PADM 596–Research Methods II: Data Analysis

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1 Course Information

Course Title:	Research Methods II: Data Analysis
Number and Section:	PADM 596 012
Term:	Fall 2022
Course Format:	Online and synchronous
Class Hours:	Thursdays, 1800-2045 MST

1.1 Course Description

This course builds on PADM 595 and focuses on data analysis prevalent in public administration, including descriptive and inferential statistics, confidence intervals, hypothesis testing, correlation, cross-tabulation, mean comparison with significance testing, regression, ANOVA.

Prerequisite: PADM 595 and permission of the department.

1.2 Master of Public Administration (MPA) Competencies

1. To lead and manage in the public interest.
2. To participate in, and contribute to, the policy process.
3. To analyze, synthesize, think critically, solve problems and make evidence-informed decisions in a complex and dynamic environment.
4. To articulate, apply, and advance a public service perspective.
5. To communicate and interact productively.

2 Course Material

Healey, J. F. (2015). *The essentials of statistics: A tool for social research.* Cengage Learning.
StataCorp. (2021). *Stata statistical software: Release 17.* StataCorp LLC.

2.1 Recommended Material

American Psychological Association (Ed.). (2019). *Publication manual of the American Psychological Association* (7th ed.).

2.2 Additional Material

Additional material will be posted to Canvas from time to time.

3 Introduction

This course will be conducted fully online via Canvas.

3.1 Class

The class will be conducted synchronously online via Zoom. The class will be recorded and posted for any student who would like to review the material. Homework will be due at the time of class. Students will have the week to complete all material at their own pace (abiding by the due dates for assignments).

3.2 Student Hours

I will hold a weekly session on Zoom every Tuesday evening from 1800 to 1900 Albuquerque-time. Everyone should feel welcome to come and discuss the class and material. If you are interested in a private discussion or cannot make it at that time, please email me and let me know and we will find a good time for both of us to meet.

4 Course Requirements

4.1 Class Participation [20 percent]

You are required to write several Canvas posts regarding the course material or the answer to a posted discussion question. This assignment should contain your critical reaction/thoughts to the readings, or response to a question related to the week's material. Your response should be between 100 to 150 words in length. No late responses will be accepted, you must submit them to Canvas by the end of the week when it is due on Sunday, 11:59pm. Refer to the Course Schedule for specific deadlines. Besides your own posts, you should respond to two of your classmates posts. So, look over what other people have said and provide meaningful feedback and comments to at least 2 classmates.

You are welcome to post links to news articles or any other material to exemplify your points. You will be graded based on the quality and thoughtfulness of your responses. The dates when posts are due can be found in the course schedule.

4.1.1 Q&A Discussion Board. There is a questions-and-answers forum on Canvas. Use this forum to post your questions and to reply to one another. You can start a new thread or reply to one that is already open. I will look in on the Discussion board several times each weekday and will reply to your questions.

4.1.2 Examples of Stats in Everyday Life. During in person class, students often bring up examples they see in the daily news or real-world that relates to the course material. I created a forum on Canvas, named "Use and Misuse Examples." If you come across great examples of statistics or data being misused or misinterpreted, please post them here. This will count towards your participation grade.

4.2 Quizzes [25 percent]

In order to ensure adequate reading of the textbook and comprehension of materials, throughout the semester you will have several quizzes. These will be 20 to 45 minutes multiple-choice online quizzes on the assigned readings and material we went over in the video during that week. All quizzes will be posted on Canvas on Monday and you will have until Sunday at 11:59pm to complete them. The dates when quizzes are due can be found in the course schedule. Note that the lowest quiz grade will be dropped.

4.3 Assignments [25 percent]

There will be assignments drawn from the textbook for most weeks of the semester. The dates when assignment are due can be found in the course schedule. Note that the lowest assignment grade will be dropped.

4.4 Final Project [40 percent]

The final project will be detailed during the second week of class.

4.4.1 Late assignment policy. Turning assignments on time is expected from all students. I understand that sometimes life happens, so if you cannot turn in an assignment by the due date indicated on the course schedule, let me know immediately. You must email me requesting an extension before the deadline, otherwise, it will be considered late. Students will be penalized one full grade per day after the deadline and no assignments will be accepted after three days. Late assignments will only be accepted without penalty if you have a documented excuse (e.g. illness, death in family, illness of child, unforeseeable work emergency, or is undergoing extraordinary circumstances). If that's the case, inform me as soon as possible, before the assignment is due by email.

4.4.2 Assignment Collaboration Policy. You are free to collaborate on the assignments with your classmates. In fact, you are encouraged to work in groups: working in groups is an excellent way to learn. However, you must individually write up your own assignment in your own words. Frequently students (and professors!) think that they understand something, but when they sit down to try it by themselves, they realize that they do not. Writing out your assignment in your own words is how you will know that you really understand it. Note that if I receive assignments that are verbatim copies or simple paraphrases of one another (wholly or in substantial part), I will mark both assignments down substantially (possibly to zero credit). Do not give other students electronic copies of your assignments.

5 Grading

The course is graded based on the following components:

And letter grades are based on the following schedule:

Participation:	20%
Quizzes:	25%
Assignments:	25%
Final project:	30%

Min	Max	Grade	Min	Max	Grade	Min	Max	Grade
93.0	100	A	90.0	92.9	A-	87.0	89.9	B+
83.0	86.9	B	80.0	82.9	B-	77.0	79.9	C+
73.0	76.9	C	70.0	72.9	C-	0.0	69.9	F

Beyond these grading tables, discussions, quizzes, and assignments will be graded based on the associated rubrics posted within Canvas.

6 Expectations

By registering for a web-based course, you have made a commitment to participate in course discussions and online activities. Plan to participate regularly. Participation for this course is defined as proactive discussion. This requires you to actively reflect on weekly readings and to develop original ideas in your responses. You are expected to demonstrate critical thinking and your understanding of the content in the assigned readings as they relate to the issues identified in the discussions. You are encouraged to respond to other students as well as to your instructor. You are expected to adhere to the general rules of online etiquette.

You should read the book chapter assigned for that week prior to watching the video. After going over the material, you should check to see if there is a quiz, discussion post, or assignment due that week. For the weeks when assignments are due, you won't have a quiz or discussion forum so you can focus on the assignment. Note that all posts/quizzes and assignments will always be due at the end of the week on Sundays at 11:59 pm. When referring to the class schedule the quiz/forum/assignment are always due at the end of the week due.

It is your responsibility to check Canvas and your email daily. This is how I will communicate with you, and all recorded lectures, quizzes, and course material will be on Canvas. You are responsible for announcements made through Canvas. Please make it a habit to check Canvas on Monday evening for each week's material.

Log into our online classroom regularly to read news, participate in discussions, and post questions. After posting work in a discussion, check back into the discussion to read comments and make any necessary revisions.

Questions and thoughts of general interest to the class should be posted in the "Questions and Answers" forum. For questions pertaining to your own work in the course, please send me an email and we can figure out what is going on.

If you need help or get lost, let me know. I have a lot of resources I can send you that will get you through this. But if you are lost, you should tell me where you last knew where you were. If you send me an email that just says "I am lost, help, I don't know what to do," I will have no idea where you are or how to find you. It is just like being lost in the real world. So when you do get lost, tell me exactly where you are or, if you cannot, tell me what is happening and how you got there. It will make it a lot easier on both of us. And together, we can find the way out.

7 Additional Course Policies

University and course policies applicable to this course will be provided in a separate document.

Appendix: Tentative Course Schedule

Module	Starting Date	Ending Date	Theme
1	8/22	8/28	Introduction and Basic Statistics
2	8/29	9/4	Central Tendency: The mean, median, and mode
3	9/5	9/11	Dispersion: How wide is the data?
4	9/12	9/18	The normal curve: It's everywhere
5	9/19	9/28	Inferential statistics
6	9/29	10/2	One-sample hypothesis testing
7	10/3	10/9	Two-sample hypothesis testing
	10/10	10/16	Fall Break
8	10/17	10/23	Hypothesis testing with ANOVA
9	10/24	10/30	Chi-Square for Hypothesis Testing
10	10/31	11/6	Nominal variable association
11	11/7	11/13	Bivariate correleation
12	11/14	11/27	Multiple Regression
13	11/28	12/4	Multiple Regression
14	12/5	12/11	Research projects
15	12/12	12/17	Research projects