

COURSE NAME AND NUMBER: BSTAT 3321 Business Statistics I, Summer 2011

TIME & PLACE OF CLASS MEETINGS: Tuesday & Thursday 5:30PM - 7:50PM, COBA 147

INSTRUCTOR: Hui-chuan Chen

OFFICE: 504B

PHONE: 817-272-3562

OFFICE HOURS: 4:30-5:20 Tuesday and Thursday or by appointment

E-MAIL: hui-chuan.chen@mavs.uta.edu

WEBSITE: <https://mavspace.uta.edu/people/h/hx/hxc0885/index.htm>

Course Description

This course presents the application of statistical techniques to business and economic data. Topics include descriptive statistics, probability distributions, estimation, inference, regression, correlation, and time series. Prerequisite: INSY 2303 and MATH 1315.

Required Textbooks and Other Course Materials: Students who KNOW they will take BSTAT3322, should buy the full 6th edition of the Levine text *Statistics for Managers: Using Microsoft® Excel*, ISBN-13: 978-0-13-703522-9, ISBN-10 0-13-703522-5 by Levine, Stephan, Krehbiel and Berenson **OR**

All other students should buy the custom text created for UTA (to save you money) with just selected chapters from the full text. *Statistics for Managers* ISBN-13: 978-0-558-66795-5, ISBN-10 0-558-66795-3 *Material is taken from Statistics for Managers: Using Microsoft® Excel, by Levine, Stephan, Krehbiel and Berenson & Statistics for Business: Decision Making and Analysis by Stine and Foster*

Required Software: Microsoft Excel

LEARNING OUTCOMES

- The student will be able to explain the rationale for randomness in data collection, select a simple random sample and describe a data set verbally, graphically, and numerically.
- The student will be able to apply the complement, addition, and multiplication laws of probability.
- The student will be able to distinguish between discrete and continuous random variables, find binomial and normal probabilities using tables, and compute expected value and variance for a binomial distribution.
- The student will be able to state the Central Limit Theorem and use the sampling distributions to find probabilities for the sample mean and sample proportion.
- The student will be able to construct and interpret confidence intervals for a population mean and a population proportion and to determine sample sizes for given levels of confidence and margins of error.

- The student will be able to test hypotheses about a population mean and a population proportion and to interpret the results.
- The student will be able to fit and interpret simple linear regression models along with the usual inferences.

<u>REQUIRED TEST/ASSIGNMENT</u>		<u>GRADES</u>
Test 1	20%	A = 90 and above
Test 2	20%	B = 80 - 89
Homework	20%	C = 70 - 79
Pop Quizzes over HW & Attendance	10%	D = 60 - 69
Comprehensive Final	30%	F = 0 - 59

TESTS: All tests will be closed book with the exception of the tables in the back, if needed on that test. In addition, one single, two-sided study sheet (8 1/2 by 11 inches) will be allowed for each exam. You may include anything on the study sheet you wish. I would suggest that you prepare this sheet before you start studying for test to make sure you do not forget to include a critical formula. Calculators will be allowed for each test but laptop computers will not be allowed.

HOMEWORK, ATTENDANCE, PARTICIPATION, AND DROP POLICY: Suggested homework problems from the textbook are assigned for every chapter. If you wish to make a reasonable grade in this course, you must learn to work this type of suggested problems. The class exams are heavily based on these questions. Attendance, working assigned problems, the number of hours you study are the primary factors that determine your grade in this course. Reference the Undergraduate Catalog in effect at the start of the semester for the official drop policy and any other policies which affect your successful completion of this course.

EMAIL: All email to me must be sent from your UTA email address. Emails sent from any other account might be caught by the spam filter and never reach me. Additionally, I will send emails only to your UTA account.

THE INSTRUCTOR RESERVES THE RIGHT TO ASK STUDENTS TO TURN OFF ANY ELECTRONIC DEVICES INCLUDING CELL PHONES, SMART PHONES, LAPTOPS, NETBOOKS, ETC AT ANY TIME DURING THIS COURSE.

Absences based on Religious Beliefs:

A student who misses an examination, work assignment, or other project due to the observance of a religious holy day will be given the opportunity to complete the work missed within 15 days following the due date of the assignment, test, or other project missed. To be eligible for such a make-up, the student must notify me in writing of classes scheduled on dates he or she will be absent to observe a religious holy day. Notification must be made within the first 15 (fifteen) class days through either a written correspondence, personal delivered, acknowledged and dated by me or written correspondence sent certified mail, return receipt requested to me. Failure to follow the rules provided above within the time frames listed will result in the absence being considered unexcused.

Class Schedule

Week	Topic	Module	Text	Practice Problems	Homework
6/7	Why Study Statistics?	Module 1: Why Study Statistics?	Chapter 1		
6/9	Visualizing Data	Module 2: Graphical Descriptive Statistics	Sections 2 – 2.5	2.20, 2.26, 2.28, 2.46, 2.48, 2.50, 2.59, 2.64, 2.66	H1 Assigned
6/14 6/16	Numerical Descriptive Statistics	Module 3: Numerical Descriptive Statistics	Chapter 3	3.2, 3.12, 3.14, 3.38, 3.30, 3.40, 3.41, 3.42	H2 Assigned
6/21	Exam I	Covers Modules 1 – 3 Probability is not included			
6/23	Probability	Module 4: Probability	Chapter 4	4.4, 4.8, 4.12, 4.14, 4.16, 4.22, 4.24, 4.32, 4.34	H3 Assigned
6/28	Discrete Probability Distributions	Module 5: Discrete Probability Distributions	Sections 5.1—5.3	5.2, 5.4, 5.6, 5.18, 5.20, 5.22, 5.26	H4 Assigned
6/30	Normal Distribution	Module 6: The Normal Distribution	Sections 6.1—6.3	6.2, 6.6, 6.8, 6.10, 6.12, 6.16, 6.22	H5 Assigned
7/5 7/7	Sampling Distributions	Module 7: Sampling Distributions	Chapter 7	7.8, 7.16, 7.22, 7.26	H6 Assigned
7/12	Exam II	Covers Modules 4-7 Probability is not included			
7/14	Estimation	Module 8: Estimation	Chapter 8	8.2, 8.8, 8.10	H7 Assigned
7/19 7/21	Hypothesis Testing	Module 9: Hypothesis Testing	Chapter 9	8.2, 8.6, 8.10, 8.12, 8.16, 8.20, 8.24, 8.50, 8.54	H8 Assigned
		*** Last Day to Drop Classes is July 21 ***			
7/26 7/28	Simple Linear Regression	Module 10: Simple Linear Regression	Chapter 13	13.1, 13.2, 13.8, 13.6, 13.36	
8/2	Final Exam: Comprehensive 5:30 – 7:50 p.m.				

Schedule is subject to change. It is your responsibility to be aware of schedule changes. Be sure to check my website for any announcements of schedule changes or if you miss class. Note that the week scheduled for guest speakers may change due to speakers' schedules.

Drop Policy: Refer to the university drop policy as posted on the university website, www.uta.edu.

AMERICANS WITH DISABILITIES ACT (ADA): The University of Texas at Arlington is on record as being committed to both the spirit and letter of the ADA to make reasonable adjustments in the classroom necessary to eliminate discrimination on the basis of disability. Students should meet with the Instructor during the first week of class to discuss their special needs and advise the instructor of any special needs, abilities or limitations and to discuss the instructor's expectations in class participation, performance and work standards. Any disclosure by the students of their need for accommodations is recognized to be extremely sensitive and all conversations and other communications will be kept protected and confidential and disclosed on a need-to-know basis only.

Students are responsible for contacting and consulting with the University's **Office for Students with Disabilities** prior to contacting the instructor about any disabilities. The student should provide the instructor with some form of written documentation of the disability from an acceptable, external sources (such as a doctor, psychiatrist, etc.) and from the **Office for Students with Disabilities**.

ABSENCES BASED ON RELIGIOUS BELIEFS: A student who misses an examination, work assignment, or other assignment due to the observance of a religious holy day will be given the opportunity to complete the work missed within 15 days following the due date of the assignment, test, or other assignment missed. To be eligible for such a make-up, the student must notify me in writing of classes scheduled on dates he or she will be absent to observe a religious holy day. Notification must be made within the first 15 (fifteen) class days through either a written correspondence, personal delivered, acknowledged and dated by me or written correspondence sent certified mail, return receipt requested to me. Failure to follow the rules provided above within the time frames listed will result in the absence being considered unexcused.

STUDENT SUPPORT SERVICES: The University supports a variety of student success programs to help you connect with the University and achieve academic success. They include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

BOMB THREATS: If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations/tests caused by bomb threats. Unannounced alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available.

Evacuation Procedures

In the event of an evacuation of the College of Business building, when the fire alarm sounds, everyone must leave the building by the stairs. With the fire alarm system we now have, the elevators will all go to the first floor and stay there until the system is turned off.

All those in the North tower side of the building should proceed to the fire escape stairs located on the East and West sides of that wing.

FOR DISABLED PERSONS.....please go to the Northeast fire stairs. We have an evacu track chair located on the 6th floor stairwell. We have people trained in the use of this chair and there will be someone that will go to the 6th floor to get the chair and bring it to any lower floor stairwell to assist disabled persons.

Should this be a real emergency, the Arlington Fire Department and UTA Police will also be here to help.

ACADEMIC DISHONESTY: All students are expected to pursue their scholastic careers with honesty and integrity.

It is the philosophy of this Department, this instructor and the University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

“Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, or any act designed to give unfair advantage to a student or the attempt to commit such acts.” Regents *Rules and Regulations*, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22.

Institutional procedures regarding charges of academic dishonesty are outlined in Part II, Chapter 2, of the **Handbook of Operating Procedures of The University of Texas at Arlington**. Copies of the Handbook are available at more than 75 locations on campus, including the Student Congress office, the Library, and the Department Office.

THE INSTRUCTOR RESERVES THE RIGHT TO MAKE CHANGES TO THE SYLLABUS AS NECESSARY; IT IS THE STUDENT’S RESPONSIBILITY TO BE AWARE OF THESE CHANGES.