equity and Compliance, Building 25,

Room 117) and/or the University Police Department (518-442-3131, UPD).

Please note, faculty members are considered "responsible employees" at the University at Albany, meaning that they are required to report all known relevant details about a complaint of sexual violence to the University's Title IX Coordinator, including names of anyone involved or present, date, time, and location.

In case of an emergency, please call 911.

5.7 Incomplete grade policy

A tentative grade given only when the student has nearly completed the course but due to circumstances beyond the student's control the work is not completed on schedule. The date for the completion of the work is specified by the instructor. The date stipulated will not be later than one month before the end of the session following that in which the Incomplete is received. The grade I is automatically changed to E or U unless work is completed as agreed between the student and the instructor.

6 Class schedule

6.1 Overview of weeks

| Monday | Tuesday | Wednesday | Thursday | Sunday |
|-------------|-----------------|-----------|---------------|--------|
| Jan 24th | 25th 1 | 26th | 27th 2 | 30th |
| | Intro to Course | | Setting Up | |
| | | | Computers | |
| 31st | Feb 1st 3 | 2nd | 3rd 4 | 6th |
| | Central | | | |
| | tendency, | | | |
| | dispersion, | | | |
| | frequency | | | |
| | distribution; | | | |
| | Chapter 2 | | | |
| $7	ext{th}$ | 8th 5 | 9th | 10th 6 | 13th |
| | Homework 1 | | | |
| | Due | | | |
| | Scatterplots, | | | |
| | correlations; | | | |
| | Chapter 4 | | | |

| Monday | TUESDAY | WEDNESDAY | THURSDAY | SUNDAY |
|--------|-------------------------|-----------|----------------|---------|
| 14th | 15th 7 | 16th | 17th 8 | 20th |
| | Homework 2 | | | |
| | Due | | | |
| | Two-way | | | |
| | tables, causal | | | |
| | relationship; | | | |
| | Chapter 5 and | | | |
| | Chapter 5 $\frac{1}{2}$ | | | |
| 21st | 22nd 9 | 23rd | 24th 10 | 27th |
| | Homework 3 | | | |
| | Due | | | |
| | Research design | | | |
| | and policy | | | |
| | study; Chapter | | | |
| 28th | 7 Mar 1st 11 | 2nd | 3rd 12 | 6th |
| 20011 | Homework 4 | Zhd | 51d 12 | 0011 |
| | Due | | | |
| | Normal | | | |
| | distribution, | | | |
| | sampling | | | |
| | design; Chapter | | | |
| - 1 | 10 | 0.1 | 10-1 | 10.1 |
| 7th | 8th 13 | 9th | 10th 14 | 13th |
| | Homework 5 | | Midterm | |
| | Due Midterm | | Exam | |
| | Review | | | |
| 14th | 15th 15 | 16th | 17th 16 | 20th |
| | Spring Break, | | Spring Break, | |
| | no class | | no class | |
| 21st | 22nd 17 | 23rd | 24th 18 | 27th |
| | Homework 6 | | | |
| | Due | | | |
| | Inference and | | | |
| | confidence | | | |
| | interval; | | | |
| | Chapter 8 & | | | |
| _ | Chapter 9 | _ | | |
| 28th | 29th 19 | 30th | 31st 20 | Apr 3rd |
| | Test for | | | |
| | significance | | | |

| Monday | TUESDAY | | Wednesday | THURSDA | AY | SUNDAY |
|--------|---------------|-----------|-----------|-------------------|------------|---------|
| 4th | 5th | 21 | 6th | 7th | 22 | 10th |
| | | | | Comparing | two | |
| | | | | means | | |
| 11th | 12th | 23 | 13th | 14th | 24 | 17th |
| | Simple linear | | | Homeworl | k 7 | |
| | regression; | | | Due | | |
| | Chapter 11 | | | Homeworl | k 8 | |
| | | | | Due - Ext | ra | |
| | | | | \mathbf{Credit} | | |
| 18th | 19th | 25 | 20th | 21st | 26 | 24th |
| | Homework | 9 | | | | |
| | Due | | | | | |
| | Multiple | | | | | |
| | regressions | | | | | |
| 25th | 26th | 27 | 27th | 28th | 2 8 | May 1st |
| | Homework | 10 | | | | |
| | Due | | | | | |
| | Predictions | | | | | |
| | from | | | | | |
| | regressions | | | | | |
| 2nd | 3rd | 29 | 4th | 5th | 30 | 8th |
| | Final Review | | | | | |
| 9th | 10th | 31 | 11th | 12th | 32 | 15th |
| | | | | | | |
| 16th | 17th | 33 | 18th | 19th | 34 | 22nd |
| | | | | | | |
| | | | | | | |