Dillard College of Business Administration

Business and Economic Statistics
BUAD 3033, Section 101
Fall 2023
TR: 9:30 am – 10:50 am
Dillard Building 329

Contact Information:

Instructor: Dr. Sanchari Choudhury
Office: Dillard Building 220
Office Hours: Tuesday 12:30 pm until 2:30 pm,
                    Wednesday 1:30 pm until 2:30 pm,
                    Thursday 12:30 pm until 2:30 pm, or,
                    By appointment, or,
                    Email me at any "reasonable" time, as I am usually available via email.
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Text:

Anderson, Sweeney, Williams, Camm, Cochran, Fry and Ohlmann, Statistics for Business and Economics, 14th Edition, Cengage Learning (Required).

Accessing the e-book for this course:

There is a link in D2L where you can purchase your book on your own, or you can purchase from the booklist on your phone. Once you log into msutexasbookstore.com, enter your MSU ID# with the "M", and pay for the book with a CC.

If any of you have another entity paying for your books, you may drop by the MSU Bookstore or call them at (940) 397-4303.

Course Description:

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.

Learning Goals:

The general objective of this course is to help participants understand fundamental statistical methods and their applications to economic and business issues. One will gain an understanding and mastery of the relationship and application of statistical methods to real life issues.

A. General Learning Goals:

1. Effective critical thinking and problem-solving skills using statistical methods: Participants will demonstrate their proficiency in critical thinking and problem solving and decision-making abilities by applying statistical methods through homework, in class discussions, and exams.
2. Communication skills: Participants will demonstrate their effective and efficient communication skills when reporting results of statistical analyses.
3. Social Responsibilities: Participants will demonstrate their intercultural competency, civic knowledge, and the abilities to engage effectively in regional, national, and global economic and business issues.
4. Personal Responsibilities: Participants will demonstrate connecting choices, actions, and consequences to statistical analysis and ethics abilities.

These general learning goals represent or are related to those established by the Dillard College of Business Administration. The goals represent the skills that graduates will carry with them into their careers. While assessing student performance in obtaining these general learning goals, the College seeks to assess its programs. The assessments will assist us as we improve our curriculum and curriculum delivery.

B. Course Specific Learning Goals:

- Understand statistical methods used to describe data
- Learn probability theory
- Learn sampling methods
- Understand confidence intervals
- Understand hypothesis testing
- Conduct correlation analysis
- Conduct regression analysis

Teaching Method:

This is a face-to-face class starting on August 28, 2023, and ending on Dec 15, 2023, as per the 2023-24 academic calendar. Course material will be presented in class through lectures and discussions. Students are highly encouraged to participate regularly and ask questions at any time. In addition, PowerPoint slides and study guides on each chapter will be uploaded on D2L to assist you in learning at home and preparing for exams and assignments. However, reading the textbook (mentioned earlier) is **mandatory** to understand every concept thoroughly and perform well in the course. We may use Excel now and again for our practical learning. It will be communicated in class and/or through emails on D2L. I will be holding office hours every week (mentioned above) to answer any questions or concerns you may have. If stuck with a concept, you can also reach out to me anytime during the week —

besides the designated office hours — through email.

You are expected to regularly check D2L for homework assignments and any other announcements about this class. See the tentative course schedule below.

Course Policies:

A. Attendance Policy:

Attending class is <u>mandatory</u> unless you receive my prior approval for missing a class for **compelling reasons**. All important announcements of this course (like homework assignments, due exam dates, exam format, etc.) will be made in class. Over and above, every course material is explained and discussed in detail in class. So, failure to attend class will invariably impact your learning process and performance in this course in a negative way.

In addition to the above, attendance will be checked through assignment submissions. Missing four assignments from 08/28/2023 to 10/1/2023 will be considered excessive. Students who reach this level of missed assignments will be automatically dropped with a grade of "F" given the university attendance policy. In addition to this, missing six assignments during the semester is also excessive; students who reach this level of missed assignments will get a final grade of "F" given the university attendance policy. You may find this information in the Student Handbook and Activities Calendar at Handbook. Also, note that the classroom is not a substitute for day care facility. Hence, you cannot attend a class with a child, and if you still choose to do so, you will be asked to leave immediately and counted as absent.

Lastly, you are expected to settle down in the classroom at least a minute before the class formally starts. No late entry will be allowed because once the class starts, the door will be locked from the inside. Entering class late and leaving before time is not allowed unless my prior approval is taken for some compelling reasons. You are also not supposed to walk in and out of the class while the lecture is on (which disturbs both your instructor and your classmates, so be respectful to all).

B. Other Course-Related Policies

Academic Integrity:

As for academic honesty, students must follow the "Student Honor Creed" presented in the Student Handbook of MSU TX, and failure to do so will call for sanctions.

Also, since all your assignments will be conducted through D2L, academic integrity is also applicable in this case. If I learn of students sharing the quiz/assignment contents in any way, that is a breach of academic integrity on all parties' part. Please don't do that, as I don't want to give everyone involved a 0 for the assignments (and potentially an F for the course).

Americans with Disability Act:

Any student who, because of a disability, may require special arrangements in order to

meet the requirements of this course should contact the instructor as soon as possible to make necessary arrangements. Students must present appropriate verification from the University's Disability Support Services (DSS) office to the instructor over email or virtual office hours. Please note that instructors are not allowed to provide any accommodations to a student on the basis of disability until appropriate verification from DSS has been provided by the student. (See the section on "Disability Support Services" in the Student Handbook for reference).

Campus Carry Policy

Senate Bill 11 passed by the 84th Texas Legislature allows licensed handgun holders to carry concealed handguns on campus, effective August 1, 2016. Areas excluded from concealed carry are appropriately marked, in accordance with state law. For more information regarding campus carry, please refer to the University's webpage at campus handgun policy.

Syllabus Change Policy:

This syllabus is a guide for the course and is subject to change with advanced notice.

Correspondence:

All email correspondence must be conducted using your **Midwestern State University (MSU) email** only. I will not respond to any question sent from any other email account. It is highly recommended that you regularly monitor both your MSU email account and that of D2L. For your own convenience, I suggest that you link your D2L emails with your MSU email account such that any incoming message to your D2L account will get automatically forwarded to your MSU email account. Note that grades will be posted on D2L and on MSU Banner and not sent over email.

Technical Support:

I, as your instructor for the business and economics statistics class, can only ensure that all the course materials are in working order, but beyond that, I cannot provide any technical support to a student's hardware/software problems. For problems related to D2L, a student is recommended to contact MSU Distance Education.

Late Submissions:

For homework assignments, I highly recommend that students not wait until the last minute to make their submissions. Since all your assignments, case studies, and exams will be through D2L, we are heavily dependent on technology that may decide to abandon us at a crucial moment. Therefore, start working on assignments in advance. Any late submission needs prior permission from me and will automatically incur a penalty of ten points unless provided with a compelling reason.

For exams, no make-up exam will be allowed unless a student requests my approval in

advance *and* for compelling reasons. If you miss an unexcused exam, you receive a zero, and there is **no** exception to this policy.

Lastly, if you have any questions or concerns about your grades, bring that to my attention within one week of the homework/exam is graded.

Monitoring of Exams:

All exams taken on D2L will require Respondus Lockdown Browser and Webcam monitoring. So, every student is expected to have access to a webcam from the beginning of the semester. However, these monitoring tools are **not** compatible with Chromebook laptops, Phones, and Tablets. iPad can be used, but you need to allow it in the setup. Contact [MSU Distance Education](#) to get proper instructions to execute this.

Classroom Decorum:

You do not need a laptop in class unless you are more comfortable taking notes there than using pen and paper (even though the latter is recommended since many graphs and diagrams will be drawn on the whiteboard while lecturing). Besides, we may use the computer labs now and again for our practical learning through Excel.

Usage of cell phone or any other device is strictly prohibited in class. If a student is caught doing so, he/she will be prompted to leave the class immediately. All electronic devices must be kept away and muted.

Grading and Evaluation Measures:

Exams: There will be three (non-cumulative) exams altogether, each of equal weight (19% each). So, **57% of your final grade** depends on your exam performance. This will mainly test your problem-solving ability as you need to *recognize the concept(s)* embedded in each question and then *apply* the concepts learned throughout the course to answer the question correctly. There will be hardly any direct questions in these exams. So, understanding the materials is the only way to succeed in this course, not rote learning.

Homework Assignments:
There will be altogether 14 homework assignments, each based on a chapter. These will help you prepare for your exams. But you will never get exactly the same questions on your exams. These assignments will together contribute to **20% of your final grade**. As the course progresses, more information and details will be communicated through emails and on D2L.

Case Study: There will be two case studies altogether in this course that will contribute to **18% of your final grade.** This will evaluate the practical learning aspect of the materials. As we progress, detailed instructions about this assignment will be communicated through

emails and on D2L.

Excel Certification: 5% of your final grade will depend on an Excel Certification exam that will ensure you are proficient in working with the Excel software package to manage basic data analysis with it. This will be discussed in more detail in class, and you will get two attempts in total to successfully receive the certification.

Every student is expected to be in touch with me throughout the semester regarding their performances and grades to avoid any semester-end "surprises."

Grading Scale:

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = <60%

Note: Final grades MAY be curved depending on the situation and the instructor's discretion. If a curve is implemented in the current semester, students will be communicated about the same before posting the final grades.

Class Schedule:

First day of class: August 29 (Tuesday)
Last day of class: December 7 (Thursday)
Last day for "W":   October 30 (Monday) by 4 pm (drops after this will receive "F")
No Class/Office Hours: Thanksgiving Break: Nov 22 (Wednesday) – Nov 23 (Thursday)
Exam 1:   September 26 (Tuesday) *(tentative)*
Exam 2:   November 7 (Tuesday) *(tentative)*
Exam 3:   December 12 (Tuesday) *(confirmed)*

Course Schedule (<u>tentative</u>)

Weekly Modules	Chapters	Homework Assignments
Week 1 (August 29 – Sept 4)	Go through syllabus thoroughly 1 (Data and Statistics)	HW 1: due Sept 4 (Monday)
Week 2 (September 5 – 11)	2 (Descriptive Stats: Tables & Graphs) 3 (Descriptive Stats: Numerical Measures)	HW 2 and HW 3: due September 11 (Monday)
Week 3 (September 12 - 18)	4 (Probability Theory)	HW 4: due September 18 (Monday)
Week 4 (September 19 – 25)	5 (Discrete Probability Distributions)	HW 5: due September 25 (Monday)
Week 5 (Sept 26 – Oct 2)	**Review 1, 2, 3, 4 and 5** Work on the First Case Study	**Exam 1**: due Sept 26 (Tuesday) Case Study I: due September 28 (Thursday)
Week 6 (Oct 3 – 9)	6 (Continuous Probability Distributions)	HW 6: due October 9 (Monday)
Week 7 (October 10 - 16)	7 (Sampling)	HW 7: due October 16 (Monday)
Week 8 (October 17 – 23)	8 (Interval Estimation)	HW 8: due October 23 (Monday) Excel Certification - Attempt 1: due Oct 23 (Monday)
Week 9 (October 24 - 30)	9 (Hypothesis Testing)	HW 9: due October 30 (Monday)
Week 10 (October 31 – Nov 6)	10 (Two Populations)	HW 10: due Nov 6 (Monday)
Week 11 (November 7 – 13)	**Review 6, 7, 8, 9 and 10** Work on the Second Case Study	**Exam 2: due Nov 7 (Tuesday)** Case Study II: due Nov 9 (Thursday)
Week 12 (November 14 - 20)	11 (Population Variances)	HW 11: due November 20 (Monday)
Week 13 (November 21 - 27) *with Thanksgiving break from November 21 (10 p.m.) – Nov 26*	12 (Multiple Proportions and Goodness of Fit)	HW 12**:** due November 27 (Monday**)**
Week 14 (November 28 – Dec 4)	14 (Simple Linear Regression)	HW 13: due Dec 4 (Monday) Excel Certification - Attempt 2: Dec 4 (Monday)
Week 15 (Dec 5 – 11)	15 (Multiple Regression)	HW 14: due Dec 11 (Monday)
Week 16 (December 12 – 15)	**Review 11, 12, 14 and 15**	**Exam 3**: **due December 12 (Tuesday) at 8 am as per university schedule**