

STA 309 Elementary Business Statistics (04375)

Instructor: Ying He

Class Time: MWF 2:00-3:00pm

Classroom: UTC 4.122

Office: CBA 5.334 C

Office Hours: MW 3:00-5:00pm

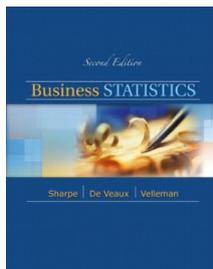
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Course Objective:

Statistics is the science of data. This class is the introductory course in statistics. It will provide you the fundamental training in the use of data to gain insight into business problems. Throughout this class, we will learn the science of describing data (distributions, relationships, and regression); collecting data (experiments, sample design, and sampling distribution); and interpreting data (probability, inference and hypothesis testing).

This course concentrates on the practice of statistics as a tool for learning about the real world. Upon completion of the course you should be able to think critically about data, use graphical and numerical summaries, apply standard statistical inference procedures, and draw conclusions from such analyses.

Textbook:



[Business Statistics](#) (2nd Edition), by Norean D. Sharpe, Richard D. De Veaux, and Paul Velleman; Addison Wesley, January 6, 2011, ISBN-10: 0321716094, ISBN-13: 978-0321716095. The textbook is required.

Webpage: <https://courses.utexas.edu/>

This course will use a password-protected class web site. Syllabi, notes, assignments, and other resources will be available within this site. Login to the course website using your UT EID. You should be able to use the website on computers running Windows, Internet Explorer, Excel and the Adobe Acrobat Reader. If you have difficulty, you may be able to get help from the ACITS Help Desk (475-9400). Alternatively, you may need to work in the CBA labs.

Grading:

Class participation 5%

Homework 10%

Applied Finance Assignments 10%

Test 1 25%

Test 2 25%

Test 3 25%

The grade on one test may be replaced with your Test 3 grade.

Homework:

Statistics is a cumulative subject that requires frequent practice. If one topic is confusing, the next is likely to be more so. To address this, it is necessary for you to practice statistics on a frequent basis. The homework assignments are designed to keep you current in the course. The assignments are available online on the course web page. It is recommended that students work on assignments independently.

Working the assigned problems is not sufficient to guarantee an A in the course. Your proficiency with statistics will improve with active practice; i.e., working problems and explaining your results. The textbook has many problems per chapter for additional practice. Answers to all odd numbered problems are given in the back of the textbook.

Tests:

Tests for this class will be given in the Mod Lab (CBA 5.325) either in the afternoon/evening. You will access the test through Blackboard and have Excel available. You may bring a calculator to the tests. You may bring one 8.5" by 11" page (both sides) of notes to the first test, two pages to the second test, and three pages to the third test. Necessary distributional tables will be handed out; no formulas will be provided. You must bring a picture ID to each test. The third test will be cumulative.

There will be no make-up tests. Your third test will be cumulative and the grade can replace one lower test grade. You must inform the instructor in advance if you are going to miss a test due to observance of a religious holiday or an official university activity.

Applied Finance Assignments:

There will be three applied finance assignments to be completed for this class. The assignments are examples of real problems from the field of finance. The assignments are designed to give you practical experience analyzing real-world data that you will obtain yourself. You will apply statistical concepts that you learn in this class. Applied Finance Assignments are due by midnight on their due date. The first (1) is worth 4% of your grade, the second (2a) is worth 4%, and the third (2b) is worth 2%, for a total of 10% of your grade.

Computing:

The practice of statistics requires a fair amount of numerical calculations. We will use Microsoft Excel 2010 and StatTools (included in Pallisade Decision Tools 5.7) for statistical computations and graphics. StatTools is available in McCombs computer labs or you can download it from <https://www.mcombs.utexas.edu/services/cbacc/coe/#DecisionTools>

It is also useful to have a calculator that does two-variable statistics, that is, which calculates not only mean and standard deviation, but also the correlation and the least-squares regression line from keyed-in data. Two-variable calculators are available for \$25 or less. A graphing calculator is not required for this course.

The McCombs School of Business has 2 computer labs with Dell computers: CBA 5.304/5.325(MOD Lab) and CBA 5.322(Millennium Lab). [Lab hours](#) are extensive both in the CBA labs and the [Student Microcomputing Facility](#) (SMF). You must have an [ITS](#) computer account to use the labs. The datasets to individual homework assignments are available as you work.

Getting Help

Your professor and TA are eager to help you during office hours or by appointment. If you prefer a private tutor, the [UT Learning Center](#) (phone 471-1217) in Jester A115 can arrange one for you for a reasonable charge. The UT Learning Center also has specific statistics resources including a copy of the video tape series, *Against All Odds: Inside Statistics*, to help you with material in this class.

Scholastic Dishonesty:

The [McCombs School of Business](#) has no tolerance for acts of scholastic dishonesty. The responsibilities of both students and faculty with regard to scholastic dishonesty are described in detail in the Policy Statement on Scholastic Dishonesty for the McCombs School of Business.

By teaching this course, I have agreed to observe all of the faculty responsibilities described in that document. By enrolling in this class, you have agreed to observe all of the student responsibilities described in that document. If the application of that Policy Statement to this class and its assignments is unclear in any way, it is your responsibility to ask me for clarification. Policy on Scholastic Dishonesty: Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. You should refer to the [Student Judicial Services](#) website or the [General Information Catalog](#) to access the official University policies and procedures on scholastic dishonesty as well as further elaboration on what constitutes scholastic dishonesty.

Scholastic dishonesty in this course includes copying or collaborating during an exam, discussing or divulging the contents of an exam with another student who will take the test, and use of homework solutions from another student or semester.

Students with Disability

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. This includes students with ADHD and learning disabilities. For more information, contact the [Office of the Dean of Students](#) at 471-6259, 471-4641 TTY.

Religious Holy Days

By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

Campus Safety

Please note the following recommendations regarding emergency evacuation from the Office of Campus Safety and Security, 512-471-5767, <http://www.utexas.edu/safety/>

Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside. Familiarize yourself with all exit doors of each classroom and building you may occupy. Remember that the nearest exit door may not be the one you used when entering the building. Students requiring

assistance in evacuation should inform their instructor in writing during the first week of class. In the event of an evacuation, follow the instruction of faculty or class instructors.

Do not re-enter a building unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services office.

Behavior Concerns Advice Line (BCAL): 512-232-5050

Further information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency

Tentative Schedule

Topic and Lecture Date ¹	Textbook	Assignment Due Date ²
Introduction 8/29	Chapter 1	
Data, Surveys, and Sampling 8/31, 9/5 No class on (Labor Day) 9/3 Displaying and Describing Categorical Data 9/7	Chapters 2, 3, and 4	HW1 Sep 9
Displaying and Describing Distribution Quantitative Data 9/10, 9/12, 9/14	Chapter 5	HW2 Sep 16
Correlation and Linear Regression 9/17, 9/19, 9/21	Chapter 6	HW3 Sep 23
Review 9/24 Test 1 (MOD lab) 9/26		
Finance Assignment #1		Oct 1
Probability and Randomness 9/28, 10/1, 10/3	Chapter 7	HW4 Oct 7
Random Variables and Probability Models 10/5, 10/8, 10/10	Chapter 8	HW5 Oct 14
Video session: (watching video online) No class 10/15		
Normal Distribution 10/12, 10/17, 10/19	Chapter 9	
Sampling Distribution 10/22, 10/24, 10/26	Chapter 10	HW6 Oct 28
Review 10/29 Test 2 (MOD Lab) 10/31		
Finance Assignment #2a		Nov 5
Confidence Intervals for Proportions 11/2, 11/5	Chapter 11	

Confidence Intervals for Means	11/7,11/9	Chapter 12	HW7 Nov 12
Hypotheses Test	11/12, 11/14, 11/16, 11/19	Chapter 13	HW8 Nov 21
Comparing Two Groups	11/21, 11/26, 11/28	Chapter 14	
Inference for Counts	11/30, 12/3	Chapter15	HW9 Dec 4
Review	12/5		
Test 3 (MOD Lab)	12/7		
Finance Assignment #2b			Dec 10

1. Lecture dates may vary slightly through the semester.
2. Assignments are due at the end of the due date.