



**Business and Economic Statistics**  
**The weekly schedule for this course is Sunday through Monday.**

Instructor: Rhonda Arnwine  
Phone: 972-768-1696 (No texting please.)  
Email: [rarnwine@leomail.tamuc.edu](mailto:rarnwine@leomail.tamuc.edu)  
Office Hours: My appointment

### **Course Description**

This course deals 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.

### **Required Text**

Lind/Marchal/Wathen, Statistical Techniques in Business & Economics – McGrawHill Irwin, 14<sup>th</sup>

### **Course Prerequisite**

**Math 141, 175 or equivalent. These courses are the math basics that this course will build upon. This is very important. Skipping the prerequisites may make this course more difficult for you.**

**Technology Requirements:** A basic calculator is needed for this course. The calculator should have the following keys: factorial (!), square root ( $\sqrt{x}$ ),  $x^2$ ,  $y^x$ . These basic calculators general cost \$1 to \$30, *cell phones, smart phones, ipads, etc. may not be used during an exam.*

### **Course Objectives**

The objective of this course is to provide a foundation for the graduate business student on basic principles of statistics to include measurements of location and dispersion, probability, probability distributions, sampling, estimation, hypothesis testing, regression and correlation analysis, and regression.

1. The student will know the definition of inferential statistics. (Chapter 1)
2. The student will be able to identify the measures of central tendency. (Chapter 3)
3. The student will know the definition of standard deviation. (Chapter 3)
4. The student will be able to use the binomial distribution tables to solve a problem. (Chapter 6)
5. The student will be able to use the poison distribution table to solve a problem. (Chapter 6)
6. The student will be able to use the normal distribution table to solve a problem. (Chapter 7 & 8)
7. The student will know the definition of a sampling distribution of means. Chapter 8)

8. The student will know the central limit theorem. (Chapter 8)
9. The student will be able to calculate a confidence interval for a population parameter. (Chapter 9)
10. The student will know the definition of a Type I and a Type II error. (Chapter 10)
11. The student will be able to test a statistical hypothesis. (Chapter 10)
12. The student will know the definition of correlation. (Chapter 13)
13. The student will know how to calculate a correlation coefficient. (Chapter 13)
14. The student will know how to calculate a regression equation. (Chapter 13)

**Communication:** Email communication for this course is sent to your Leo mail (university email system account). To ensure the message is received, the subject line for each e-mail should read BA 302.

**!!!No Text Please!!!**

**Attendance:** This class meets face-to-face every week Monday beginning August 27, 2012 through December 3, 2012. Attendance means that you participate in the weekly discussions, assignments and exams. Attendance is imperative for success in this course.

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.

**Classroom Demeanor:** "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.

When participating in class discussions and teams, students are encouraged to share their understanding of subject matter and may possess varying interpretation and experience(s) of the topic. For this forum to remain an open arena for students to share their point of view on the topic(s) and to learn from each person's experience please refrain from directing comments at a person, rather simply share your point of view.

**Academic Honesty:** Information found on the internet is not free to use as one pleases. The "cut and paste" option makes it quite tempting. Do not be tempted. Information on the web must be properly cited, just as you would cite any hard copy periodical. Please keep the following in mind.

1. Unless there is a compelling reason, **do not quote anything verbatim in your work**. If you find it necessary to use a particular phrase or sentence that illustrates a point well, you must place quotes around the text and properly cite the statement. Failure to place quotes around the statement and provide proper citation, leads the reader to believe that this is your original work and this is plagiarism.
2. **Your work should be original** or a summary of the sources researched. Simply rearranging the words or making minor changes in the wording (i.e. adding the word very in front of the interesting) does not make it your original writing and is not the best use of your resources.

3. Every idea you get from another source must be cited. Placing 100 citations in a paper does not imply that the work is not original, but that you did a proper job of giving credit where it is due. This does not make for a good original paper.
4. The real danger in the cut and paste approach is that you end up including a lot of information that is related to the topic, however do not address the question(s) you are trying to answer or fulfill the need for what you are trying to state. Putting things into your own words allows you to develop your skills and communicate more effectively on a given topic.
5. Any deviation from the guidelines concerning quotes and citations constitutes plagiarism, as it suggests that you are trying to submit someone else's work and creativity as your own. If you have any questions regarding the use of resources, please contact me.

**Plagiarism:** Plagiarism and other forms of academic dishonesty will not be tolerated. Instructors are expected to uphold and support student integrity and honesty by maintaining conditions that encourage and enforce academic honesty. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own, cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuses (destruction, defacing, or removal) of resource material." See 13.99.99.R0.10 Academic Honesty at [http://www.tamu-commerce.edu/administration/Rules%26Procedures/rules\\_procedures.asp?RID=97](http://www.tamu-commerce.edu/administration/Rules%26Procedures/rules_procedures.asp?RID=97)

Some seem to believe that anything found on the Internet is free to use as they please. The "cut and paste" option also makes it easy to plagiarize. However, information on the web must be properly cited just as you would any "hard copy" periodicals. In this course, APA style citation is expected. Any written assignments must include in text citations, as well as a separate reference page. To avoid plagiarism and individual must give credit wherever he or she uses:

- another individual's idea, opinion, or theory
- facts, statistics, graphs, and drawings that are not common knowledge
- quotations of another individual's spoken or written words
- paraphrase another individual's spoken or written words

Any deviation from the guidelines concerning quotes and citations constitutes plagiarism, as it suggests that you are trying to submit someone else's work and creativity as your own. In accordance with the Texas A&M University-Commerce Code of Student Conduct Section 5.b [1, 2, 3], the penalties for students guilty of academic dishonesty include disciplinary probation, suspension, and expulsion. If you have any questions, please let me know. Anyone caught plagiarizing will receive an "F" for the course and will be referred to the Dean of the College of Business and Technology and/or the Dean of Students.

**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@tamu-commerce.edu

### Statement of Ethical and Professional Conduct

The college of Business and Technology at Texas A&M University-Commerce faculty, staff and students will follow the highest level of ethical and professional behavior. We will strive to be recognized as a community with legal, ethical and moral principals and to teach and practice e professionalism in all that we do.

In an academic environment we will endeavor to not only teach these values but also to live them in our daily lives and work. Faculty and staff will be held to the same standards and expectations as our students.

Failures to abide by these principles will result in sanctions up to and including dismissal.

### NOTE THE FOLLOWING

1. The assignments listed are tentative for the semester. It is meant to be a guide. Certain topics may be stressed more or less than indicated in the text and, depending on class progress, certain topics may be omitted.
2. ***Missed examination: A missed examination may be made-up during the week of the final exam. This make-up exam will be comprehensive.***

### Grading Policy

Evaluation of student performance will be based primarily upon four equally weighted exams (total of 400 points) and section assignments, including the course quiz in Week 1 (total of 200 points). For most students, the final exam will cover the last section of material covered in this course. If a student has missed an exam, this student will also take a comprehensive final exam. Grades for the course will be determined by achieving the following average ranges:

Average Range	Grade
90 – 100	A
80-89	B
70—79	C
60-69	D
Below 60	F

*Unless an error was made in grading, please do not ask for your grade to be changed from the points you earned. Your final grade is the true reflection of your work throughout the entire semester, as well as mastery of course content. Extra credit work is not available.*

### Exams

The exams are a combination of mathematical calculations, fill-in-the-blank and multiple choice responses. You should prepare for this exam as if it were to be taken in the classroom setting. The University's Academic Honesty policy should be followed while taking exams and submitting work for all courses.

---

Exams will be available on the first day of the week (Sunday) and will close at 11:59 p.m. on the last day of the week (Saturday), as listed in the schedule below. This means you must complete the exam by 11:59 p.m. on Saturday of the scheduled week. The exams **are timed and can only be accessed once**; therefore, once you begin, you may not stop and come back to it later, *for any reason*.

If you lose internet connectivity during the exam, log back in immediately and continue on with the exam, you must contact the eCollege Helpdesk immediately so that your issue is documented with a helpdesk ticket number. Considerations regarding exam issues will be made by the instructor on an individual basis, **based on the Helpdesk documentation**.

Grades will be posted within one week following each exam.

**NO MAKE-UP EXAMS! IF YOU MISS A SCHEDULED EXAM, YOU WILL BE GIVEN A COMPREHENSIVE EXAM AT THE END OF THE SEMESTER, ALONG WITH THE FINAL EXAM!**

### **Final Exam**

The final exam schedule will be different from the other semester exams. Please refer to the schedule at the end of the syllabus.

### **Section Assignments**

Section assignments are intended to assist you in preparing for the exams. Section Assignments *are not* intended to cover all information included on the exam. Section Assignments are **due by 11:59 p.m. on Saturday of the scheduled week. *Late work is not accepted.***

**Class Schedule**

**The weekly schedule for this course is Sunday through Monday.  
All work, including exams, is due by 11:59 p.m. on Saturday of the week listed.**

<b>Date</b>	<b>Chapter</b>	<b>Topic</b>
8/27	Chapter 1 Chapter 2	Course Quiz What is Statistics? Describing Data – Frequency Distribution and Graphic Presentation
9/2	Chapter 3	Describing Data Measures of Central Tendency
9/9	Chapter 4 Section Assignment Due	Other Descriptive Measures
9/16	<b>TEST 1</b>	
9/23	Chapter 5	A Survey of Probability
9/30	Chapter 6	Discrete Probability Distributions
10/7	Chapter 6 Chapter 7 Section Assignment Due	Discrete Probability Distributions The Normal Probability Distribution
10/14	<b>TEST 2</b>	
10/21	Chapter 8	Sampling Methods and the Central Limit Theorem
10/28	Chapter 9	Estimation and Confidence Interval
11/4	Chapter 10 Section Assignment Due	One Sample Test of Hypothesis
11/11	<b>TEST 3</b>	
11/18	Chapter 11	Two Sample Tests of Hypothesis
11/25	Chapter 13	Linear Regression and Correlation
12/2	Chapter 14 Section Assignment Due	Multiple Regression and Correlation Analysis
12/5 – 12/12	<b>TEST 4 FINAL EXAM</b>	

**Reminders: Late work is not accepted. A missed exam will result in a comprehensive exam, taken the last week of the semester, along with the final exam.**