

# **Dillard College of Business Administration**

# **Business and Economic Statistics**

BUAD 3033, Section X-40 Summer II, 2023 Online

# Contact Information:

Instructor: Dr. Sanchari Choudhury Office: Dillard Building 220 Contact: <u>sanchari.choudhury@msutexas.edu</u> Email me at any "reasonable" time, as I am usually available via email.

## Text:

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

BUAD 3033 is included in the MSU Texas Access & Affordability Program for the Summer semester. What does this mean?

- Your course material is in D2L on the first day of class, for everyone in your class. Your Professor opted to have this course in the program to save you time and money.
- The money saving charge (\$43.75 + \$3.61 tax) has been added to your student account. Comparable pricing: Pub website= \$50.00 before tax.
- You have the choice to "opt out" of this special pricing and find your material on your own. If you prefer to "opt out", the instructions will be in your my.msutexas.edu email on the second day of class. Follow the instructions included therein.

For questions concerning the program or if you need assistance, please contact the Bookstore at follettaccess@msutexas.edu.

# **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 an online class starting on July 10, 2023, and ending on August 10, 2023 as per the 2022-23 academic calendar. The two main learning modes here are reading the textbook and watching the lecture videos I will upload on critical concepts. Reading the textbook (mentioned earlier) is **mandatory** to understand every concept thoroughly and perform well in the course because lecture videos cannot possibly include every detail of a concept. Power-point slides and study guides on each chapter will also be uploaded on D2L to *assist* your learning. We will use Excel now and again for our practical learning. It will be communicated through emails and lecture videos on D2L. Moreover, you can reach out to me anytime during the week through email (see above under "Contact Information") if you are stuck with anything or have any questions.

The entire course is divided into four modules. We will move from one module to the other sequentially. The first three modules will follow the same pattern: every day, we will focus on one chapter only and cover the required number of chapters for the module in this way (usually 4-5 chapters in each module). Then review these materials for one day for HW assignments. Then submit all the HW assignments the following day. Then again, review the materials for a day before the exam. The following day, take the exam on these specific chapters covered in the module.

The fourth (or the last) module will include two case studies. You will work on each for two days and submit it at the end of the second day. Please refer to the course schedule given at the end of this syllabus to get an idea about the structure. The same is provided on D2L. All the assignments, including exams, will be conducted through D2L. Instructions for every assignment will be available on D2L and communicated through emails. You are expected to check your D2L email regularly for any announcements about this class.

## Course Policies:

## A. Attendance Policy:

Since this is an online class, attendance will be checked through assignment submissions. Missing 4 assignments or an exam from 07/10/2023 to 07/16/2023 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 6 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 <u>Handbook</u>.

# **B.** Other Course Related

## **Policies Academic Integrity:**

As for academic honesty, students must follow the "Student Honor Creed" presented in the <u>Student Handbook of MSU TX</u> 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 <u>campus handgun policy</u>.

## Syllabus Change Policy:

This syllabus is a guide for the course and is subject to change with an 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 your both 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 D2L account will get automatically forwarded to your MSU email account. Note, grades will be posted on D2L and on MSU Banner and not sent over email.

#### **Technical Support:**

I, as your instructor for an economics 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 <u>MSU Distance Education</u>.

## 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 Laptop, Phones and Tablets. iPad can be used but you need to allow it in the setup. Contact <u>MSU Distance Education</u> to get proper instructions to execute this.

## Grading and Evaluation Measures:

**Exams:** There will be three (non-cumulative) exams altogether, each of equal weight (20% each). So, **60% 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, <u>understanding</u> the materials is the <u>only</u> way to succeed in this course, <u>not</u> 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 **20% 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.

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:	July 10 (Monday)
First day of class:	August 10 (Thursday)
Last day for "W":	July 27 (Thursday) by 4 pm (drops after this will receive "F")
Exam 1:	July 19 (Wednesday) ( <i>definite</i> )
Exam 2:	July 28 (Friday) ( <i>definite</i> )
Exam 3:	Aug 5 (Saturday) ( <i>definite</i> )

## Course Schedule (tentative)

Course Modules	Chapters	Homework Assignments
July 10 (Monday)	Go through syllabus thoroughly	Understand the course structure and the deadlines
Module 1 (July 11 – 19)	Chap 1 (Data and Statistics): July 11 (Tuesday)	Review for HW: July 16 (Sunday)
	Chap 2 (Descriptive Stats: Tables & Graphs): July 12 (Wednesday)	HW 1, HW 2, HW 3, HW 4, and HW 5: due July 17 (Monday)
	Chap 3 (Descriptive Stats: Numerical Measures): July 13 (Thursday)	Review for Exam: July 18 (Tues)
	Chap 4 (Probability Theory): July 14 (Friday)	Exam 1: July 19 (Wednesday)

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	Chap 5 (Discrete Probability Distributions): July 15 (Saturday)	
Module 2 (July 20 – 28)	Chap 6 (Continuous Probability Distributions): July 20 (Thursday)	Review for HW: July 25 (Tuesday)
	Chap 7 (Sampling and Sampling Distributions): July 21 (Friday)	HW 6, HW 7, HW 8, HW 9, and
	Chap 8 (Interval Estimation): July 22 (Saturday)	HW 10: due July 26 (Wednesday)
	Chap 9 (Hypothesis Testing): July 23 (Sunday)	Review for Exam: July 27 (Thursday)
	Chap 10 (Two Populations): July 24 (Monday)	Exam 2: July 28 (Friday)
Module 3 (July 29 – Aug 5)	Chap 11 (Population Variances): July 29 (Saturday)	Review for HW: Aug 2 (Wednesday)
	Chap 12 (Multiple Proportions and Goodness of Fit): July 30 (Sunday)	HW 11, HW 12, HW 13, and HW 14: due Aug 3 (Thursday)
	Chap 14 (Simple Linear Regression): July 31 (Monday)	Review for Exam: Aug 4 (Friday)
	Chap 15 (Multiple Regression): Aug 1 (Tuesday)	Exam 3: Aug 5 (Saturday)
Module 4 (Aug 6 – 9)	Work on Case Study 1: Aug 6-7 (Sunday-Monday)	Case Study I due: Aug 7 (Monday)
	Work on Case Study 2: Aug 8-9 (Tuesday-Wednesday)	Case Study II due: Aug 9 (Wednesday)
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