ECO 302.21E
Business and Econ Statistics
Fall 2018

Instructor: Dr. Lirong Liu
Meetings: W 1:30-4:10 at FRIS
Office Location: Commerce Main Campus BA 102F
Office Hours: By appointment
Office Phone: 903-886-5684
Email: Lirong.Liu@tamuc.edu

Preferred Form of Communication:
- The best way to contact me is by email. You need to put the course number 'ECO 302' in the subject. Missing the required subject can seriously delay the response time.
- You are responsible for coming to class regularly and checking your university email daily for announcement, update and other information regarding the course.
- If you miss class, consult the course schedule on the last page of the syllabus for materials covered on each class day. It is your responsibility to get the notes from someone in the class to catch up.

COURSE INFORMATION

Required Textbook(s):

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

Required Excel Training: It is mandatory for every student of this course to take the Excel training. You must complete this training to get your Final grade. Here is the link:
https://www.udemy.com/microsoft-excel-2013-from-beginner-to-advanced-and-beyond/

Course Description

This is 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 Objectives

By completing this course the student will learn to perform the following:

1) Calculate and apply measures of location and measures of dispersion.
2) Apply discrete and continuous probability distributions to various business problems.
3) Calculate confidence intervals and perform the test of hypothesis for a population parameter for a single mean and a proportion; understand the meaning of a null and an alternative hypothesis as well as the meaning of type I and type II error.
4) Compute and interpret the results of Correlation and Regression Analysis.
5) Be able to interpret regression results generated by a computer software.

GRADING

There will be four exams worth 100 points each and five homework assignments worth 25 points each. The lowest homework grade will be dropped. So there will be 500 points in total.

All exams will be in multiple choice questions format and given in class. Formulas and tables will be provided. **No makeup exams will be given unless for a university excused absence.** For an excused absence, the makeup exam will be given as a comprehensive final during the final exam week. This means you will need to take two exams during the final week: the regularly scheduled exam and the comprehensive makeup final. Only one makeup exam with excused absence is allowed per student.

Homework assignments are posted on D2L with deadlines. You should submit your answers directly to D2L. **No late assignment will be accepted.** No other format of submission (email or hardcopy) will be accepted.

Bonus opportunity: the first student that locates mistakes (including typos, calculation errors, etc) receives one bonus point added to the upcoming homework grade. Corrections are updated in announcement on D2L as they are reported.

Final grades in this course will be based on the following scale:

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

Note:
1. "Need" is not a factor in determining course grades, so please do not email or call me telling me how much you need to make a certain grade.
2. Grades are to be earned, not gifted. There will not be anything "extra" outside the exams and homework assignments that you can do to pass the course or get a certain grade in this course.

Hints for making a good grade in this course
1. Attend class regularly—come prepared, ask questions if you do not understand the material and/or assignments, stay alert and take good notes.
2. Practice, practice and practice. Practice is the key to learn the materials. Without solving the problems yourself, you will not be able to do it 'magically' during the exams.
3. Submit homework assignments on time. Remember you cannot turn in late assignment. There is zero tolerance on this policy.
4. Contact me as soon as you realize you are having problems in this course. Emailing me or come by my office after failing two or three

exams and/or when there are only a few days left in the semester will NOT help.

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.

Desktop Support

Browser	**Supported** Browser **Version(s)**	**Maintenance** Browser **Version(s)**
Microsoft ® Edge	Latest	N/A
Microsoft ® Internet Explorer ®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

Tablet and Mobile Support

Device	**Operating System**	Browser	**Supported** Browser **Version(s)**
Android™	Android 4.4+	Chrome	Latest
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

Device	Operating System	Browser	**Supported** Browser **Version(s)**
			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 http://www.java.com/en/download/manual.jsp

- 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/
  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.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement
- The best way to contact me is by email. You need to put the course number 'ECO 302' in the subject. Missing the required subject can seriously delay the response time.
- Please allow up to 24 hours during weekdays and 48 hours during weekend for me to reply. If you do not hear from me within that time frame, you can resend your email or call me at 903-886-5674 (leave a message if not answered).
- Please consult your syllabus and the course page in D2L to see if your questions/concerns are addressed before sending me an email.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Syllabus Change Policy
The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance in Webinar or through email.

University Specific Procedures
Student Conduct
All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See current 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

ADA Statement
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
Email: Rebecca.Tuerk@tamuc.edu

Website: Office of Student Disability Resources and Services
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

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 ((http://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 Schedule

Week 1 (8/27-8/31)	Syllabus; Chapter 1 What is Statistics?
	Chapter 2 Describing Data- Frequency Distribution and Graphic Presentation
Week 2 (9/3-9/7)	Chapter 3 Describing Data: Numerical Measures
	Chapter 4 Describing Data: Displaying and Exploring Data
9/10 (Sun), 8 PM	**Homework 1 (Chapters 1-4)**
Week 3 (9/10-9/14) **9/12**	**Exam I**

Week 4 (9/17-9/21)	Chapter 5 A Survey of Probability Concepts
Week 5 (9/24-9/28)	Chapter 5 continued.
Week 6 (10/1-10/5)	Chapter 6 Discrete Probability Distributions
Week 7 (10/8-10/12)	Chapter 7 The Normal Probability Distribution
10/14 (Sun), 8 PM	**Homework 2 (Chapters 5-7)**
Week 8 (10/15-10/19) **10/17**	**Exam II**

Week 9 (10/22-10/26)	Chapter 8 Sampling Methods and the Central Limit Theorem
Week 10 (10/29-11/2)	Chapter 9 Estimation and Confidence Intervals
Week 11 (11/5-11/9)	Chapter 10 One-Sample Tests of Hypothesis
11/11 (Sun), 8 PM	**Homework 3 (Chapters 8-10)**
Week 12 (11/12-11/16) **11/14**	**Exam III**

Week 13 (11/19-11/23)	Thanksgiving holiday
Week 14 (11/26-11/30)	Chapter 13 Linear Regression and Correlation
Week 15 (12/3-12/7)	Chapter 14 Multiple Regression and Correlation Analysis
12/9 (Sun), 8 PM	**Homework 4 (Chapters 11, 13-14)**
12/10 (Mon), 8 PM	**Homework 5 (Excel data analysis)**
Final (12/10-12/14) 12/12	**Exam IV**