WEST TEXAS A&M UNIVERSITY
DEPARTMENT OF POLITICAL SCIENCE AND CRIMINAL JUSTICE

EMA4392 Topics in Public Administration and Emergency Management
Applied Statistics for First Responders
Web-Based
Spring 2022

Instructor:	Dr. Ming Xie (*She | Her | Hers*)
Email:	mxie@wtamu.edu
	NOTE: Please be mindful when emailing me – do not email a WT student with the same last name and the same first name initial with me. It is not the student's responsibility to notify you that you've emailed the wrong person.
Office:	Old Main 205A
Office Phone:	806-651-2564
	NOTE: I will respond to messages within 48 hours, excluding weekends, holidays, and breaks.
Office Hours:	Tuesdays and Thursdays: 9:00am-3:00pm or by appointment
	For this class, I will hold Zoom meetings on every Thursday at 5pm to address any questions you might have and we can work on some problem solving together.

Required Text:
Salkind, N. J. (2017). *Statistics for people who (think they) hate statistics: Using Microsoft Excel 2016* (4th ed.). Thousand Oaks, CA: SAGE. [Paperback ISBN 978-1-4833-7408-6].

Course Description:
A basic understanding of statistical methods is foundational to understanding and utilizing social science research. This is an undergraduate course focusing on applied statistics and data management in the public sector and the social sciences. The purpose of this course is to introduce students to basic statistics of research and decision-making. This course emphasis is on the exploration of data processing and techniques as they relate to statistical analysis and on the understanding the proper application of statistics.

Course Objectives:
Upon completion of the course, you should be able to:
- Understand a basic statistics and data management in public sector.
- Perceive practical knowledge about fundamental concepts of statistics and their applications.
- Learn how to apply these skills for their area(s) of interest and study.
- Become a creative producer of statistical analysis using computer programs.

Program Learning Outcomes:
- Students will be able to demonstrate an understanding of how managerial and institutional principles are specially modified for the public-sector and nonprofit environments.
- Students will be able to demonstrate how they define and apply these principles to link emergency management literature.

Course Requirements:
A. HAVE FUN! In spite of what you may have heard (or experienced in the past), numbers are not EVIL. Exposure to numbers will not cause erosion of your passion to help your clients. But numbers are necessary. You'll see them on almost every research article you read for the rest of your life. They are in the newspaper every day (if you're one of those students old enough to remember what a newspaper is). They are even underneath those nifty pie charts and graphs on your favorite news Web site. Basically, there are two kinds of people in this world – those who understand numbers and those who will be misled by them. Which do you want to be?
B. READ! Every week you will be expected to read at least two things. First, you need to read the assigned chapters in the textbook. I really apologize for requiring this because statistics textbooks are usually quite difficult to understand on first reading (but I really hope we find Salkind to be different). Do it anyway. All the important stuff will also be covered in class (I hope), but you'll probably need to see it all multiple times before it really sinks in.
C. DON'T GIVE UP! If you don't give up on me, I won't give up on you. As far as I'm concerned, this is your class. Let's work together to see if we might be able to become a user of numbers instead of someone who is easily duped.

- **Homework (30%)**
  Students will be responsible for the completion of six homework assignments. The purpose of the assignment is to assist students in applying their understanding of the statistical procedures discussed in class as to well as to provide an opportunity for students to respond to the readings.

- **Quizzes (30%)**
  Six quizzes will be given throughout the semester and will require that you read and respond to material in the textbook as well as work out mathematical/statistical procedures discussed in class.

- **Exams (40%)**
  Two exams are given to determine understanding of the course material. Exams will cover all aspects of the course such as readings, lectures, videos, discussions, and any other course materials uploaded to WTClass. The course exams consist of multiple-choice and true-false questions. All students must take all course exams in the week it is posted.

  Exam attempts are timed and each student will only get one attempt to complete the exam. Typically, there is plenty of time built into the exam for the student to complete all

questions. No make-up exams are allowed unless prior arrangements are made. These exams will assess the student's knowledge of textbook and lecture material.

- **Extra Credit (up to 10%)**
  For the weekly Zoom meeting on Wednesday, you will get up to 10 extra points for each participation and up to 100 for the whole semester. The extra credits will be given based on your active participation, for example, turn on your camera and ask questions will receive more credits. Simply log in with your video and audio muted will not get credits.

Evaluation

Students should be aware that the instructor grades assignments according to the description in the WTAMU Catalog. An A is reserved for those students that have excelled or mastered the material or activity. A B is reserved for those students that have met all required areas and went beyond them with, perhaps, a few mistakes. A C is reserved for those students that met the required elements of the assignment with appropriate effort and went no further. A D is reserved for those students that almost met all of the required elements of the assignment, but with additional effort would have met them all. Finally, an F is reserved for those students that did not meet the required elements and, obviously did not put forth the required effort.

Every effort is made to make the grading system and rubrics as transparent and fair as possible. You may contest a grade up to one week after it is returned. If you believe that there has been an error on your assignment or exam, please wait 24 hours after receiving the grade. After that period, please submit a written description of the error you believe occurred along with the assignment or exam to the instructor for re-grading. Clerical errors and outright mistakes will be corrected; decisions about the amount of partial credit to give for an answer will not be revisited. Please note that your grade could increase, decrease, or remain the same upon reconsideration.

- **Grading System**

Task	Points
Homework (6 x 50 points each)	300
Quizzes (6 x 50 points each)	300
Exams (2 x 200 points)	400 points
Total	**1000 points**

- **Grading Scale**

Percentage	Letter Grade
90.0 - 100	A
80.0 - 89.9	B
70.0 - 79.9	C
60.0 - 69.9	D
0 - 59.9	F

- **Attendance**
  Attendance is important to succeed in this and any course in college. Your attendance is measured by your participation and completion of online activities.

- **Late Work**
  Late assignments will automatically be penalized 10% if they are submitted after the due date. Assignments will not be accepted if they are more than 24 hours late without making prior arrangements with the instructor. For example: if an assignment is due on Friday at 11:59 PM turned in on Saturday at 1:00 PM, a B paper would be dropped to a C. If the student does not submit the paper until Monday at 07:00 AM, no credit will be given for the assignment. Please note: The Late Policy does NOT apply to course exams. There are no make-up exams allowed in this course unless prior arrangements are made.

- **Retakes**
  If an assignment is returned to the student to be redone, it will be assessed a 15% penalty each time it must be redone. It is in the student's best interest to read/listen to assignment directions carefully so as to complete the assignment correctly the first time.

Course Policies and Responsibilities:
You will be responsible for assigned readings, quizzes, class lectures/discussions, participation in-class and other assignments.

Academic Integrity
All work must be completed individually unless otherwise stated. Commission of any of the following acts shall constitute scholastic dishonesty: acquiring or providing information for any assigned work or examination from any unauthorized source; informing any person or persons of the contents of any examination prior to the time the exam is given in any subsequent sections of the course or as a makeup; plagiarism; submission of a paper or project that is substantially the same for two courses unless expressly authorized by the instructor to do so. For more information, see the Code of Student Life.

Acceptable Student Behavior
Classroom behavior should not interfere with the instructor's ability to conduct the class or the ability of other students to learn from the instructional program (Code of Student Life). Unacceptable or disruptive behavior will not be tolerated. Students engaging in unacceptable behavior may be instructed to leave the classroom. Inappropriate behavior may result in disciplinary action or referral to the University's Behavioral Intervention Team. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc.

ADA Statement
West Texas A&M University seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to register

with [Student Disability Services](#) (SDS) and to contact faculty members in a timely fashion to arrange for suitable accommodations. Contact Information: Student Success Center, CC 106; phone (806) 651-2335.

Title IX Statement
West Texas A&M University is committed to providing a learning, working and living environment that promotes personal integrity, civility, and mutual respect in an environment free of sexual misconduct and discrimination. Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. Harassment is not acceptable. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here:

- WTAMU Title IX Coordinator Richard Webb – Old Sub, **or** call 806.651.3199
- WTAMU Counseling Services – Classroom Center 116, **or** call 806.651.2340
- WTAMU Police Department – 806.651.2300, **or** dial 911
- 24-hour Crisis Hotline – 800.273.8255, **or** 806.359.6699, **or** 800.692.4039 https://www.notalone.gov/

For more information, see the Code of Student Life.

Evacuation Statement
If you receive notice to evacuate the building, please evacuate promptly but in an orderly manner. Evacuation routes are posted in various locations indicating all exits, outside assemble area, location of fire extinguishers, fire alarm pull stations and emergency telephone numbers (651-5000 or 911). In the event an evacuation is necessary: evacuate immediately do not use elevators; take all personal belongings with you; report to outside assembly area and wait for further information; students needing assistance in the evacuation process should bring this to the attention of the instructor at the beginning of the semester.

The schedule is tentative and subject to change.

Week	Topics	Readings	Assignments
Week 1 01/10-01/16	Quality or Quantity: You be the Judge	Syllabus Chapter 1	Self-introduction by 01/16 11:59pm
Week 2 01/17-01/23	Descriptive Statistics: The Basics	Chapters 2-3	Quiz #1 by 01/23 11:59pm
Week 3 01/24-01/30	More Basics	Chapters 4 and 22	Homework #1 by 01/30 11:59pm
Week 4 01/31-02/06	Now we start getting serious-Correlations!	Chapter 5	Quiz #2 by 02/06 11:59pm
Week 5 02/07-02/13	Understanding Reliability and Validity	Chapter 6	Homework #2 by 02/13 11:59pm
Week 6 02/14-02/20	Hypotheses and Probability	Chapters 7-8	Quiz #3 by 02/20 11:59pm
Week 7 02/21-02/27	Inferential Statistics	Chapters 9-10	Homework #3 by 02/27 11:59pm
Week 8 02/28-03/06	Midterm		Midterm exam by 03/06 11:59pm
Week 9 03/07-03/13	*t* test	Chapters 11-12	Quiz #4 by 03/13 11:59pm
Week 10 03/14-03/20	Spring Break No Class		
Week 11 03/21-03/27	Analysis of Variance	Chapter 13	Homework #4 by 03/27 11:59pm
Week 12 03/28-04/03	Factorial Analysis of Variance	Chapter 14	Quiz #5 by 04/03 11:59pm
Week 13 04/04-04/10	Correlation Coefficient	Chapter 15	Homework #5 by 04/10 11:59pm
Week 14 04/11-04/17	Linear Regression	Chapter 16	Quiz #6 by 04/17 11:59pm
Week 15 04/18-04/24	Chi-Square	Chapter 17	Homework #6 by 04/24 11:59pm
Week 16 04/25-05/01	Other Statistical Procedures Final Exam	Chapters 18-21	Final Exam by 05/01 11:59pm