Department of Decision and Information Sciences
BZAN 6310: Quantitative Analysis for Business
Spring 2022

Instructor: Dr. Briceon C. Wiley
Office hours: By appointment
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Class meetings: Mondays 6 – 9 PM (MH 116)
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 includes 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 7th edition by S. Christian Albright and Wayne L. Winston. ISBN-13: 9780357110041. Because much of our class will be run on the computer and homework will be done online, I recommend the ebook with MindTap. Alternatively, you could get a Cengage Unlimited subscription and rent a physical copy for roughly $8.

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 to be 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).

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

COURSE METHODS

1. Readings. You will be expected to read the related material **before** coming to class each week. The class meeting should be considered the end of a section, not the beginning.

2. Quizzes. There will be computer-based **closed-book** quizzes. These quizzes will review what you have read over the course of the week and must be completed **before** coming to class on Monday evening. There are **no make-up quizzes**.

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. The exams cannot be retaken or taken at other than the scheduled time except under extreme circumstance (see Makeup Policy on page 5).

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

4. Homework. There will be homework assignments tied to each chapter that we complete. The due date for homework will be the Wednesday following our weekly class at 11:59 PM CST. Homework will lose 10 points if it is 1 day late, 30 points if it is 2 days late, and there will be no points awarded if it is turned in after Friday at 11:59 PM CST.

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

6. 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*   10%
Exam #1   25%
Exam #2   25%
Exam #3   25%
Homework   15%
Class Performance Bonus   up to 1%

* Everyone has a bad day, so your lowest quiz grade will be dropped!

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 an inverted pedagogy where you are responsible for reviewing the chapter materials, completing the weekly quiz, and attempting the homework BEFORE coming to class so that we can review and clarify topics together in class, instead of being taught for the first time.

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.

Missed Exams: The student is responsible for obtaining material. This can be done through contacting a classmate or by contacting the Professor. Missed or late exams cannot be made up under any circumstances unless an official excuse is provided. Any uncoordinated, unexcused missed exam will result in a score of 0 for that exam.

COURSE POLICIES

Face Covering Policy: To reduce the spread of COVID-19, the University strongly encourages everyone (vaccinated or not) to wear face coverings indoors on campus including classrooms for both faculty and students.

Presence in Class: Your presence in class each session means that you:

- Are NOT exhibiting any Coronavirus Symptoms that makes you think that you may have COVID-19
- Have NOT tested positive or been diagnosed for COVID-19
- Have NOT knowingly been exposed to someone with COVID-19 or suspected/presumed COVID-19

If you are experiencing any COVID-19 symptoms that are not clearly related to a pre-existing medical condition, do not come to class. Please see Student Protocols for what to do if you experience symptoms and Potential Exposure to Coronavirus for what to do if you have potentially been exposed to COVID-19. Consult the (select: Undergraduate Excused Absence Policy or Graduate Excused Absence Policy) for information regarding excused absences due to medical reasons.

COVID-19 Information: Students are encouraged to visit the University's COVID-19 website for important information including on-campus testing, vaccines, diagnosis and symptom protocols, campus cleaning and safety practices, report forms, and positive cases on campus. Please check the website throughout the semester for updates.

Vaccinations: Data suggests that vaccination remains the best intervention for reliable protection against COVID-19. Students are asked to familiarize themselves with pertinent vaccine information, consult with their health care provider. The University strongly encourages all students, faculty, and staff to be vaccinated.

Reasonable Academic Adjustments/Auxiliary Aids: The University of Houston complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for disabled students. In accordance with Section 504 and ADA guidelines, UH strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a disability requiring an academic adjustments/auxiliary aid, please contact the Justin Dart Jr. Student Accessibility Center (formerly the Justin Dart, Jr. Center for Students with DisABILITIES).

Excused Absence Policy: Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston Undergraduate Excused Absence Policy and Graduate Excused Absence Policy for reasons including: medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to military service, religious holy days, pregnancy and related conditions, and disability.

Recording of Class: Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the Justin Dart, Jr. Student Accessibility Center. If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with *anyone* without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

Syllabus Changes: Due to the changing nature of the COVID-19 pandemic, please note that the instructor may need to make modifications to the course syllabus and may do so at any time. Notice of such changes will be announced as quickly as possible through.

Academic Dishonesty: Plagiarism and cheating are serious offenses and may be punished by failure on exam, paper or project; failure in course; and or expulsion from the University. For more information, refer to the "Academic Honesty Policy" accessible here (http://www.uh.edu/provost/policies/honesty/). 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. Students are expected to be familiar with this policy.

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 must 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 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 written evidence as soon as possible. Otherwise, you will not be allowed to take a makeup exam and you will receive a grade of ZERO (0) for that exam.

COURSE SCHEDULE

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

WK	Date	Topics	Readings & Other Assignments
1	January 24	Introduction Descriptive Statistics	Chapter 2
2	January 31	Descriptive Statistics Relationships among Variables	Chapter 3
3	February 7	Probability	Chapter 5
4	February 14	Normal Distribution	Chapter 5-4
5	February 21	Exam #1	
6	February 28	Sampling and Sampling Distributions	Chapter 7
7	March 7	Confidence Interval Estimation	Chapter 8
8	March 14	Spring Break – No Class!	
9	March 21	Hypothesis Testing	Chapter 9
10	March 28	Exam #2	
11	April 4	Regression Analysis: Estimating Relationships	Chapter 10
12	April 11	Regression Analysis: Statistical Inference	Chapter 11
13	April 18	Intro to Optimization Modeling	Chapter 13
14	April 25	Data Mining	Chapter 17
15	May 2	Exam #3	

Note. Course Calendar is available on Blackboard. Make sure you keep a copy of it.