BZAN 6310 - Quantitative Analysis for Business Decisions
Fall 2017

Bauer College of Business
University of Houston
Department of Decision and Information Systems

Location: CEMO 101   **Time:** Tuesday 6:00-9:00pm

Instructor: Eylem Tekin, Ph.D.
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COURSE DESCRIPTION

Managers, in all areas of business, analyze large complex data sets to make important decisions and help their companies gain competitive advantage. The goal of this course is to teach students how to use a variety of quantitative methods to analyze data, and make decisions in a very hands-on way. The course is composed of four major parts. First, we will illustrate a number of ways to summarize information in data sets. Uncertainty is a key aspect of most business problems. Second, we will discuss how to model uncertainty using key concepts from probability theory. Next, we will focus on statistical inference, and discuss how sampling, confidence interval estimation, and hypothesis testing are used to make sense of data in solving business problems. Finally, we will discuss regression analysis to model relationships between variables, and forecasting. The course will include many examples from finance, marketing, operations, accounting, and other areas of business. Throughout the course, we will use Microsoft Excel spreadsheet software.

PREREQUISITE

Students taking this course are expected to be proficient in Excel. This includes being able to use common Excel tools such as range names, statistical and financial functions, lookups, data tables, goal seek, pivot tables, IF/COUNTIF statements, etc. A good tutorial on all these tools (and more) can be found here: http://www.kelley.iu.edu/albrightbooks/Free_downloads.htm

REQUIRED COURSE MATERIALS

Business Analytics: Data Analysis and Decision Making, 6th ed.
ISBN 978-1-305-94754-2
NOTE: This textbook comes with access to software which we will utilize during the course.

Laptop Computer
Windows XP/Vista/Windows 7 or higher (Mac users must be able to run Windows)
Microsoft Excel 2013 for Windows
Licensed Version of StatTools included in Palisade Decision Tools Suite
(included with textbook or available at www.palisade.com)

EXPECTED COURSE OUTCOMES

By successfully completing this course, students will be able to:

- Analyze data and build statistical models using Microsoft Excel software.
- Sharpen their ability to perform logical data analysis.
- Summarize useful information in data sets and provide insightful graphs.
- Build basic understanding of probability.
- Use probability models, statistical inference and regression analysis to analyze business data, and make effective decisions based on the results.

COURSE GUIDELINES

Class Attendance: It is strongly recommended that you attend all classes, arrive on time for each class, and prepare to leave after class has been dismissed. Active participation in class is also expected. During class, material may be covered that is not included in the textbook, and further explanation of textbook material may be given. Students are responsible for all material presented, assigned, or collected during class, regardless of whether absent or present.

Blackboard: Course materials, announcements, grades or changes to the course outline will be posted on Blackboard Learn. It is the student's responsibility to check Blackboard before every class period for important announcements, class notes, emails, grades and changes to the course schedule.

Technology in class: Please turn off all cell phones before entering class. Ringing phones and beeping pagers are distracting to other students and the instructor. During class examples, you are encouraged to work along with your own computer. Make sure you have a working version of Excel 2013 on your computer in the beginning of each class. During class time, students are allowed to use their computers for class business only (not for email, web surfing, etc.).

Preparation for class: Reading assignments and study problems from the book will be posted on Blackboard on a regular basis. It is essential that students complete these assignments prior to attending a class session.

Keep in mind that the purpose of the assignments is to help you to learn the material. If you do the assignments on your own, you can develop the skills needed in this course and perform well in the exams. I am here to help you learn this material. I strongly encourage that you all participate in class, and do not hesitate to ask any questions you might have about the material both in class and during my office hours.

*Academic Integrity Policy***:** The University of Houston Academic Honesty Policy is strictly enforced by the C. T. Bauer College of Business. No violations of this policy will be tolerated in this course. A discussion of the policy is included in the University of Houston Student Handbook, http://catalog.uh.edu/content.php?catoid=6&navoid=1025. Students are expected to be familiar with this policy.

Any material submitted for course credit must be your own work if it is an individual-based assignment or the work of your team if it is a group-based assignment. Students are not permitted to discuss, read, etc. the work, thoughts, and ideas regarding the cases or exams with other students (or another team for group case work). If outside references are used, they must be properly referenced. Plagiarizing or copying the work done by others is a violation of the Academic Honesty Policy.

Academic misconduct is a serious threat to the integrity and value of your degree. The instructor will strictly follow the Academic Honesty Policy in areas of plagiarism, fabrication, cheating, and other forms of academic misconduct. Any academic misconduct will result a failing grade in the course, and will be reported to the university.

Copyrights: All materials generated for this class are copyrighted. Because these materials are copyrighted, you, as a registered class member, may print a copy for yourself, but do not have the right to further print, copy, and/or distribute the handouts, unless I expressly grant permission.

Disability Accommodation: The C. T. Bauer College of Business would like to help students who have disabilities achieve their highest potential. To this end, in order to receive academic accommodations, students must register with the Center for Students with Disabilities (CSD) (telephone 713-743-5400), and present approved accommodation documentation to their instructors in a timely manner.

CAPS Counselling and Psychological Services: Counselling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS (www.uh.edu/caps) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis. Also, there is no appointment necessary for the "Let's Talk" program, which is a drop-in consultation service at convenient locations and hours around campus. http://www.uh.edu/caps/outreach/lets_talk.html.

Religious Holy Days: The University of Houston respects the religious observances of students even though they may conflict with university class meetings, assignments, or examinations as outlined in the University of Houston Student Handbook. Potential conflicts with assignment due dates and examinations must be discussed with the instructor **within the first week of class** to be eligible for scheduling changes.

Makeup Policy: According to University Policy, a makeup examination will be administered only if the instructor is furnished with written evidence that a student is:
1. Participating in an activity appearing on the University Authorized Activity List and <u>must</u> be preceded by authorized, written, notice.
2. Confined to home or bed by physician on account of illness.
3. Bereaved by a death in his/her immediate family.
4. Participating in legal proceedings that require his/her presence.

If you miss an exam/quiz due to a valid excuse as listed above, you have to notify the instructor as soon as possible but no later than 48 hours after the scheduled exam, and provide a <u>written evidence</u> as soon as possible. Otherwise, you will not be allowed to take a makeup exam/quiz and you will receive a grade of ZERO (0) for that exam/quiz.

COURSE EVALUATION

Exam 1	(In class)	25%	(September 26)
Exam 2	(In class)	25%	(October 31)
Exam 3	(Take home)	30%	(December 1 to 3)
Case Assignments		15%	
Class Participation		5%	

   I will be posting study problems and reading assignments from the book on Blackboard on a regular basis. It is essential that you keep up with these assignments to do well in the exams.

   No grade will be changed after **one week** from the date the work is returned in class. It is your responsibility to check the accuracy of your grades and report any discrepancy at once.

Grading Scale:

A	92-100%
A-	90-91%
B+	88-89%
B	82-87%
B-	80-81%
C+	78-79%
C	72-77%
C-	70-71%
D+	68-69%
D	62-67%
D-	60-61%
F	below 60%

Grade Posting:

Grades will be available on Blackboard. It is the responsibility of the student to verify the accuracy of the grade and to advise the instructor of any concerns. Unless advised otherwise, grades as of Jan. 31, 2018 are taken to be correct and will not be altered after that date.

TENTATIVE COURSE SCHEDULE
BZAN 6310 – Fall 2017

Week	Date	Topic	Chapter
1	Aug. 22	Course Introduction / Syllabus / Policies	1
2	Aug. 29	Describing the Distribution of a Single Variable	2
3	Sept. 5	Finding Relationships among Variables	3
	Sept. 6	**Last day to drop**	
4	Sept. 12	Probability and Probability Distributions	4
5	Sept. 19	Normal, Binomial, Poisson, and Exponential Distributions	5
6	**Sept. 26**	**Exam 1**	
7	Oct. 3	Sampling and Sampling Distributions	7
8	Oct. 10	Confidence Interval Estimation	8
9	Oct. 17	Hypothesis Testing	9
10	Oct. 24	Hypothesis Testing	9
	Oct. 31	**Last Day to Drop with a 'W'**	
11	**Oct. 31**	**Exam 2**	
12	Nov. 7	Regression Analysis: Estimating Relationships	10
13	Nov. 14	Regression Analysis: Statistical Inference	11
14	Nov. 21	*Thanksgiving week / Independent Study*	
15	Nov. 28	Time Series Analysis & Forecasting	12
16	**Dec.1 – Dec. 3**	**Comprehensive Take Home Exam**	