Economics 302
Business and Economic Statistics
Fall 2022

Professor: Asli K. Ogunc
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Office: BA 210
Live zoom lecture: Tuesdays at 6:30
Text: D. A. Lind/W. G. Marchal/S. A. Wathen,
                     Statistical Techniques in Business &
                     Economics – McGraw Hill Irwin, 18e Year:
                     2021,
                     SBN(ebook): 9781260788785
                     ISBN (rental): 9781260239478

Appointments: online: https://drogunc.youcanbook.me/
                    Drop in hours: Tuesdays & Thursdays at
                    10:30 am – 12:00

Important Dates: Please refer to the academic calendar at
                       https://calendar.tamuc.edu/academic

Course Description: A course dealing with statistical concepts including measures of central tendency and dispersion, probability distributions, the Central Limit Theorem, sampling, estimation, hypothesis testing, correlation and regression analysis.

Course Prerequisites: Lvl U MATH 176 Min Grade C or Lvl U MATH 1325 Min Grade C)

Course Objectives: Student Learning Outcomes: The objective of this course is to provide an understanding for the undergraduate business student on statistical concepts to include measurements of location and dispersion, probability, probability distributions, sampling, estimation, hypothesis testing, regression, and correlation analysis, multiple regression and business/economic forecasting. By completing this course, the student will learn to perform the following:

COB Student Learning Outcomes (SLOs)	Course Outcomes - After successfully completing this course, students will be able to:	Measurement Methods (Outcome Assessments)
2, 3, 5	• Calculate, apply, and interpret the measures of location and measures of dispersion. • Understand the probability distributions and apply discrete and continuous probability distributions to various business problems. • Understand the importance of CLT and its implications. • Understand the concepts of inference and its importance in decision making. • Understand null and alternative hypotheses, and type I and type II errors, and perform test of hypotheses. • Calculate confidence interval for a population parameter for a single mean, including use of the "t" and the "Z" tests. • Compute and interpret the results of Bivariate and Multivariate Regression and Correlation Analysis.	• Weekly chapter quizzes (2, 3, 5) • Discussions (2)

<p style="text-align: center;">TENTATIVE COURSE OUTLINE*</p>

UNIT 1:   Chapter 1: What is Statistics
Chapter 2: Describing Data
Read Only: Friday September 2– Saturday, September 3

Chapter 3: Describing Data: Numerical Measures
Quiz 1   Friday, September 9– Saturday, September 10

UNIT 2:   Chapter 4: Describing Data: Displaying & Exploring Data
Quiz 2   Friday, September 16– Saturday, September 17

Chapter 5: Probability
Quiz 3   Friday, September 23– Saturday, September 24
Discussion 1   Friday September 23

UNIT 3:   Chapter 6: Discrete Probability Distributions
Quiz 4   Friday, September 30– Saturday, October 1

Chapter 7: Continuous Probability Distributions
Quiz 5   Friday, October 7– Saturday, October 8
Discussion 2   Friday October 7

UNIT 4:   Chapter 8: Sampling Methods & the Central Limit Theorem
Quiz 6   Friday, October 14– Saturday, October 15

UNIT 5:   Chapter 9: Estimation & Confidence Intervals
Quiz 7   Friday, October 21– Saturday, October 22

Chapter 10: One-Sample Test of Hypothesis
Quiz 8   Friday, October 28– Saturday, October 29
Discussion 3   Friday October 28

UNIT 6:   Chapter 11: Two-Sample Test of Hypothesis
Quiz 9   Friday, November 4– Saturday, November 5

Chapter 12: ANOVA
Quiz 10   Friday, November 11– Saturday, November 12
Discussion 4   Friday November 11

UNIT 7:   Chapter 13: Linear Regression & Correlation
Chapter 14: Multiple Regression
Quiz 11   Friday, November 18– Saturday, November 19

UNIT 8   Chapter 15: Chi Square Applications
Quiz 12   Friday, December 2– Saturday, December 3
Discussion 5   Friday December 2

Final Exam (comprehensive) THURSDAY DECEMBER 15
*This outline is subject to change! Please check your email daily.

GRADES AND ADMINISTRATIVE MATTERS:

Exams: There will be a final exam and 12 quizzes that will be open EVERY Friday- Saturday for 48 hours. I will automatically drop 2 of your lowest 12 quizzes. You will be taking these quizzes and test online and the quizzes will be timed. There will be no make-up quizzes/exams/discussions if the deadline is missed.

Grading: The grades will be based on final exam (25 points), 10 quizzes (6 points each), 5 discussions (15 points total). Missed quizzes or late discussions will not be graded. The grading scale is

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
Below 50	F

HELPFUL HINTS

SINCE this is an online course, you need to follow your school emails very regularly. You will have regular announcements and uploads. Reading the assigned materials, listening to live (or archived) lectures, working the book exercises, being in constant communication with your instructor, checking the course shell regularly are very important learning tools.

Listening to the archived lectures ***is a course requirement***. Please listen to the archived recordings and contact me for further explanations or questions via the email. In case of live lectures, to be able to use the chat platform for e-College, you will need a headset with earphones and a microphone. For more detailed instructions as to how to use live lecture tool, please check out the information on the landing page of e-College under student resources.

RULES, REGULATIONS AND OTHER STUFF
All students enrolled at the university shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment (See Student Guidebook). Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette http://www.albion.com/netiquette/corerules.html

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

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Office of Student Disability Resources and Services
Gee Library, Room 132
Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.edu

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The College of Business at Texas A&M University-Commerce students will follow the highest level of ethical and professional behavior. Actionable Conduct includes illegal activity, dishonest conduct, cheating, and plagiarism. Failure to abide by the principles of ethical and professional behavior will result in sanctions up to and including dismissal from the university.

PLAGIARISM   Plagiarism represents disregard for academic standards and is strictly against University policy. Plagiarized work will result in an **"F"** for the course and further administrative sanctions permitted under University policy. Guidelines for properly quoting someone else's writings and the proper citing of sources can be found in the APA Publication Manual. If you do not understand the term "plagiarism", or if you have difficulty summarizing or documenting sources, contact your professor for assistance.

STUDENT WORKLOAD   University graduate students are expected to dedicate a minimum of *90 clock hours* during the term/semester for a 3SH course delivered online.

Nondiscrimination Notice Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to 10 ((http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesPr ocedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

ACCESS AND NAVIGATION
This course will be facilitated using D2L, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to http://www.tamuc.edu/myleo.aspx. Click on the app tab after logging in. D2L can be found on the app page toward the bottom of the page. You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or helpdesk@tamuc.edu.

Browser support D2L is committed to performing key application testing when new browser versions are released. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you

encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers. Note the following:

• Ensure that your browser has JavaScript and Cookies enabled.
 • For desktop systems, you must have Adobe Flash Player 10.1 or greater.
• The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

<u>Desktop Support</u>
Microsoft®/internet Explorer is not supported
For Mozilla® Firefox® Google® Chrome™ Apple® Safari® use the latest versions.

<u>Tablet and Mobile Support</u>
*Android™ Android 4.4+ Chrome Latest version
*Apple iOS® Safari, Chrome The current major version of iOS (the latest minor or point release of that major version) and the previous major version of iOS (the latest minor or point release of that major version). For example, as of June 7, 2017, D2Lsupports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version. Chrome: Latest version for the iOS browser.
*Windows Windows 10 Edge, Chrome, Firefox Latest of all browsers, and Firefox ESR.

You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
 o 512 MB of RAM, 1 GB or more preferred
 o Broadband connection required courses are heavily video intensive
 o Video display capable of high-color 16-bit display 1024 x 768 or higher resolution •

You must have a:
 o Sound card, which is usually integrated into your desktop or laptop computer
 o Speakers or headphones.
 o *For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.

• Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: JAVA web site <u>http://www.java.com/en/download/manual.jsp</u>
• Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported. Pop-ups are allowed. JavaScript is enabled. Cookies are enabled. •

You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:

o Adobe Reader https://get.adobe.com/reader/ 8
o Adobe Flash Player (version 17 or later) https://get.adobe.com/flashplayer/
o Adobe Shockwave Player https://get.adobe.com/shockwave/
o Apple Quick Time http://www.apple.com/quicktime/download/ \

• At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

Technical Support: If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778 or click on the Live Chat or click on the words "click here" to submit an issue via email.