Course Syllabus

Course Information

Course Title: Data Applications in Public Administration
Course Number: PADP 7120
Course Section: 44502
Course Meeting Times: Thursday 3:55 p.m. - 6:45 p.m. in Caldwell Hall 206

Instructor Information

Alex Combs
Email: Alex.Combs@uga.edu

Office Hours: Tuesday 11:30 - 1:00 p.m. and Thursday 1:00 - 2:30 p.m.
Office Location: Baldwin Hall 278

Course Description

Applications of data analysis techniques to problems in public management and policy. Special attention is devoted to instilling familiarity with software packages to solve public sector problems. Topics involve the entire data analysis workflow, including the collection and cleaning of data, description of data numerically and visually, and drawing conclusions from statistical inference using cross-tabulation, difference of means testing, and regression analysis.

Course Objectives

This course contributes to our MPA program's Competency 3: **To analyze, synthesize, think critically, solve problems, and make evidence-informed decisions in a complex and dynamic environment**.

Specifically, upon successful completion of this course, you should be able to:

1. Use various methods and analytical tools to analyze policy design and interpret data to provide effective reasoning for decision-making, budget development, and policy creation.
2. Learn approaches to inform the public and other stakeholders about prospective policy alternatives or retrospective program evaluation through the presentation of data and research findings.
3. Produce research papers involving the synthesis of information, evaluation, and analysis of critical questions or problems currently facing the field of public administration and policy.

Course Outline

1. Data types and structures
2. Data measurement
3. Data description
4. Data visualization
5. Regression analysis
6. Causal inference
7. Hypothesis testing
8. Forecasting

Course Materials

All required readings and materials will be provided via eLC except for software. This is a computer-intensive class that meets in a computer lab. Therefore, you will have access to the required software in class. Since assignments require the use of the same software, you will need to use a campus or personal computer outside of class regularly. You may also prefer to use a personal computer during class. If using a personal computer, you will need to be able to access R and RStudio. This link provides the steps to do so: RStudio. From this webpage, you can choose to download R and RStudio to your computer or sign up for a cloud-based version that does not require installation.

Course Assignments

Homeworks: Most weekly reading assignments will be accompanied by a homework assignment. Each homework assignment will provide instructions for applying concepts and skills in RStudio relevant to that week's topic. Homework assignments will be graded pass/fail based on whether you submit a good-faith effort before the deadline.

Labs: Most class meetings will include a lab component that applies the covered statistical concepts in RStudio. I will provide instructions and prompts to help you practice the skill. Labs will be graded on a pass/fail basis. If you attend class and participate in the lab, you receive credit. You may miss one lab without an excuse or consequence to your final grade. My policy on late work (see below) applies to additional missed labs. If excused, late-submitted labs will be graded based on accuracy and completeness.

Quizzes: Five quizzes will be scheduled throughout the semester. Quizzes are intended to provide a low-stakes means of preparing students for the exams and reinforcing topics relevant to problem sets. The quizzes will be relatively brief, emphasizing key topics from the required readings and recent class meetings. All quizzes will be administered online outside of class. The four quizzes with the highest scores will be included in the calculation of the final grade.

Problem Sets: Students are expected to complete three problem sets during the semester. Problem sets will include a combination of conceptual and applied questions that require the use of RStudio. Up to three students may work together on problem sets.

Exams: Students are expected to complete a midterm and final exam. Both exams will be administered via eLC. The exams will focus on statistical concepts and not involve the use of RStudio.

Grading Policy

Assignment	Percent of Final Grade
Homeworks (7)	10%
Labs (9)	10%
Quizzes (5)	10%
Problem Sets (3)	30%
Midterm Exam	20%
Final Exam	20%

Letter Grade	Percentage
A	93.00-100
A-	90.00-92.99
B+	87.00-89.99
B	84.00-86.99
B-	80.00-83.99
C+	77.00-79.99
C	73.00-76.99
C-	70.00-72.99
D	65.00-69.99
F	64.99 and below
I	Incomplete

Course Policies and Procedures

Academic Honesty

UGA Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found at www.uga.edu/ovpi.

Generative Artificial Intelligence (GAI): Use of GAI, such as ChatGPT, is permitted and will be encouraged at times unless I explicitly prohibit it as part of assignment instructions. However, remember that AI tools are best used to augment, not replace, our skills. Students should credit the use of GAI when doing so is tantamount to presenting another's work as your own.

Accommodations for Disabilities

If you plan to request accommodations for a disability, please register with the Disability Resource Center. They can be reached by visiting Clark Howell Hall, calling 706-542-8719 (voice) or 706-542-8778 (TTY), or by visiting http://drc.uga.edu.) See https://drc.uga.edu/sample-access-statements/ for additional examples.

Attendance Policy

Attendance is strongly encouraged. Regularly missing class will likely negatively affect your grade. This is for two reasons: 1) Completion of some assignments requires attending class, and 2) Class meetings are designed to prepare you for assignments.

Make-Up Procedures for Exams and Assignments

Assignment deadlines will be enforced. Late work submitted without an acceptable excuse before the deadline will receive no credit unless circumstances made advance notice impossible. If circumstances arise that prevent you from completing your work on time, let me know as soon as possible, and I will work with you to find a solution that is as fair to you, me, and other students as possible.

Well-being Resources

UGA Well-being Resources promote student success by cultivating a culture that supports a more active, healthy, and engaged student community. Anyone needing assistance is encouraged to contact Student Care & Outreach (SCO) in the Division of Student Affairs at 706-542-8479 or visit sco.uga.edu. Student Care & Outreach helps students navigate difficult circumstances by connecting them with the most appropriate resources or services. They also administer the Embark@UGA program which supports students experiencing, or who have experienced, homelessness, foster care, or housing insecurity. UGA provides both clinical and non-clinical options to support student well-being and mental health, any time, any place. Whether on campus, or studying from home or abroad, UGA Well-being Resources are here to help.

- Well-being Resources: well-being.uga.edu
- Student Care and Outreach: sco.uga.edu
- University Health Center: healthcenter.uga.edu
- Counseling and Psychiatric Services: caps.uga.edu or CAPS 24/7 crisis support at 706-542-2273
- Health Promotion/ Fontaine Center: healthpromotion.uga.edu
- Disability Resource Center and Testing Services: drc.uga.edu

Additional information, including free digital well-being resources, can be accessed through the UGA app or by visiting https://well-being.uga.edu.

Disclaimer

The course syllabus is a general plan; deviations may be necessary and will be announced to the class.