PADP7120: Data Applications in Public Administration

Fall 2020, Section 46691

Classroom: Candler Hall 214 (capacity: 9)

Wednesdays 4:10-7:00

Format: F2F-Remote Hybrid

INSTRUCTOR

Dr. Alex Combs

Email: Alex.Combs@uga.edu (mailto:Alex.Combs@uga.edu)

Office Location: Baldwin Hall 278

"We should have aggressive and wild ambitions that are only anchored by plans, not by doubts."

- Stacey Abrams

"Plans are worthless, but planning is everything."

Office Hours: M/F 3-5 or by appointment (in-person or Zoom)

- Dwight D. Eisenhower

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 toward the following MPA program competencies: 1) To participate in the Public Policy Process, 2) To analyze, synthesize, think critically, solve problems, and make decisions, and 3) Communicate with a diverse workforce and citizenry. By the conclusion of this course, students are expected to be able to:

1. Analyze policy alternatives using quantitative tools to evaluate decisions and explain potential ramifications for diverse constituencies
2. Use various methods and analytical tools to analyze and interpret data to provide effective reasoning for decision making and policy creation
3. Concisely inform the public and other stakeholders of decision and initiatives through the presentation of data and research findings
4. Produce policy papers involving the synthesis of information, evaluation, and analysis of critical questions or problems currently facing the field of public administration and policy

5. Execute specific strategies to enhance equity within and representativeness of the public workforce to ensure all people with a government's jurisdiction are well served

TOPICAL OUTLINE

Data types and structures
Measurement validity & reliability
Data description
Data visualization
Regression analysis
Causation & bias
Sampling
Surveys & evaluations
Forecasting
Panel analysis

REQUIRED COURSE MATERIALS

There is a wealth of free material that teaches statistics and statistical software. All required materials for this course are free. All readings and other materials will be provided via eLC. Students who plan to use their own computers will need to download the following software:

- R
- RStudio

Instructions for downloading R and RStudio are available on eLC.

COURSE AVAILABILITY

This is a **F2F-Remote Hybrid** course. For each class meeting, as many students as our classroom can accommodate will be *invited* to attend face-to-face (F2F) on a rotating basis. F2F attendance is optional for all students throughout the semester. Any students not in F2F attendance can join class meetings through a live feed on Zoom. All course materials and graded components will be available online and can be completed online. Class meetings will be designed to reinforce course concepts and skills covered in online materials through discussion, activities, and supervised software practice.

COURSE EXPECTATIONS & POLICIES

Disclaimer

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

Attendance, Participation, & Late Submissions

If our classroom cannot accommodate all students enrolled in the course, a schedule of F2F invitations will be provided by your instructor. This schedule may require frequent updates during the beginning of the semester as course enrollment and logistics change. It is optional to attend F2F. All class sessions will be streamed for synchronous online participation. Following Thanksgiving Break, the course will shift to asynchronous online instruction. Students are encouraged to attend and participate in all class meetings either F2F or online but doing so is not a requirement. Absences do not need to be excused. All graded components can be completed online without attending class meetings, though class meetings will facilitate successful completion of graded assignments. Assignment deadlines will be enforced irrespective of attendance. Late work without any known, acceptable excuse will receive no credit. If circumstances arise that prevent you from submitting work on time, let me know as soon as possible, and I will work with you to arrive at a solution that is as fair to you, me, and other students as possible.

R Chapters

Most weekly reading assignments will involve an R Chapter. Each R Chapter provides instructions on how to apply concepts and skills covered that week in R, then asks students to answer a few practice questions. R Chapters will be graded pass/fail based on whether you submit your answers prior to the class period to which the R Chapter was assigned. Sample answers will become available via eLC immediately after you submit your answers.

R Labs

Most class meetings will include a lab component that covers an applied skill in R. Your instructor will provide instructions, prompts for you to practice the skill, and assistance when needing to troubleshoot. R Labs will be graded pass/fail based on whether you attend

class and participate in the R Lab, then submit your work on eLC by the end of the class meeting. Students who do not attend class meetings are welcome to complete and submit R Labs for full credit if done accurately on time.

Problem Sets

Students are expected to complete three problem sets throughout the semester. Problem sets will include a combination of conceptual and applied questions that require students to use R. Up to three students may work together on a problem set. Problem sets will be graded numerically.

Exams

Students are expected to complete a midterm and final exam during the semester. The exams will focus entirely on concepts covered in the course, not use of R. The exams will evaluate students on their understanding of theory and correct practices regarding data description and inference, as well as their ability to interpret and communicate statistical information and make decisions.

DataCamp Chapters (Optional/Extra Credit)

Students of this course receive a free account to DataCamp (https://www.datacamp.com). DataCamp contains numerous interactive exercises that can help you build conceptual understanding of statistics and skills in R. The course schedule provides a list of DataCamp chapters that are relevant to the topics covered each week. The DataCamp chapters are optional. However, students will receive extra credit for completing DataCamp chapters.

Academic Honesty

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: http://honesty.uga.edu/ (http://honesty.uga.edu/). The Academic Honesty Policy can be found at: https://honesty.uga.edu/Academic-Honesty-Policy/ (https://honesty.uga.edu/Academic-Honesty-Policy/)

Accommodations Due to Disability

Students who seek special accommodations due to a disability should contact me during the first week of the semester or as soon as the need for the accommodation is discovered. I will work with the Disability Resource Center (706-542-8719, http://drc.uga.edu/ (http://drc.uga.edu/)) to provide appropriate accommodations.

Mental Health and Wellness Resources

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 https://sco.uga.edu (https://sco.uga.edu/). 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 for a student seeking mental health services (https://www.uhs.uga.edu/bewelluga/bewelluga (https://www.uhs.uga.edu/bewelluga/bewelluga)) or crisis support (https://www.uhs.uga.edu/info/emergencies (https://www.uhs.uga.edu/info/emergencies)). If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA

(https://www.uhs.uga.edu/bewelluga/bewelluga
(https://www.uhs.uga.edu/bewelluga/bewelluga)) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center. Additional resources can be accessed through the UGA App.

FERPA Notice

The Federal Family Educational Rights and Privacy Act (FERPA) grants students certain information privacy rights. See the registrar's explanation at https://osas.franklin.uga.edu/ferpa-and-privacy (https://osas.franklin.uga.edu/ferpa-and-privacy) FERPA allows disclosure of directory information (name, address, telephone, email, date of birth, place of birth, major, activities, degrees, awards, prior schools), unless a https://reg.uga.edu/_resources/documents/imported/FERPARequestForRestriction.pdf (https://reg.uga.edu/_resources/documents/imported/FERPARequestForRestriction.pdf) is submitted to the Registrar's Office.

COURSE ETIQUETTE AND NETIQUETTE

- Be respectful
- Do not eat during class
- Follow all UGA guidance regarding COVID-19

ASSIGNMENTS

Your final grade will be based on the following (DataCamp extra credit excluded):

Assignment	Percent Weight
R Chapters (10)	10
R Labs (10)	10
Problem Sets (3)	40
Midterm Exam	20
Final Exam	20

Grading Scale

Letter Grade	Percentage
A	93-100
A-	90-92
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	73-76

C-	70-72
D	65-69
F	64 and below
I	Incomplete