## Economics 502 Quantitative Analysis for Management Spring 2018

Professor:	Asli K. Ogunc	
Email:	Asli.Ogunc@tamuc.edu	
Office:	BA 102A	
Phone:	(903) 886-5677	
Fax:	(903) 886-5601	

Text: D. A. Lind/W. G. Marchal/S. A. Wathen, Statistical Techniques in Business & Economics – McGraw Hill Irwin, 17e Year: 2018, ISBN: 9781259666360 (978-1-259-66636-0).

**<u>Course Description:</u>** 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.

**<u>Course Prerequisites</u>**: 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:

 Calculate and apply measures of location and measures of dispersion.
Apply discrete and continuous probability distributions to various business problems.

3) Understand the concepts of null and alternative hypotheses, and type I and type II errors, and perform test of hypotheses. Moreover, the student is able to calculate confidence interval for a population parameter for a single mean, including use of the "t" and the "Z" tests.

4) Compute and interpret the results of Bivariate and Multivariate Regression and Correlation Analysis.

# **TENTATIVE COURSE OUTLINE\***

Week 1:	What is Statistics Describing Data	Chs. 1 & 2 Read Only
	Describing Data: Numerical Measures	Ch.3 Quiz
Week 2:	Describing Data: Displaying & Exploring Data Probability	Ch 4 Ch. 5 Quiz Discussion 1
Week 3:	Discrete Probability Distributions	Ch. 6 Quiz
Week 4:	Continuous Probability Distributions	Ch. 7 Quiz
Week 5:	Sampling Methods & the Central Limit Theorem Discussion 2	Ch. 8 Quiz
Week 6:	Estimation & Confidence Intervals	Ch. 9
Week 7:	One-Sample Test of Hypothesis Discussion 3	Ch.10 Quiz
Week 8:	Two-Sample Test of Hypothesis	Ch. 11 Quiz
Week 9:	ANOVA	Ch. 12 Quiz
Week10:	Linear Regression & Correlation	Ch. 13
Week11:	Multiple Regression	Quiz Ch. 14
Week 12	Chi Square Applications Discussion 4	Ch. 15 Quiz
Week 13	Final Exam Discussion 5	Final Exam

<u>\* This outline is subject to change! Regular YouSeeU attendance (live or archived) is required to follow up with these changes, discussions, and the additional assignments.</u>

#### **GRADES AND ADMINISTRATIVE MATTERS:**

<u>Exams:</u> There will be a final exam and 12 quizzes (you will be able to drop 2 quiz). You will be taking these quizzes and test online; you should get familiar with both the eCollege. Each quiz and exam will open for a limited time. There will be no make-up quizzes/exams if the deadline is missed. If you had a legitimate excuse to miss a quiz, the credit will go to your final, otherwise, I will drop those quizzes as part of the 2 drops you are allowed.

<u>Grading:</u> The grades will be based on final exam (30 points), 10 quizzes (5 points each), 5 discussions (10 points), and engagement – participation (10 points). The grading scale is

90 - 100	Α
80 - 89	В
70 - 79	С
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 Class Live sessions, working the assigned exercises, being in constant communication with your instructor, checking the class website regularly are very important learning tools.

**YouSeeU**: This is our new system we are using. Live attendance is strongly encouraged but is not required. However, listening to the archived lectures or recordings is a course requirement. In case you miss a session, please listen to the archived recordings and contact me for further explanations or questions via the email. To be able to use the chat platform for e-College, you will need a head-set with earphones and a microphone. For more detailed instructions as to how to use YouSeeU, please check out the information on the landing page of e-College under student resources.

#### **RULES, REGULATIONS AND OTHER STUFF**

 $\checkmark$  All students enrolled at the university shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.

✓ 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: Office of Student Disability Resources and Services, Texas A&M University-Commerce, Halladay Student Services Building Room 162 A/D, Phone (903) 886-5150 or (903) 886-5835, Fax (903) 468-8148, <u>StudentDisabilityServices@tamucommerce.edu</u>

✓ 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. The College of Business and Technology 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.

✓ A&M-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.