

BUAD 3033 BUSINESS AND ECONOMICS STATISTICS

SARAH QUINTANAR, ASSOCIATE PROF. OF ECONOMICS

Fall 2021 Syllabus

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Office Hours (all office hours will be held through Zoom):

Tues. 11:00 to 12:00 and 1:30 to 2:00

Wed. 10:00 to 12:00

Thurs. 11:00 to 12:00 and 1:30 to 2:00 PM

Also Available by Appointment

Course Description:

1. From the MSU Course Catalog:

This course introduces students to statistical application methods. Students will learn how to collect, manage, analyze, and interpret business data. Successful completion of the course will allow students to access the information obtainable from a dataset and present the information in a concise and meaningful form. Covered topics include descriptive statistics, probability theory, hypothesis testing, correlation, and regression analysis. The course emphasizes business and economic applications.

Course Specific Learning Goals:

- 1. Learn and apply statistical methods used to describe data including
 - a. Probability theory
 - b. Sampling methods
 - c. Confidence intervals
 - d. Hypothesis tests
 - e. Correlation analysis
 - f. Regression analysis

Text:

There is not a required textbook for the class, but you are expected to read your notes and work practice problems as well. Some students prefer to have a textbook to use as a reference and if so, you should refer to: Lind, Douglas A., William G. Marchal, and Samuel A. Wathen. 2013. Basic Statistics for Business and Economics. 8th ed. McGraw-Hill/Irwin, 1221 Avenue of the Americas, New York, NY, 10020.

YOU MUST READ D2L NOTES, COMPLETE HOMEWORK AND GROUP ASSIGNMENTS IF YOU HOPE TO SUCCEED IN THE COURSE.

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My response time for email or phone questions will be 24 hours at most during the weekday, and I will respond to weekend emails before the end of the day on Mondays. However, rarely will my response time really be this long.

Grading Policy:

Your grade in this class will be determined by your performance on assignments and quizzes, and three exams. The grading scale is based on a 100 point scale (A is 90 or above, B is 80 to 89, C is 70 to 79, D is 60 to 69 and F is 59 or less). The grade you receive is the grade you earn, no exceptions.

	Weight
Exam 1	20%
Exam 2	25%
Final Exam	25%
Assignments	30%

Assignments will build upon what you've learned in the chapter. These can also be thought of as problem sets like a "lab" class period with the intention that all of you are able to ask me questions as you work. If you miss a group/in-class assignment, YOU CANNOT MAKE IT UP. This is the policy regardless of why you miss the assignment. At the end of the semester I will drop 2 of these group assignments. If you are not physically in class you will be able to submit these assignments in our zoom meetings or by email to me *before the end of the class date that they were due*.

All of these assignments are meant to benefit students who work hard. Do not underestimate the importance of these assignments on your overall course grade. Assignments will always be posted in D2L at least one week before their due date.

The assignments are graded on the following scale: 5 points for handing in an adequate assignment before midnight on the day they are due, 3 points for handing in the assignment after midnight on the day they are due. There are no exceptions. There is a 2 point penalty for handing in a "poor attempt" at an assignment (which is up to my discretion- but as long as you try all the problems you will get full credit), and you will obviously receive 0 points for not handing in an assignment. Show your work for those questions where work is needed to arrive at the answer. There will be absolutely no exceptions to this grading scale.

ASSIGNMENTS MAY BE SUBMITTED FOR (AT LEAST) PARTIAL CREDIT UP UNTIL DECEMBER $2^{\rm ND}$ at midnight. After that, no assignments will get credit.

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Exams will be online, but you have the option to submit scratch work for partial credit. The scratch work must be scanned and uploaded in D2L by midnight on the day you complete your exam. To submit your scratch work:

- a. Go to the Unit you are testing on and find the dropbox folder for scratchwork (eg. If you completed Exam 1, go to the "Unit 1" folder to find the correct dropbox)
- b. scroll down to where it says "Attach File" and click "Browse My Computer"
- c. go find the file that you want to attach, click "Open" (to attach the file), finally scroll down and click "Submit".

When submitting scratch work, please scan the pages using a scanner and save all the pages into 1 single document. Please do not send 10 separate files – each containing a single scanned page. The preferred way to receive test work is for you to combine all the pages into a single file by scanning all the pages and saving the file in PDF format. Alternatively, if you cannot figure out to save all the pages in a single PDF file, you can scan the pages individually then copy and paste each scanned page into either WORD or PowerPoint and save the file that way. If you can't figure out how to scan multiple pages, then you can scan the pages individually, save each one as a PDF document then use the website http://www.pdfmerge.com/ to merge the multiple PDF documents into a single PDF document. If you don't have access to a scanner (FYI, you can buy a scanner/printer/copier at WalMart for \$39), then you can take a picture of the pages with your phone then copy those pictures into a single file and send that single file. Either way, **DO NOT SEND SEPARATE FILES FOR EACH**

INDIVIDUALLY SCANNED PAGE!! MULTIPLE SEPARATE FILES WILL NOT BE ACCEPTED!!!

There are three exams this semester- they will all be taken within D2L. If you miss an exam, your final will be weighted more heavily to account for the missed exam (for example, if you miss Exam 1, the final will be worth 45% instead of 25%). Exams **cannot** be made up—no exceptions. The tests are not open-book nor open-note. Do not consult with anyone else or any other source, other than the formula sheet given to you with your tests.

The final exam covers every chapter we will go over this semester. You must take the final exam at the time it is scheduled.

Additionally, for students to who would like to watch videos on the various topics covered in this class, Khan Academy provides some excellent ones. The link is http://www.khanacademy.org/math/probability

"Class Time"

Tuesdays will be lecture days- lectures will also be available online in video format as well as livestreamed at class time. Thursdays will be lab periods: we will work problem sets based on the chapter of material we are studying. Thursdays will be the days when you earn your "group assignment" points as listed in the grading rubric. Group assignments will be able to be completed in person OR in zoom breakout rooms. I will always be participating with you during these assignments so that you can ask questions in real-time as they come up. BUT it is important that

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you have read the materials as assigned earlier in the week so that you are able to work these problems.

Again, there are no make-up exams given and no make-up homework assignments—no exceptions.

COVID 19 Policies

Students may wear facemasks while in the Dillard Building at all times, except when making a class presentation. We'll maintain at least 6' social distancing at all times in the classroom. If you are feeling ill (no matter how minor), please do not attend the physical classroom session and instead attend class via the Zoom live stream. I plan to live stream every class session, so while you should notify me, if feasible, about any absence in advance as a professional courtesy, the live stream should be available even without advance coordination. The live stream recording will be available in D2L for two weeks after each class session.

Your Responsibilities:

I do not have a class attendance policy this semester. Please let me know if anything occurs to prevent you from completing your work- especially Thursday group assignments! You are expected to keep up with the reading assignments, attend class, and/or watch lecture videos through D2L. If you miss class, you are responsible for finding out what was covered or announced in class. I also do not provide notes for days you miss. Any work or assignments collected on days where you are absent you will receive a zero unless it is excused, and you have cleared the absence with me. There will be NO late work accepted, under any circumstances. Materials not in the text will be presented in class and may be covered on the exams.

Academic Dishonesty

Students will adhere to the highest professional and ethical standards. All work submitted will be the result of each student's own effort only. You are only allowed to work with other people during group assignments. Cheating will be penalized to the maximum allowed by the University policy which may include a final course grade of "F" and referral to the Dean of Students for disciplinary action. Though you are allowed to work together for assignments, you should submit your own work and not someone else's. Exams will always be individual.

Please refer to the "Student Honor Creed" for other questions related to academic honesty. (See "Student Handbook 2019-2020).

If you are caught using a graphing calculator or cellphone during an exam, this will <u>be</u> <u>considered a form of cheating</u> and you will be penalized accordingly.

Students with Disabilities: Your success in this class is important to me, and it is the policy and practice of Midwestern State University to create inclusive learning environments consistent with federal and state law. If you have a documented disability (or need to have a disability documented), and need an accommodation, please go to the Disability Support Services (Clark Student Center, 168) office regarding

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formal documentation for me to address specific needs and the requirements of the course. Their phone number is (940) 4140. For more information: https://msutexas.edu/student-life/disability/

Nondiscrimination: MSU adheres to a policy that enables all individuals, regardless of race, color, gender, national origin, age, sexual orientation, veteran's status, or disability to work and study in an environment unfettered by discriminatory behavior or acts. Harassment of an individual or group will not be condoned and any person – student, faculty, or staff member – who violates this policy will be subject to disciplinary action.

In order to help students keep track of their progress toward course objectives, the instructor for this class will provide a Midterm Progress Report through each student's WebWorld account for any student at risk of failing the course. Midterm grades will not be reported on the students' transcript; nor will they be calculated in the cumulative GPA. They simply give students an early warning at the midpoint of the semester. Students earning below a C at the midway point should email Dr. Q to set up a meeting to discuss potential remedies (including study habits/tutoring/etc.)

	Readings / Topics Schedule	
Week 1: August 24 and	Syllabus / What is Statistics?	
26	(Chapter 1)	
Week 2: Aug. 31 and	Describing Data: Frequency, Tables, Frequency Distributions, and	
Sept. 2	Graphic Presentation (Chapter 2)	
Week 3: Sept. 7 and 9	Describing Data: Numerical Presentations	
week 3. Sept. 7 and 3	(Chapter 3)	
Week 4: Sept. 14 and 16	Describing Data: Displaying and Exploring Data	
•	(Chapter 4)	
Week 5: Sept. 21 and 23	Survey of Probability Concepts (Chapter 5)	
	Exam 1: available on D2L Thursday 23 rd from 9:30 to 10:50	
Week 6: Sept. 28 and 30	Discrete Probability Distributions	
•	(Chapter 6)	
Week 7: Oct. 5 and 7	Continuous Probability Distributions	
	(Chapter 7)	
Week 8: Oct. 12 and 14	Sampling Methods and the Central Limit Theorem	
	(Chapter 8)	
Week 9: Oct. 19 and 21	Estimation and Confidence Intervals	
	(Chapter 9)	
Week 10:	One Sample Tests of Hypothesis	
Oct. 26 and 28	(Chapter 10)	
Week 11:	Exam 2 Review	

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Nov. 2 and 4	Exam 2: available on D2L Thursday Nov. 4 from 9:30 to 10:50
Week 12:	Two Sample Tests of Hypothesis
Nov. 9 and 11	(Chapter 11)
Week 13:	Analysis of Variance
Nov. 16 and 18	(Chapter 12)
	(Remote Assignment on November 18)
Week 14:	Correlation and Linear Regression
Nov. 23 and 25	(Chapter 13)
	Thanksgiving Break – no class Nov. 25
Week 15:	Multiple Regression Analysis
Nov. 30 to Dec. 2	(Chapter 14)
	Review for Final Exam
	Final Exam on D2L Tuesday December 7 from 8:00 to 10:00 AM: covers all chapters from the semester