

WACO, TEXAS

COURSE SYLLABUS AND INSTRUCTOR PLAN

BUSINESS STATISTICS

BUSI 2305.01

CURTIS W. ATCHLEY, PH.D

NOTE: This is a 16-week course.

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SPRING 2020

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Course Description:

Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. (BUSI 2305 I included in the Business Field of Study.)

Prerequisites and/or Corequisites:

MATH 1314 – College Algebra or MATH 1324 – Mathematics for Business & Social Sciences or equivalents BCIS 1305 or 1405 – Business Computer Applications or equivalents

Course Notes and Instructor Recommendations:

Welcome to this business statistics course. Not only is statistics a vital component of quantitative research, as will be demonstrated, statistics also serves a vital role within the business environment.

I utilize current technology in all my courses, so all my presentations will involve computer technology in one form or another to include an extensive use of Microsoft Excel. Even though this is a face-to-face course, I do utilize Brightspace in a limited capacity, so get in the habit of checking Brightspace frequently because this is the way I communicate with students outside of the classroom.

Instructor Information:

Instructor Name: Dr. Curtis W. Atchley E-mail: catchley@mclennan.edu or catchley@tarleton.edu Office Phone Number: 254-299-8785 Office Location: MAC #119 Office/Teacher Conference Hours: Monday, Tuesday & Thursday from 3:00pm to 6:00pm and Wednesday from 11:00am to 12:30pm

Required Text & Materials:

Title: Business Statistics: A First Course

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Author: Levine, Szabat, & Stephan Edition: 8th Publisher: Pearson ISBN: 978-0-13-517778-5 **MCC Bookstore Website:** http://www.mclennan.edu/bookstore/

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at http://www.mclennan.edu/campus-resource-guide/

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources, we encourage you to contact a success coach by calling (254) 299-8226. Students can visit the Completion Center Monday-Friday from 8:00 a.m.-5:00 p.m. to meet with a success coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) is open 12:00 p.m.-1:00 p.m., Monday-Friday, without an appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be contacted/notified through your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

* Click Here for the Minimum System Requirements to Utilize MCC's D2L|Brightspace (www.mclennan.edu/center-for-teaching-and-learning/teaching-commons/requirements) Click on the link above for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

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Methods of Teaching and Learning:

This material in this course will be presented using a combination of lecture and problem solving. Exams will be the primary method to evaluate the learning process. The exams in this course will include both theoretical questions and problem-solving questions.

Course Objectives and/or Competencies:

Upon successful completion of this course, students will:

- Describe the random processes underlying statistical studies.
- Calculate and use probability in solving business problems.
- Compute descriptive statistics, construct graphs for data analysis, and interpret outcomes.
- Compute and interpret measures of central tendency and dispersion.
- Calculate expected values to evaluate multiple outcomes of a decision.
- Describe, interpret, and apply discrete and continuous probability distributions.
- Construct and interpret confidence intervals for means and proportions.
- Formulate, perform, and interpret hypotheses tests (one and two population parameters).
- Calculate, evaluate, and interpret simple linear correlation/regression.
- Use statistical software to graph, compute, and analyze statistical data.

Course Outline or Schedule:

Week 1 (1/15) - Introduction to include covering syllabus and navigating through Brightspace course; Chapter 1 (defining and collecting data)

Week 2 (1/22) - Chapter 2 (organizing and visualizing variables)

Week 3 (1/29) - Chapter 3 (numerical descriptive measures)

Week 4 (2/5) - Chapter 4 (basic probability)

Week 5 (2/12) - Exam #1 (Ch. 1, 2, 3, 4)

Week 6 (2/19) - Chapter 6 (the normal distribution)

Week 7 (2/26) - Chapter 7 (sampling distributions)

Week 8 (3/4) - Chapter 8 (confidence interval estimation)

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Week 9 (3/11) - No Class (Spring Break)

Week 10 (3/18) - Chapter 9 (fundamentals of hypothesis testing: one-sample tests)

Week 11 (3/25) – Exam #2 (Ch. 6, 7, 8, 9)

Week 12 (4/1) - Chapter 10 (two-sample tests and one-way ANOVA)

Week 13 (4/8) - Chapter 12 (simple linear regression)

Week 14 (4/22) - Chapter 13 (multiple linear regression)

Week 15 (4/29) - Exam #3 (Ch. 10, 12, 13)

Week 16 (5/6) - Concept Final Exam

Course Grading Information:

(Using Homework)	(Not Using Homework)	A: 90% & above
Exam #1 – 27%	Exam #1 – 30%	B: 80% to 89%
Exam #2: - 27%	Exam #2 – 30%	C: 70% to 79%
Exam #3 – 26%	Exam #3 – 30%	D: 60% to 69%
Concept Final – 10%	Concept Final – 10%	F: 59% & below
Homework – 10%	Total – 100%	
Total – 100%		

Homework:

Each homework assignment will be worth 10.00 pts and you will be allowed to drop your lowest homework score. For the homework assignments, a check figure will be provided, which is oftentimes the solution to the problem. Simply copying and submitting this solution check figure will not equate to a homework assignment being properly completed; therefore, no points will be awarded. Students must show their work on how they arrived at the solution to each homework problem for points to be awarded. This check figure is simply provided to allow students to determine if they are working the problem correctly.

Exams:

All the exams will be open book and open note (NOT open Internet – ie. google search). However, you need to use your resources as a crutch and not life support! If you come into these

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exams unprepared, just because they are open book/note, you will not finish these exams in the time allotted if you are having to study for and take the exam in the same sitting.

Late Work, Attendance, and Make Up Work Policies:

All homework assignments will be submitted through Brightspace no later than 30 minutes prior to the start of class. Only homework properly submitted will be graded – do not even try to email homework assignments, as they will be promptly deleted.

Regarding exams, I do take family emergencies and extenuating circumstances very seriously and I will work with students in administering make-up exams as long as the emergency/circumstance is brought to my attention prior to the date when the exam is to be administered.

Student Behavioral Expectations or Conduct Policy:

Students will find it beneficial before attending each class session to be familiar with the material to be covered for that session. There will be a significant amount of information covered in this course; thus, it will be crucial to attend class and stay involved in comprehending the material being presented. You will find that should you start falling behind, it will be very difficult to get caught up.

Disclaimer:

The instructor reserves the right to make modifications to this information throughout the semester. The course schedule is tentative. The instructor reserves the right to change this syllabus at any time. A Brightspace announcement will be posted to inform students of any revisions made to the syllabus.

* Click Here for the MCC Academic Integrity Statement

(www.mclennan.edu/academic-integrity)

The link above will provide you with information about academic integrity, dishonesty, and cheating.

* Click Here for the MCC Attendance/Absences Policy (www.mclennan.edu/highlander-guide/policies)

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Click on the link above for the college policies on attendance and absences. Your instructor may have guidelines specific to this course.

Accommodations/ADA Statement

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. Instructors should not provide accommodations unless approved by the Accommodations Coordinator. For additional information, please visit mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu 254-299-8122 Room 319, Student Services Center

* Click Here for more information about Title IX

(www.mclennan.edu/titleix)

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at <u>titleix@mclennan.edu</u> or by calling Dr. Drew Canham (Vice President for Student Success) at 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC by calling 299-8210. The MCC Student Counseling Center is a confidential resource for students.

McLennan's Title IX webpage (<u>http://www.mclennan.edu/titleix/</u>) contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape,

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acquaintance rape, sexual assault, sexual harassment, stalking, dating violence or domestic violence.

* You will need to access each link separately through your Web browser (for example: Internet Explorer, Mozilla, Chrome, or Safari) to print each link's information.