OPRE 6301.008/SYSM 6303.008 (cross listed course) –
Quantitative Introduction to Risk and Uncertainty in Business

Professor	Sonia E. Leach, Ph.D.
Term	Fall 2016
Meetings	Thur: 10:00AM – 12:45 PM; JSOM 11.210

Professor's Contact Information

Office Location/Phone JSOM 3.229/972-883-5845

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Office Hours By appointment at utdscm.genbook.com. Instructor office hours are to be used to discuss specific concerns or concepts from the course and should not be viewed as an opportunity for additional instruction or tutoring. Your primary source of instruction is your attendance at scheduled course lectures, reading your textbook and working with your classmates and your course TA.

TA Information Name and contact information will be posted on eLearning.

Other Information Preferred communication is through email. As I teach several different courses, and multiple sections of some courses, please be sure to include "OPRE 6301.008" or "SYSM 6303.008" in the subject line of all email messages.

About the Instructor Dr. Leach began her association with UT Dallas in 2012 as a Clinical Associate Professor upon retirement from her 20-year active-duty career in the United States Air Force. She has over 15 years of studying and performing statistical analysis, three of which were in direct support of U.S. Congressional budget decisions. Her teaching expertise includes probability and statistics, operations management, global supply chain management, spreadsheet modeling and analytics, and project management. Dr. Leach has earned a BS in Mathematics from The Pennsylvania State University, a MS in Operations Research from the Air Force Institute of Technology and a Ph.D. in Industrial Engineering from Arizona State University.

General Course Information

PRE-REQUISITE
Math 5304 or equivalent

COURSE DESCRIPTION
Introduction to statistical and probabilistic methods and theory applicable to situations faced by managers. Topics include: data presentation and summarization, regression analysis, fundamental probability theory and random variables, introductory decision analysis, estimation, confidence intervals, hypothesis testing, and One Way ANOVA

LEARNING OUTCOMES AND EXPECTATIONS
Active and informed participation is expected from every student. Class sessions will consist primarily of lecture, with some discussions and in - class exercises as appropriate to the topic being covered. Textbook readings are a major source of learning in this course. Therefore, students are expected to read the appropriate text book chapters in preparation for exams. Students should expect to spend an average of 9 to 12 hours per week on class preparation and studying activities outside of class meetings. Learning outcomes – upon completion of this course, students will be able to accomplish the following:
1. Organize and summarize raw data
2. Build and evaluate a regression model from raw data
3. Apply the basic rules of Probability Theory
4. Apply the concept of a random variable to solve business problems
5. Apply the Normal, Poisson, and Binomial Distributions to solve business problems
6. Identify significant changes in averages and proportions
7. Determine if two populations have the same mean or the same proportion
8. Determine if several populations have the same mean

REQUIRED TEXT
Statistics for Management and Economics (10 th Edition - Abbreviated) *by Keller. ISBN: 978-1-285-86964-3*

REQUIRED SOFTWARE AND DOWNLOAD
1. Microsoft Excel
2. Data Analysis Add-In – see MS Excel Help for instructions on activating
3. Data Analysis Plus – see page 10 of your textbook for download instructions.

Course Grading Information

GRADING CRITERIA
Course grades will be determined based upon your performance relative to the class as a whole.

EXAMS
Three (3) exams will be given in this course. Each exam will contribute 33 1/3% toward your final grade (100% total).

All exams will be administered through eLearning at the Student Success Center Testing Center in McDermott Library, MC 1.401. You will have access to all Excel Add-Ins and Workbooks appropriate for the content on each exam. You must reserve a seat for each exam at www.utdallas.edu/studentsuccess/testingcenter/.

ADDITIONAL INFORMATION
Makeup examinations will **NOT** be offered for this course. Students who miss an exam will receive a score of zero. Please be certain that you can take all course exams during the monitored exam windows on the designated dates which are listed on the Course Academic Calendar in this syllabus. Any exceptions to the schedule must be approved by the instructor on a case-by-case basis at least one week prior to the scheduled exam time.

Extra credit will **NOT** be offered for any graded portions of this course.

Late work will **NOT** be accepted under any circumstances.

Weighted Average Grade	Earned Course Letter Grade
93 +	A
90 – 92.99	A-
87 – 89.99	B+
83 – 86.99	B
80 – 82.99	B-
77 – 79.99	C+
70 – 76.99	C
Under 70	F

Course Grading Information

Graded Component	% Contribution
Exam 1	33 1/3%
Exam 2	33 1/3%
Exam 3	33 1/3%

Course Total: 100%

Emails to the professor, after each exam and/or after the semester is completed, requesting extra credit work and/or a grade higher than actually earned, will not be answered. There is no extra credit. The semester grade received is the grade earned.

TENTATIVE Course Schedule

The following is a **tentative schedule** which will be followed as closely as possible. However, should changes become necessary, they will be announced in class. It is your responsibility to keep track of changes announced in class and/or posted on eLearning.

WEEK #	DATE	LECTURE TOPIC/ASSIGNMENTS/EXAMS
Week 1	Thur, Aug 25	Course Overview and Syllabus Review Chap 1: What is Statistics? Chap 2: Graphical Descriptive Techniques I
Week 2	Thur, Sep 1	Chap 3: Graphical Descriptive Techniques II Chap 4: Numerical Descriptive Techniques
Week 3	Thur, Sep 8	Chap 4: Numerical Descriptive Techniques Chap 5: Data Collection and Sampling
Week 4	Thur, Sep 15	Chap 6: Probability
Week 5	Thur, Sep 22	Chap 7: Random Variables and Discrete Probability Distributions Chap 8: Continuous Probability Distributions
Week 6	Thur, Sep 29	**Exam #1 (Chaps 1-6)**
Week 7	Thur, Oct 6	Chap 8: Continuous Probability Distributions Chap 9: Sampling Distributions
Week 8	Thur, Oct 13	Chap 10: Introduction to Estimation Chap 8.4a: Student t Distribution Chap 8.4b: F Distribution
Week 9	Thur, Oct 20	Chap 11: Introduction to Hypothesis Testing Chap 12: Inference about One Population
Week 10	Thur, Oct 27	Chap 13: Inference about Two Populations
Week 11	Thur, Nov 3	**Exam #2 (Chaps 7-11)**
Week 12	Thur, Nov 10	Chap 14: Analysis of Variance (ANOVA)
Week 13	Thur, Nov 17	Chap 16: Simple Linear Regression
Week 14	Thur, Nov 24	**Fall Break – No Class Lecture**
Week 15	Thur, Dec 1	Chap 17: Multiple Linear Regression
Finals Period	Thur, Dec 15	**Exam 3 (Chaps 12-14, 16, 17)**

Accessibility Accommodations

It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with me and allow one week advance notice. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student AccessAbility for a confidential discussion. OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at (972) 883-2098, or by email at studentaccess@utdallas.edu.

Academic Integrity

The faculty and administration of the School of Management expect from our students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. We want to establish a reputation for the honorable behavior of our graduates, which extends throughout their careers. Both your individual reputation and the school's reputation matter to your success.

The Judicial Affairs website lists examples of academic dishonesty. Dishonesty includes, but is not limited to cheating, plagiarism, collusion, facilitating academic dishonesty, fabrication, failure to contribute to a collaborative project and sabotage. Some of the ways students may engage in academic dishonesty are:

- Coughing and/or using visual or auditory signals in a test;
- Concealing notes on hands, caps, shoes, in pockets or the back of beverage bottle labels;
- Writing in blue books prior to an examination;
- Writing information on blackboards, desks, or keeping notes on the floor;
- Obtaining copies of an exam in advance;
- Passing information from an earlier class to a later class;
- Leaving information in the bathroom;
- Exchanging exams so that neighbors have identical test forms;
- Having a substitute take a test and providing falsified identification for the substitute;
- Fabricating data for lab assignments;
- Changing a graded paper and requesting that it be regraded;
- Failing to turn in a test or assignment and later suggesting the faculty member lost the item;
- Stealing another student's graded test and affixing one's own name on it;
- Recording two answers, one on the test form, one on the answer sheet;
- Marking an answer sheet to enable another to see the answer;
- Encircling two adjacent answers and claiming to have had the correct answer;
- Stealing an exam for someone in another section or for placement in a test file;
- Using an electronic device to store test information, or to send or receive answers for a test;
- Destroying or removing library materials to gain an academic advantage;
- Consulting assignment solutions posted on websites of previous course offerings;
- Transferring a computer file from one person's account to another;
- Transmitting posted answers for an exam to a student in a testing area via electronic device;
- Downloading text from the Internet or other sources without proper attribution;
- Citing to false references or findings in research or other academic exercises;
- Unauthorized collaborating with another person in preparing academic exercises.
- Submitting a substantial portion of the same academic work more than once without written authorization from the instructor.

http://www.utdallas.edu/judicialaffairs/UTDJudicialAffairs-Basicexamples.html

Plagiarism

Plagiarism on written assignments, especially from the web, from portions of papers for other classes, and from any other source is unacceptable. On written assignments, this course will use the resources of turnitin.com, which searches the web for plagiarized content and is over 90% effective.

Conduct During Course Evaluations

During tests and quizzes, students in this section are not allowed to have with them any food or drinks, scratch paper, course materials, textbooks, notes, invisible ink pens, or electronic devices, including iPads, iPhones, iPods, MP3 players, earphones, radios, smart phones, cameras, calculators, multi-function timepieces, or computers. When possible, students should sit in alternating seats, face forward at all times, and remove any clothing which might conceal eye movements, reflect images of another's work, or hide course material for copying. Exam proctors will monitor any communication or signaling between students by talking, whispering, or making sounds, or by using your hands, feet, other body movements, the test paper itself or your writing implement.

Academic Dishonesty

Students in this course suspected of academic dishonesty are subject to disciplinary proceedings, and if found responsible, the following minimum sanctions will be applied:

- **Homework – Zero for the Assignment**
- **Case Write-ups – Zero for the Assignment**
- **Quizzes – Zero for the Quiz**
- **Presentations – Zero for the Assignment**
- **Group Work – Zero for the Assignment for all group members**
- **Exams – A final course grade of "F"**

These sanctions will be administered only after a student has been found officially responsible for academic dishonesty, either through waiving their right for a disciplinary hearing, or being declared responsible after a hearing administered by Judicial Affairs and the Dean of Student's Office.

In the event that the student receives a failing grade for the course for academic dishonesty, the student is not allowed to withdraw as a way of preventing the grade from being entered on their record. Where a student receives an F in a course and chooses to take the course over to improve their grade, the original grade of F remains on their transcript, but does not count towards calculation of their GPA.

The School of Management also reserves the right to review a student's disciplinary record, on file with the Dean of Students, as one of the criteria for determining a student's eligibility for a scholarship.

Judicial Affairs Procedures

Under authority delegated by the Dean of Students, a faculty member who has reason to suspect that a student has engaged in academic dishonesty may conduct a conference with the student in compliance with the following procedures:

(i)   the student will be informed that he/she is believed to have committed an act or acts of academic dishonesty in violation of University rules;

(ii)   the student will be presented with any information in the knowledge or possession of the instructor which tends to support the allegation(s) of academic dishonesty;

(iii) the student will be given an opportunity to present information on his/her behalf;

(iv)   after meeting with the student, the faculty member may choose not to refer the allegation if he/she determines that the allegations are not supported by the evidence; or

(v)   after meeting with the student, the faculty member may refer the allegations to the dean of students along with a referral form and all supporting documentation of the alleged violation. Under separate cover, the faculty member should forward the appropriate grade to be assessed if a student is found to be responsible for academic dishonesty;

(vi)   the faculty member may consult with the dean of students in determining the recommended grade;

(vii) the faculty member must not impose any independent sanctions upon the student in lieu of a referral to Judicial Affairs;

(viii) the faculty member may not impose a sanction of suspension or expulsion, but may make this recommendation in the referral documentation

If the faculty member chooses not to meet with the student and instead forwards the appropriate documentation directly to the dean of students, they should attempt to inform the student of the allegation

and notify the student that the information has been forwarded to the Office of Dean of Students for investigation.

The student, pending a hearing, remains responsible for all academic exercises and syllabus requirements. The student may remain in class if the student's presence in the class does not interfere with the professor's ability to teach the class or the ability of other class members to learn. (See Section 49.07, page V-49-4 for information regarding the removal of a student from class).

Upon receipt of the referral form, class syllabus, and the supporting material/documentation from the faculty member, the dean shall proceed under the guidelines in the Handbook of Operating Procedures, Chapter 49, Subchapter C. If the respondent disputes the facts upon which the allegations are based, a fair and impartial disciplinary committee comprised of UTD faculty and students, shall hold a hearing and determine the responsibility of the student. If they find the student in violation of the code of conduct, the dean will then affirm the minimum sanction as provided in the syllabus, and share this information with the student. The dean will review the student's prior disciplinary record and assess additional sanctions where appropriate to the circumstances. The dean will inform the student and the faculty member of their decision.

UT Dallas Syllabus Policies and Procedures
The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.