

## ECO-302 BUSINESS and ECONOMIC STATISTICS

### ONLINE COURSE SYLLABUS

Fall 2018

Instructor: Dr. Mostafa Malki

Phone:

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Office Hours: By appointment as needed

This is an online course; therefore, **expect most communication to be online** as well. The best way to contact me is by email. Please ONLY send emails to [mostafa.malki@tamuc.edu](mailto:mostafa.malki@tamuc.edu). All emails must include ECON-302 and your section in the subject line. I will respond to emails within a 48 hour time period (not including weekends).

**COURSE DESCRIPTION:** Statistics for Business and Economics first reviews the basic concepts of statistical inference: central tendency and dispersion, probability distributions, the Central Limit Theorem, sample variability, estimation with confidence intervals, and tests of statistical significance. The course then extends inference by looking into: (i) small-sample tests for averages (t-test); (ii) hypothesis tests comparing two sample averages; and (iii) Chi-square tests. The course finally introduces the student to simple regression (fitting a line to a scatter plot) and multiple regression (the generalization of the regression technique to more than one explanatory variable).

### **COURSE OBJECTIVES:**

You will explore and describe data, examine sampling distributions, make estimations, test hypotheses, perform simple and multiple regression analysis, and build models working both independently and collaboratively.

These applications will guide you to:

1. Explain the concepts of descriptive statistics and use sample statistics to make inferences about population characteristics;
2. Recognize different models of statistical processes such as hypothesis testing and linear and multiple regression, etc.;

3. Explain statistical processes and choose which process to use for particular data analysis applications;
4. Learn to interpret statistical results as a basis for decision making;
5. Learn to use applicable statistics software;
6. Collaborate effectively to use statistical analysis to address business challenges

**Course Prerequisites:** Math 141, 175 or equivalent.

**TEXTBOOK AND OTHER REQUIRED MATERIALS:**

D. A. Lind/W. G. Marchal/S. A. Wathen, **Statistical Techniques in Business & Economics** – McGraw Hill Irwin, 15th edition ISBN-13: 978-0-07-340180-5

**GRADING POLICY OF ACTIVITIES AND COURSE:**

Evaluation of student performance will be based upon four equally weighted exams. Each exam will count 25% of the course grade. There is no comprehensive final exam. Grades for the course will be determined by achieving the following average ranges:

Percentages for course grade level are as follows:

- A= 90-100%
- B= 80-89%
- C = 70-79 %
- D= 60-69%
- F= 00-59%

**Extra credit work will NOT be assigned so please do not ask.**

**Tentative Course Schedule:**

**Please Note:** The instructor reserves the right to change this schedule as circumstances may dictate. All changes to this schedule will be announced on the course homepage.

**Successful Completion of ECON-302 Requires:**

**Academic Honesty:** All students are required to submit an agreement to follow the principles of the highest level of ethical and professional behavior.

**Quizzes:** There will be weekly quizzes given to assess your understanding of course material and assigned chapters. See the course schedule for approximate due dates.

**Exams:** There will be four exams given to assess your understanding of course material and progress. The exams will be based on material and on quizzes assigned. See the course schedule for approximate due dates.

**Please note: Extensions or Make-ups will NOT be given. If a student misses the deadline for a quiz, the student will earn a grade of zero.**

### **Students with Disabilities:**

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

Gee Library

Room 132

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

[StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)

Students are held individually responsible for the information contained in the University catalog. Failure to read and comply with University regulations will not exempt students from whatever penalties they may incur.

- “All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.”
- Students enrolled in on-line courses have the same rights and responsibilities as students in live- taught courses.
- Refer to Student’s Guide Book located at: [www.tamu-commerce.edu/studentlife/guidebook.htm](http://www.tamu-commerce.edu/studentlife/guidebook.htm)

**PROFESSIONAL CONDUCT:** The instructor reserves the right to manage a positive learning environment and thus will not tolerate inappropriate conduct in the course. If I feel that you have not contributed appropriately in class, or that you have complained about assignments and grading policies, your final course grade may be reduced accordingly. Additionally, I expect every student to maintain a professional level with respecting opinions of the instructor, students, and guest speakers. Please note: It is the student’s responsibility to ask the instructor for additional information if the student does

not understand the assignments required in this course. In addition, sending emails to other students complaining or inquiring about grades is not appropriate behavior. Understand that this factor is highly subjective and can reduce your overall course grade. In extreme cases, the instructor reserves the right to drop students from the class.

All students enrolled at the University will follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. See Student's Guide Handbook, Rules and Procedures, Code of Student Conduct at <http://www.tamu-commerce.edu/studentlife/guidebook67.pdf>

**ACADEMIC INTEGRITY:** Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabricating of information or citation, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.

In this course the need for collaboration is undeniable if you are to excel, even in cases of individual work. There is a fine line in this process. You are encouraged to seek the help and advice of others. However, you must do your own work. My personal policy, which will guide this course, is this: I trust you to behave honestly and ethically in all circumstances. Please ask me if you have questions about what is proper and what is not.

## **NONDISCRIMINATION STATEMENT**

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 <https://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/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.

## Tentative Course Schedule

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<b>Assignment</b>	<b>Topic</b>	<b>Date (Week of)</b>
Chapter 1	What is Statistics?	27-Aug
Chapter 2	Describing Data- Frequency Distribution and Graphic Presentation	3-Sep
Chapter 3	Describing Data: Numerical Measures	10-Sep
Chapter 4	Describing Data: Displaying and Exploring Data	17-Sep
<b>Exam 1</b>	<b>Chapter 1 – Chapter 4</b>	<b>Open at 8:00am on 22-Sept Closes at 11:59pm on 23-Sept</b>
Chapter 5	A Survey of Probability Concepts	24-Sep
Chapter 6	Discrete Probability Distributions	1-Oct
Chapter 7	The Normal Probability Distribution	8-Oct

<b>Exam 2</b>	<b>Chapter 5 – Chapter 7</b>	<b>Open at 8:00am on 13-Oct Closes at 11:59pm on 14-Oct</b>
Chapter 8	Sampling Methods and the Central Limit Theorem	15-Oct
Chapter 9	Estimation and Confidence Intervals	22-Oct
Chapter 10	One-Sample Tests of Hypothesis	29-Oct & 5-Nov
<b>Exam 3</b>	<b>Chapter 8 – Chapter 10</b>	<b>Open at 8:00am on 10-Nov Closes at 11:59pm on 11-Nov</b>
Chapter 11	Two-Sample Tests of Hypothesis	12-Nov
Chapter 13	Linear Regression and Correlation	19-Nov
Chapter 14	Multiple Regression and Correlation Analysis	26-Nov & 3-Dec
<b>Exam 4</b>	<b>Chapters 11,13, &amp;14</b>	<b>Open at 8:00am on 11-Dec Closes at 11:59pm on 12-Dec</b>