



## BA 302.01E

### Business and Economic Statistics

Spring 2013

**Instructor:** Dr. Jennifer L. Flanagan, PhD  
College of Business and Technology, Business Admin. & MIS

**Office:** BA 320      **Phone:** 903-468-8695

**Website:** <http://faculty.tamuc.edu/jflanagan>

**Email:** [Jennifer.Flanagan@tamuc.edu](mailto:Jennifer.Flanagan@tamuc.edu)

*Emails answered within 24 hrs,  
not answered Fri 5pm-Mon 9am*

**Office Hours:** Monday/Tuesday/Thursday 9-11:15 am

\*Also available by appointment. Times are subject to change – please see my website for updated hours.

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#### Required Text/Materials

- Lind/Marchal/Wothen, Statistical Techniques in Business & Economics – Irwin, 15<sup>th</sup> edition
- Scientific Calculator

**Course Prerequisite:** Math 141, 175 or equivalent

**Course Classification:** Core Business Course

**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, analysis of variance, correlation and regression analysis.

**Course Objectives:** 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:

- How to calculate and apply measures of location and measures of dispersion.
- How to apply discrete and continuous probability distributions to various business problems.
- To understand the meaning of a null and an alternative hypothesis as well as the meaning of type I and type II error. Further, to perform test of hypothesis as well as calculate confidence interval for a population parameter for a single mean, including use of the t and the z test.
- Compute and interpret the results of Bivariate Regression and Correlation Analysis.
- Be able to interpret regression results generated by a computer software (you may use excel, minitab, or any other stat. program).

**Attendance Policy:** Although attendance is not a grade, students are expected to be present for all class meetings of any course for which they are enrolled. I will explain assignments, review, and answer questions in class, so it is in your best interest to be in class. There will be a sign in sheet for me to keep track of who is attending, so please make sure you sign in everyday. Remember, some assignments might only graded and accepted one day, so please watch the schedule and make sure YOU are in class! Per University Procedure 13.99.99.R0.01, effective September 1, 1996, students are responsible for learning about and complying with the attendance policy stated in the catalog, Student's Guidebook, and/or faculty syllabus. The student is responsible for providing the faculty member reason(s) for his/her absence. You will be allowed to make-up work for classes you miss only if your absence is excusable. Excusable absences are defined in the current University Catalog.

**Web-Enhanced Course:** This course is web-enhanced, which means that certain assignments will be required through eCollege. Many assignment details, schedule changes, and other important announcements will be posted online, so it is VITAL that you check your eCollege course several times during the week. Contact the instructor and/or technical support if you are not able to log onto eCollege the first week of classes. Students are required to complete designated assignments online. Unless otherwise indicated, assignments should be submitted in the DropBox in eCollege.

Please make sure that your email address is kept current in both eCollege and myLeo. When I need to contact you, I will use your myLeo email address (the email address provided on myLeo). If you do not know how to access your myLeo account, are having issues with your myLeo account, please get them resolved as soon as possible. Additionally, check your email regularly, especially before class (just in case it is canceled).

**First time eCollege users:** eCollege is generally very user friendly; however, should you have any questions or concerns about it, you may want to complete an eCollege orientation. You can access the online eCollege Orientation by clicking on the following link: <http://online.tamuc.org/>

**Technical Support:** If at any time you experience technical problems (e.g., you can't log in to the course, you can't see certain material, etc.) please contact the eCollege Help Desk, available 24 hours a day, seven days a week. The Help Desk can be reached by sending an email to [helpdesk@online.tamuc.org](mailto:helpdesk@online.tamuc.org) or by calling 1-866-656-5511. Additionally, you can click on the "Help" button located at the top of each page for more information.

**Classroom Demeanor:** All students are expected to be respectful, professional, courteous, and speak with intelligence. "All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." See Student's Guide Book. Please turn off all cells phones, make sure you are on time to class, and, if you have an issue that needs to be addressed during class, take care of it in the quietest way possible.

**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 132  
Phone (903) 886-5150 or (903) 886-5835  
Fax (903) 468-8148  
[StudentDisabilityServices@tamuc.edu](mailto:StudentDisabilityServices@tamuc.edu)

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**Grading Policy:**

<b>Online Exams (3)</b>	<b>25%</b>
<b>In Class Exams (3)</b>	<b>20%</b>
<b>Online Final</b>	<b>15%</b>
<b>In Class Final</b>	<b>15%</b>
<b>Homework</b>	<b>10%</b>
<b>Online Discussions</b>	<b>15%</b>
	<b>100%</b>

<b>%</b>	<b>Grade</b>
90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

*All % are rounded either up or down to the nearest whole %*

**Both types of tests are listed under the appropriate weeks.**

- **Online Exam** – I will post an exam in eCollege which you can print out and work on while the exam is open. You need to submit by the due date by logging back into the test and entering your answers.
- **In Class Exam** – You will take a short in class exam consisting of 10 – 20 or so questions.

**Homework:** Homework will be assigned and required to be turned in weekly. Homework should be submitted AS AN ATTACHMENT to the dropbox by 11 pm CST on the date indicated on the syllabus. Homework may be submitted in any Office program or you may scan and attach it – whatever is easiest for you. Homework answers will be posted in the Virtual Office after the due date. I will post homework answers in the virtual office. **LATE HOMEWORK WILL NOT BE ACCEPTED!**

**Online Discussions:** I expect you to participate in discussions. As designated on the schedule, students will be required to post discussions to topics posed online. Questions are to be answered fully and discussions are to be professional, courteous, intelligent, and well-thought-out. **Part of the online discussion grade is posting responses as requested in the discussion instructions. Points will be deducted if response requirements are**

**not met.** Any questions about the online discussions should be directed to the instructor. **LATE DISCUSSIONS WILL NOT BE ACCEPTED!**

### Discussion Grading Rubric

If 2 responses are required

Your Post – 70%

Your responses to others – 30%

If 3 responses are required

Your Post – 60%

Your responses to others – 20% each

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Keep in mind that failure to post at all will result in student not receiving any participation points. Plan to participate throughout the semester. It is the responsibility of each student to keep up with the scheduled readings and discussions for the chapters. In order to achieve the highest possible score for discussion participation, students should post more than the minimum replies to show active engagement in the discussion. Grades awarded for each chapter reflect an average of the three components (i.e., participation, timeliness, and content/subject knowledge/critical thinking). It is critical that students read ALL the postings for each topic. This will ensure that you not only respond to the topic questions but to your colleagues' comments as well. Also, it will help in ensuring against anyone plagiarizing your work.

#### IMPORTANT POSTING RULES:

- 1) Postings may be a few sentences or a couple of paragraphs in length. The key to a quality post is that it provides clear analysis and insight into the topic or questions. Your postings will be carefully read.
- 2) Note that long-winded postings are not necessary. The idea is for quality rather than quantity.
- 3) Plagiarism among students (copying others' postings) will **NOT** be tolerated. Please note that TAMU-C has explicit rules regarding plagiarism and will be subject to penalties. Students are advised to carefully read everyone's postings to ensure that no one has plagiarized your answer.
- 4) Students with very FEW or NO SUBSTANTIVE postings will not receive the highest credit.
- 5) Proof your postings and eliminate any offensive references, poor sentence syntax, misspelled words, etc. Keep errors to a minimum.

## Class Schedule

<b>Week</b>		<b>Topic/Assignments</b>
Week 1	1/14	Review Syllabus/Course Expectations
	1/16	Chapter 1/Chapter 2
	1/18	<b>NO CLASS</b> (Dr. Flanagan has a class to attend) **online discussion 1 due Sunday, 11 pm CST <b>AND</b> post to student lounge
<i>This is the time to get acclimated with eCollege, take a look at the links and layout of the class, etc. DON'T wait until the last minute to take a look at the course!</i>		
Week 2	1/21	<b>NO CLASS – MLK HOLIDAY</b>
	1/23	<b>NO CLASS</b> (Dr. Flanagan has a class to attend)
	1/25	Chapter 3 **Turn in Chapters 1-3 Homework (dropbox) by Sunday, 11 pm CST
<i>Please turn in each chapter to its own dropbox!! Remember, homework needs to be attached in a word, pdf, excel, or some other Microsoft-compatible program.</i>		
Week 3	1/28	Chapter 4
	1/30	Chapter 5
	2/1	<b>NO CLASS</b> – online discussion 2 due Sunday, 11 pm CST **Turn in Chapter 4 Homework (dropbox) by Sunday, 11 pm CST
Week 4	2/4	Chapter 5/Review for test **Turn in Chapter 5 Homework (dropbox) by Monday, 11 pm CST
	2/6	<b>NO CLASS Online Home Exam 1 Chp 1-5 (open 2/5 – 2/10, due 2/10, 8 pm)</b>
	2/8	<b>NO CLASS Online Home Exam 1 Chp 1-5</b>
Week 5	2/11	<b>Take In-Class Exam 1 Chp 1-5</b>
	2/13	<b>NO CLASS</b> (Dr. Flanagan has a class to attend)
	2/15	<b>NO CLASS</b> – online discussion 3 due Sunday, 11 pm CST
Week 6	2/18	Chapter 6
	2/20	Chapter 7
	2/22	<b>NO CLASS</b> – online discussion 4 due Sunday, 11 pm CST **Turn in Chapters 6 & 7 Homework (dropbox) by Sunday, 11 pm CST
Week 7	2/25	Chapter 8
	2/27	Chapter 8/Review for test **Turn in Chapter 8 Homework (dropbox) by Wednesday, 11 pm CST
	3/1	<b>NO CLASS Online Exam 2 Chp 6-8 (open 2/28-3/5, due 3/5, 8 pm)</b>
Week 8	3/4	<b>NO CLASS Online Exam 2 Chp 6-8</b>
	3/6	<b>Take In-Class Exam 2 Chp 6-8</b>
	3/8	<b>NO CLASS</b> – online discussion 5 due Sunday, 11 pm CST

**SPRING BREAK**

3/11 – 3/15

**ENJOY!!**

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Week 9	3/18	Chapter 10
	3/20	<b>NO CLASS</b> (Dr. Flanagan has a class to attend)
	3/22	<b>NO CLASS</b> – online discussion 6 due Sunday, 11 pm CST <b>**Turn in Chapter 10 Homework (dropbox) by Sunday, 11 pm CST</b>

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Week 10	3/25	Chapter 10/11
	3/27	Chapter 11/12
	3/29	<b>NO CLASS</b> – online discussion 7 due Sunday, 11 pm CS <b>**Turn in Chapter 11 Homework (dropbox) by Sunday, 11 pm</b>

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Week 11	4/1	Chapter 12/Review for Test
	4/3	<b>NO CLASS Online Exam 3 Chp 9-12 (open 4/2-4/7, due 4/7, 8 pm)</b>
	4/5	<b>NO CLASS Online Exam 3 Chp 9-12</b>

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Week 12	4/8	<b>Take In-Class Exam 3 Chp 9-12</b>
	4/10	Chapter 13
	4/12	<b>NO CLASS</b> – online discussion 8 due Sunday, 11 pm CST <b>**Turn in Chapter 12 Homework (dropbox) by Sunday, 11 pm</b>

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Week 13	4/15	Chapter 13
	4/17	<b>NO CLASS</b> (Dr. Flanagan has a class to attend)
	4/19	<b>NO CLASS</b> – online discussion 9 due Sunday, 11 pm CST <b>**Turn in Chapter 13 Homework (dropbox) by Sunday, 11 pm CST</b>

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Week 14	4/22	Chapter 14
	4/24	Chapter 14/Review for Final
	4/26	<b>NO CLASS</b> – online discussion 10 due Sunday, 11 pm CST <b>**Turn in Chapter 14 Homework (dropbox) by Sunday, 11 pm CST</b>

**\*\*If you have an average of 90% by 4/24 by 8 am, you are exempt from the IN CLASS Final. This does NOT mean you are guaranteed an A in the course – your grade will still be based on your performance on the online final and other assignments due after 4/24.**

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Week 15	4/29 – 5/3	<b>NO CLASS THIS WEEK – Online Final Chp 4 – 14 (open 4/29 – 5/3 – due 5/3, 8 pm)</b>
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Week 16	5/6-5/10	<b>FINALS WEEK (Time/day TBA) ** TBA - In Class Final (Chapters 5, 7, 9, 10, 11, 12, 13, 14)</b>
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## COURSE NUMBER & TITLE: BA302 Business and Economics Statistics

Criteria (Course Objectives)	1 (Unsatisfactory)	2 (Emerging)	3 (Proficient)	4 (Exemplary)
1. How to calculate and apply measures of location and measures of dispersion.	Student cannot calculate and apply any measures of location and measures of dispersion.	Student can calculate and apply some of the measures of location and measures of dispersion.	Student can calculate and apply most of the measures of location and measures of dispersion.	Student can calculate and apply all of the measures of location and measures of dispersion.
2. How to apply discrete and continuous probability distributions to various business problems.	Student cannot apply discrete and continuous probability distributions to any problems.	Student can apply of discrete and continuous probability distributions to some problems.	Student can apply of discrete and continuous probability distributions to most of the problems.	Student can apply discrete and continuous probability distributions to all the problems.
3. Understand the Hypothesis Testing: 3.1 Understand the meaning of a null and an alternative hypothesis 3.2 Understand the meaning of type I and type II error. 3.3 Be able to perform test of hypothesis 3.4 Be able to calculate confidence interval for a population parameter for a single mean, including use of the t and the z test.	3.1 Student doesn't understand the meaning of a null and an alternative hypothesis 3.2 Student doesn't understand the meaning of type I and type II error. 3.3 Student cannot perform test of hypothesis 3.4 Student cannot calculate confidence interval for a population parameter for a single mean, including use of the t and the z test	3.1 Student understands the meaning of a null and an alternative hypothesis or 3.2 Student understands the meaning of type I and type II error. 3.3 Student is able to perform some test of hypothesis or 3.4 Student is able to calculate confidence interval for a population parameter for a single mean, including use of the t and the z test (2 out of 4)	3.1 Student understands the meaning of a null and an alternative hypothesis or 3.2 Student understands the meaning of type I and type II error. 3.3 Student is able to perform some test of hypothesis or 3.4 Student is able to calculate confidence interval for a population parameter for a single mean, including use of the t and the z test (3 out of 4)	3.1 Student understands the meaning of a null and an alternative hypothesis and 3.2 Student understands the meaning of type I and type II error. and 3.3 Student is able to perform some test of hypothesis and 3.4 Student is able to calculate confidence interval for a population parameter for a single mean, including use of the t and the z test
3 Compute and interpret the results of Bivariate Regression and Correlation Analysis.	Student cannot compute and interpret the results of Bivariate Regression and Correlation Analysis.	Student can compute and interpret some of the results of Bivariate Regression and Correlation Analysis.	Student can compute and interpret most of the results of Bivariate Regression and Correlation Analysis.	Student can compute and interpret all of the results of Bivariate Regression and Correlation Analysis.
4 Be able to interpret regression results generated by computer software.	Student cannot interpret regression results generated by a computer software	Student can fairly interpret regression results generated by a computer software	Student can interpret regression results generated by a computer software well	Student can interpret regression results generated by a computer software excellently