

BSTAT 3321 - 007 –Business Statistics I

Syllabus – Spring 2016

INSTRUCTOR: Mr. George Kurian, MBA

OFFICE: 504

OFFICE HOURS: Wednesday, 10- 10:50 am or by appointment

TIME AND PLACE OF MEETING: COBA 241, Monday and Wednesday 5:30 to 6:50 pm

E-MAIL: gkurian@uta.edu

PREREQUISITE: Math 1316 or Calculus

TEXT MATERIALS REQUIRED:

- (1) Statistics for Management and Economics, 10th Edition by Keller, There are several versions of this available (a) the reduced-content paperback available in the bookstore, (b) the full hardback, or the full e-textbook version. If you need to take BSTAT 3322 or 5325, you will need the full version of the book.
- (2) A Spreadsheet PC package (preferably Excel) that has some statistical capabilities.

Course Material Required:

- (1) 3 Scantrons (882-E)
- (2) A basic calculator that can do arithmetic operations and square roots.

COURSE DESCRIPTION: (From catalog) Application of statistical techniques to business and economic data. Topics include descriptive statistics, probability distributions, estimation, inference, regression, correlation, and time series.

COURSE OBJECTIVE: The course introduces the student to the basic principles and applications of descriptive and inferential statistics. The course assists students to become knowledgeable consumers of statistical analysis, its applications and limitations.

LEARNING OUTCOMES:

1. 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.
2. The student will be able to apply the complement, addition, and multiplication laws of probability.
3. 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.
4. 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.
5. 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.
6. The student will be able to test hypotheses about a population mean and a population proportion and to interpret the results.
7. The student will be able to fit and interpret simple linear regression models along with the usual inferences.
8. The student will be able to construct graphs, compute descriptive statistics, make

inferences and fit simple regression models using appropriate software such as Excel.

Test/ Assignment	Weightage for final grade	Format
Assignment 1	5%	Group typed paper
Assignment 2	5%	Group typed paper
Assignment 3	5%	Group typed paper
Assignment 4	5%	Group typed paper
Exam 1	25%	Multiple choice
Exam 2	25%	Multiple choice
Final Exam	30%	Multiple choice

GRADES: A = 90% and above, B = 80% - 89.9999%, C = 70% - 79.9999%, D = 60% - 69.9999%, F = 0% - 59.9999%.

TESTS AND ASSIGNMENTS: There will be three closed-book exams. One scantron will be required for each exam. The final exam will be comprehensive. If bad weather prevents a class from being held, then the schedule will be moved down a class day. There are 4 assignments. Assignments will be posted on blackboard one week before it is due. Late assignments will not be graded. Assignments will done in groups.

ATTENDANCE: At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. I will be taking attendance daily. However this does not affect grades.

MAKE-UP EXAMS: Your grade on the final will be used to replace one mid-term grade, for those who have missed the exam due to illness or death of an immediate family member. Appropriate documentation such as doctor's letter is required.

DROP POLICY: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/aao/fao/>).

BLACKBOARD: All assignments will be submitted through Blackboard. Grades will be posted on blackboard. Blackboard can be found at <http://elearn.uta.edu>.

Tentative course schedule:

Date	Chapter/ Exam	Description
Jan 20 & 25	Chapter 1	Introduction to course.
Jan 27 & Feb 1	Chapters 5, 2 and 3	Types of data sampling, graphical descriptions of data.
Feb 3 & 8	Chapter 4	Numerical descriptions of data.
Feb 10	Chapter 6	Basic Rules of probability.
Feb 15	Chapter 7. Assignment 1 due.	Binomial distribution rules.
Feb 17	Review.	
Feb 22	Exam 1	
Feb 24, 29 & March 2	Chapter 8,9	Normal and sampling distributions.
March 7, 9 & 21	Chapter 10,12	Confidence interval for means and proportions.
March 23, 28, 30 & April 4	Chapter 11,12. Assignment 2 due on March 23.	Introduction to hypothesis testing.
April 6	Review	
April 11	Exam 2	
April 13-27	Chapter 16. Assignment 3 due on April 25.	Simple linear regression.
May 2 & 4	Review. Assignment 4 due on May 4.	
May 9, 5:30 to 8 pm	Final exam (Comprehensive)	

Note: Check the Academic Calendar for exact drop date.

ACADEMIC INTEGRITY: Students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System Regents' Rule 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

ELECTRONIC COMMUNICATION: UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

AMERICANS WITH DISABILITIES ACT: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

STUDENT FEEDBACK SURVEY: At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For

more information, visit <http://www.uta.edu/sfs>.

FINAL REVIEW WEEK: A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

Title IX: The University of Texas at Arlington is committed to upholding U.S. Federal Law “Title IX” such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit www.uta.edu/titleIX.

STUDENT SUPPORT SERVICES: UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to resources@uta.edu, or view the information at www.uta.edu/resources.

EMERGENCY EXIT PROCEDURES: Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

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.

Emergency Phone Numbers In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911.