Department of Decision and Information Sciences
BZAN 6310: Quantitative Analysis for Business
Fall 2018

Instructor: Dr. Jinghui (Jove) Hou ("Hou" is pronounced as / hōl/)
Office hours: Tuesdays 12:30 – 2:00 PM (290A Melcher Hall), or by appointment
Email: jhou@bauer.uh.edu

Class TA: TBD
Class meetings: Mondays 6 – 9 PM (MH 140)
Course website: see Blackboard

COURSE INFORMATION

Description

Data have become a torrent flowing into every area of the global economy. Many companies are seeking to enhance their ability to transform data into valuable insights and actions. The course will provide students with skills to analyze data.

Prerequisite

Students are expected to be proficient in Excel prior to taking this course. This included being able to use common Excel tools such as range names, pivot tables, data tables, lookups, goal seek, conditional/logical IFs, conditional SUM/COUNT/AVERAGE, SUMPRODUCT, and statistical and financial functions. Some good tutorials on all these tools (and more) can be found on Blackboard.

Required Course Materials

Textbook: Business Analytics: Data Analysis and Decision Making 6th edition by S. Christian Albright and Wayne L. Winston. ISBN-13: 978-1-305-94754-2.

Computer and Software: Laptop computer with Windows 7/8/10 OS. Because of issues with the Excel add-ins, Mac users must be able to run Windows. The software that used in the class is Microsoft Excel 2016 or later with an Add-in called *StatTools*, provided with the purchase of the textbook (as part of the Palisade Decision Tools Suite).

Bring your laptop (and a mouse if possible) to every class. We will work through analyses collectively, and hands-on exercises are an important part of the learning process.

COURSE METHODS

1. Class Structure. Classes will incorporate lectures, discussions, and exercises. We are all learners and we all contribute to the quality of the classroom experience. It is important that you review the relevant material in advance so you can benefit from class and contribute to our mutual learning. At times, I may cold call to further the class discussion.

2. Quizzes. There will be computer-based closed book quizzes given during the class period. These quizzes will mainly cover concepts discussed in class. They will be administered through Blackboard.

3. Exams. There will be 3 exams. The exams are focused on the material since the last exam. The subject matter, however, often builds on prior material and thus requires an understanding of it. The exams will be

open book & notes, and on laptops in the classroom. The exams cannot be retaken or taken at other than the scheduled time except under extreme circumstance (see Makeup Policy on page 4).

You are expected to take the exams on your own laptops. Thus, you must bring your laptop to the classroom to take the exams. It is your responsibility to have **all the needed programs installed** (i.e., Excel, *StatTools*, Internet access).

4. Case. There will be a case study that involve applications of lecture concepts and Excel analyses to business problems. You will work on the case in teams of 5, and I will provide you with a dataset with structured guidelines for analysis. Each student is expected to prepare an individual analysis plan and conduct analyses. Individual analyses also need to be submitted to me. Then, team members will discuss their results and write up the final case report together.

After teams are established (at week 13), schedule meetings and distribute a detailed assignment timeline as soon as possible. If a team member does not act accordingly to the team plan, he/she can be dismissed from the team. Then that member will work on his/her own (which is not recommended). More instructions will be provided. **Late submissions will not be accepted.**

5. Homework. There is no graded homework in this course. I will, however, post homework assignments with solutions. I expect you to do these and go over the solutions on your own; the homework assignments will feature problems similar to the exams and cases.

6. Collaboration and Cheating. Collaboration of any kind is **strictly forbidden** on all quizzes and exams. Violations will be reported to Bauer College administration.

7. Contacting the Professor. The best way to reach me is through email. Please allow one business day for email responses. Thus, if you send a message on Friday evening, you may not hear back until Monday afternoon. Please plan accordingly.

If you find that you have any trouble keeping up with homework or other aspects of the course, make sure you let me know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing me when difficulties arise during the semester so that I can help you find a solution.

GRADING

Quizzes @4% each*	20%
Exam #1	20%
Exam #2	20%
Exam #3	20%
Case	20%
Class Performance Bonus	2%

*Your quiz score for the course will be calculated as the sum of your five (5) highest quiz scores. That is, your lowest quiz score will not count toward your grade.

Final course letter grade follows the numeric-letter grade system shown in the table below.

Grade	Raw Score	Grade	Raw Score
A	> or =92	C	> or =74, but <77
A-	> or =89, but <92	C-	> or =70, but <74
B+	> or =86, but <89	D+	> or =67, but <70

B	> or =83, but <86	D	> or =63, but <67
B-	> or =80, but <83	D-	> or =60, but <63
C+	> or =77, but <80	F	<60

Grades are earned on the basis of performance in this course, not given on the basis of need or effort. Grades will not be rounded up or curved. **For example, if you earn an 85.9999%, you will receive a "B", not a "B+".** No exceptions. NOTE: Grades are not negotiable. I do not reply to email requesting a grade change or extra credit.

COURSE GUIDELINES

The course involves lots of Excel Spreadsheets modeling. To be successful in this course you should be prepared to spend a fair amount of time outside of class practicing your analytics skills. This course is taught using and inverted pedagogy where you are responsible for reviewing the course lectures online BEFORE coming to class so that we can work more challenging problems during class and have more time for discussion.

While we will be using Excel as our primary modeling "language", this is not a course in Excel; rather, it is a course that will help you to integrate much of what you are learning in your MBA curriculum in a way that will allow you to add value to your organization.

Classroom Conduct: All students are expected to behave in a professional and ethical manner at all times. This includes, but is not limited to, the following:

- Coming to class on time and staying until the end of the period. "Attending" class means not only being physically present but also engaged and actively participating in a positive way.
- Using legally licensed copies of the course software and textbook materials.
- Using your computer for class business ONLY; i.e., ***not for email, web surfing, messaging, etc.***
- Taking notes and paying attention during class so that you can ask meaningful questions.
- Working diligently outside of class time to solve the homework problems on your own.
- Strictly observing the university academic honesty policy at all times.

*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.

- Suspected cases of academic misconduct will be reported.
- Penalties for academic dishonesty may include a failing grade in the course, academic probation, and/or dismissal from the University.

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.

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 SCHEDULE
Important: If necessary, this syllabus will be modified. Any modifications to the syllabus will be posted on the course site and email notification will be distributed to course participants.

WK	Date	Topics
1	Aug. 20	Introduction Describing data
2	Aug. 27	Describing data Relationship among variables
3	Sep. 3	Labor Day Holiday - No Class
4	Sep. 10	Probability and normal distribution
5	Sep. 17	Exam #1
6	Sep. 24	Sampling and sampling distributions
7	Oct. 1	Sampling and sampling distributions
8	Oct. 8	Confidence interval estimation
9	Oct. 15	Confidence interval estimation
10	Oct. 22	Exam #2
11	Oct. 29	Hypothesis testing
12	Nov. 5	Hypothesis testing
13	Nov. 12	Regression
14	Nov. 19	Regression cont'd
15	Nov. 26	Exam #3
16	Dec. 3 - 7	Final Exam Period