BSTAT 3321 Statistics I (Section 008), Spring 2013

Instructor: Dr. Jingguo Wang   **Office:** COBA 531
Phone: 817-272-3520   **Email:** jwang@uta.edu
Class Time: TuTh 11:00AM – 12:20PM   **Classroom**: COBA 241
Office Hours: After Class, or by appointment
Web Site: http://www.uta.edu/webct/
Tutoring Schedule: http://wweb.uta.edu/insyopma/services.html, **Room:** COBA 635

Description of Course Content:

Application of Statistical techniques to business and economic data. Descriptive statistics, probability distributions, estimation, hypothesis testing, inference and some linear regression and correlation.

Required Textbooks and Other Course Materials:

D. Levin, D. Stephan, T. Krehbiel, M. Berenson. 2009. *Statistics for Manager* (6th ed.). Prentice Hall. ISBN 10: 0-13-703519-5.

Software Required: Microsoft Excel

Prerequisites: BUSA2303 and Math1315 (or business calculus) plus use of MS Excel

Student Learning Outcomes

1. The student will be able to *evaluate verbal, numeric, and graphic descriptions of a data set.
2. The student will be able to select a simple random sample and to evaluate the role of randomness in data collection (both sampling and experimentation). The student will restrict causal inferences to data collected from experiments.
3. The student will be able to analyze probability problems by choosing and applying basic laws of probability, computing and interpreting results.
4. 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 analyze binomial and normal probabilities.
5. The student will be able to analyze scenarios appropriate for the Central Limit Theorem and choose the sampling distributions to find and interpret probabilities for the sample mean and sample proportion.
6. The student will be able to set up, calculate, 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.
7. The student will be able to set up and test hypotheses about a population mean and a population proportion and to interpret the results.
8. The student will be able to fit and interpret simple linear regression models along with the usual inferences.

9. The student will be able to use a software package in order to perform appropriate statistical analyses.
10. The student will be able to select and justify appropriate statistical techniques for a given scenario.

*For all topics, the student will be able to demonstrate knowledge and comprehension, for example by defining the new terms in the topic and describing and restating the concepts covered in each topic. The abilities to apply, analyze, synthesize and evaluate are assumed to be hierarchal. In other words, the ability to evaluate and synthesize presumes an ability to analyze and apply. Likewise the ability to analyze presumes an ability to apply.

The course grade reflects the proportion of topics that the student masters.

Descriptions of major examinations:
    Exams: Feb. 5, Mar. 5, Apr. 11.
    Final Exam: May 7, 11:00 a.m. – 1:30 p.m

Grading
3 Exams	60% (20% each)
Final Exam	30%
5 Popup Quizzes	10%
Total	100%

1. An total of 90% or higher will be required to earn a letter grade of A, 80-89% for B, 70-79% for C, 60-69% for D, 59% or less for F. A course curve, at the discretion of the instructor, may be implemented at the end of the semester, based on the overall performance of the class.
2. There will be 3 exams during the semester, and 1 final exam. All exams are closed book. The duration for the first 3 exams will be 1 hour and 10 minutes each. The duration for the final is 2 hours and 30 minutes. Calculator can be used in all those exams, but no computers or cell phones. If you have any question concerning a grade you receive in an exam, it is your responsibility to inform me within one week of the exam being returned to you. Grades will not be discussed after that time.
3. There will be several popup open-book quizzes. You may use your own textbook or notes during the quizzes. The duration for each quiz is 10 minutes. If you have attended more than 5 quizzes, the best 5 quiz scores will be accounted into your final grades.
4. No makeup exam/quiz will be managed. If you miss an exam without a valid excuse, then your grade in that exam will be zero. Examples of valid excuses are serious illness, required travel associated with your job, death in the immediate family, or participation in University sponsored events. Any requests for this missed-grade replacement must be accompanied by written documentation: doctor's excuse, letter by your superior on company/university letterhead, etc. Your grade on the final will be used to replace any one grade for those who have missed an exam due to a valid reason. The final can only replace one missed exam.
5. For each chapter, there are practice quiz and chapter test available at Blackboard. You can finish these exercises for each chapter to prepare for the exams. You can also work

out a list of selected problems after each section announced at Blackboard to help review and get familiar with important concepts. The answers for those problems can be found at the end of the textbook.

Class Attendance

Attendance is mandatory. If you must miss class for some reason, you are still responsible for the material you missed. No student will be dropped from the class rolls for never attending class or for accumulating excess absences. Any class attendance and lateness policies introduced in this class include by reference all provisions for grade adjustment or drop policies included in the applicable Graduate or Undergraduate Catalog in effect at the start of the semester.

Classroom Conduct/Expectation

1. Read the chapter before the corresponding lecture.
2. Arrive at class on time and, do not leave early (if you have to leave early, you must get the instructor's permission in advance).
3. Ask questions during lecture if you do not understand something.
4. Do not talk to your classmates about topics that are not related to the class during the class time.
5. Digital devices such as cell phone, pager, iPod, etc. that are not related to the course are prohibited during the class time.
6. You may have a laptop in class to use excel for data analysis and/or follow along on class notes. If you are multitasking during class and using your laptop for tasks unrelated to class, please sit in the last row of the classroom so that you do not distract other students.

Drop Policy: The University of Texas at Arlington's drop policy will be in effect for this course. *Last Day to Drop* is **March 29, 2013**. Do not assume that a course will be dropped automatically if you do not attend.

Grade Grievance Policy: University policy will be followed to handle any grade grievance. You should first contact the instructor and discuss the matter by email or in person and provide any supporting material for your grievance. If the grievance is not satisfactorily resolved, you can follow the University Guidelines for further action. Please refer to the University Catalog for details.

Incomplete Grades: A grade of incomplete will only be given under extraordinary unforeseen circumstances at the instructor's discretion and must be approved prior to the end of the course. Poor performance, absences or travel are not considered sufficient grounds for incompletes. Instructors are not obligated to give "incomplete" grades.

Academic Integrity: Cheating is not acceptable and will be handled in accordance with the policy and Procedures University of Texas at Arlington. Please refer to the University Catalog for details.

Final Note: Please talk to me if you experience any difficulties during the semester. Suggestions will only help improve the class, and will not in any way affect my evaluation of your

performance. Students who need special consideration because of a disability should make an appointment to see me.

Tentative Course Schedule

*The Instructor reserves the right to alter this schedule as circumstances warrant.

Session	Date	Topic	Readings
1	1/15	Syllabus/Introduction	Ch01, all sections
2	1/17	Organizing and Visualizing Data	Ch07, sections 1 and 2 Ch02, sections 1-7, 9
3	1/22	Organizing and Visualizing Data	
4	1/24	Numerical Descriptive Measures	Ch03, sections 1,2,4,5
5	1/29	Numerical Descriptive Measures	
6	1/31	Review	
7	2/5	**Exam 1 (Ch 1,2,3)**	
8	2/7	Basic Probability	Ch04, sections 1-3
9	2/12	Basic Probability	
10	2/14	Discrete Probability Distribution	Ch05, Section 3
11	2/19	Discrete Probability Distribution	
12	2/21	Continuous Distributions	Ch06, sections 2, 3
13	2/26	Continuous Distributions	
14	2/28	Review	
15	3/5	**Exam 2 (Ch 4, 5, 6)**	
16	3/7	Sampling and Sampling Distributions	Ch07, sections 3-5
17	3/12	**Spring Break**	
18	3/14	**Spring Break**	
19	3/19	Sampling and Sampling Distributions	
20	3/21	Confidence Interval Estimation	Ch08, sections 1-4
21	3/26	Confidence Interval Estimation	
22	3/28	Fundamentals of Hypothesis Testing	Ch09, sections 1-5
23	4/2	Fundamentals of Hypothesis Testing	
24	4/4	Fundamentals of Hypothesis Testing	
25	4/9	Review	
26	4/11	**Exam 3 (Ch 7, 8, 9)**	
27	4/16	Simple Linear Regression	Ch13,1-5, 7 &8
28	4/18	Simple Linear Regression	
29	4/23	Simple Linear Regression	
30	4/25	Simple Linear Regression	
31	4/30	TBD	
32	5/2	TBD	
33	5/7	**Final Exam** 11:00 a.m. – 1:00 p.m.	

March 18-22, Spring 2012 Business Week

Last Day to Drop Class: March 29, 2013

UNIVERSITY POLICIES

ATTENDANCE AND DROP POLICY:

Students are required to read and be prepared to discuss the assigned textbook chapters and workbook exercises on the scheduled class days.

Class attendance and lateness policies will be discussed during the first week of class. Those policies include by reference all provision for grade adjustment or drop policies included in the applicable Graduate or Undergraduate Catalog in effect at the start of the semester. **NO STUDENT WILL BE DROPPED FROM THE CLASS ROLLS FOR NEVER ATTENDING OR EXCESSIVE ABSENCES**.

A student dropping a course after the Census Date but on or before the appropriate final drop date will receive a grade of "W" *only* if at the time of dropping, the student is passing the course (has a grade of A, B, C, or D); otherwise an F will be received.

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 Accounting Department Office (Davis Hall).

GRADE GRIEVANCES: The procedure in the 1997 catalog is the following: "The student has one calendar year from the date the grade is assigned to initiate the grievance. The normal academic channels are the department chair or program director, academic dean, and the Provost...."

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 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.

BOMB THREATS: Effective April 8, 1997, the College of Business Administration has adopted a policy to deal with the classroom disruption caused by bomb threats in the building. (A) Section 22.07 of the Texas Criminal Law Statutes governs terrorist threats and classifies bombs threats as Class A misdemeanors. Section 12.21 of the Texas Criminal Law Statues states that a Class A misdemeanor is punishable by (1) a fine not to exceed $4,000, (2) a jail term of not more than one year, or (3) both such a fine and confinement. (B) If anyone is tempted to call in a bomb threat, be aware that UTA will soon have technology to trace phone calls. (C) Every effort will be made to avoid cancellation of presentation/tests caused by bomb threats to the Business Building. Unannounced alternate sites will be available for these classes. If a student who has a class with a scheduled test or presentation arrives and the building has been closed due to a bomb threat, the student should immediately check for the alternate class site notice which will be posted on/near the main doors on the south side of the Business Building. If the bomb threat is received while class is in session, your instructor will ask you to leave the building and reconvene at another location. (D) Students who provide information leading to the successful prosecution of anyone making a bomb threat will receive one semester's free parking at the Maverick Garage across from the Business Building. UTA's CrimeStoppers will provide a reward to anyone providing information leading to an arrest. To make an anonymous report, call 817-272-5245.

FEE PAYMENT: If you don't pay your fees you will be dropped from class by the Registrar and will not eligible for reinstatement..

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.