UNIVERSITY OF HOUSTON
ACCT 7397 - Introduction to Data Analytics in Accounting
Spring 2021

Instructor

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Course Format

This course is taught Asynchronously, which means there is no designated day or time assigned to the course. Asynchronous instruction generally involves accessing content, such as recorded video lectures, readings, discussion prompts, assignments, and assessments during a flexible time frame, with due dates as specified. **However, there are optional weekly synchronous discussions sessions on Wednesdays.**

This course will have a final exam at the course conclusion. The exam will be asynchronous, and the date and time that it will be released and due will be announced during the course. Prior to the exam, descriptive information, such as the number and types of exam questions, resources and collaborations that are allowed and disallowed in the process of completing the exam, and procedures to follow if connectivity or other resource obstacles are encountered during the exam period, may be provided.

Lecture notes, class handouts, updates to this syllabus, updates to the class schedule and other administrative and academic information will be posted on Blackboard. Students are expected to check Blackboard regularly.

Online classes are student-driven (as opposed to face-to-face classes, which are instructor-driven) which means **Student Effort = Student Success**. To be successful you will need to:

- Practice good time management – it is easy to procrastinate.
  - Keep up with the schedule
  - Study and take notes as you would in a face to face class
  - Allocate time for leaning like a face to face class (i.e. MW from 1-2:30)

- Ask questions regularly on the Blackboard Discussion boards. There will be other students wondering the same thing and you will help keep the class informed.

- Come to virtual office with myself or the TA

- Review the Online Class Success page on Blackboard for online class success strategies

Although this is online class, it is not a self-paced class, therefore assignments will open and close weekly. Please review the attached course schedule and the Weekly Activities page in Blackboard. Due dates are stretched throughout the week to help with time management.

Reading assignments and related quizzes will be available on Tuesday and due on the following Monday**. S**oftware modules, which will span multiple weeks, will be available on Thursdays will be due on Wednesdays**.** Therefore, you can work on the items over the weekend and ask questions on Monday and Tuesday before submitting the items on Wednesday. Exams will be on Monday evenings. Please see the course schedule for exact due dates.

Remember - Due dates on online classes are the last opportunity to do the assignment, but they are not the first opportunity. You should always try to work a few days ahead of deadlines.

Course Emails & Communications

Unless you have a personal matter to discuss, please post your questions to the discussion boards. There will be other students wondering the same thing and you will help keep the class informed. You are encouraged to reply to other students' questions on the discussion boards.

During normal business hours, I respond to most emails and discussion board posts within 24 hours. However, I only check my email and discussion board posts occasionally on weekends.

To contact me, the best email to use is the one in Blackboard. (Course Email from the left-menu.) Messages go directly to my office email account, and don't get caught in the spam filter. My replies will go to your same email account as other messages from UH, because there is no in-box in Blackboard.

If you send an email directly to my bauer.uh.edu account, you should use your CougarNet email account and not a personal email account. This way I can validate your identity (needed for FERPA compliance) and your message will not be caught in a spam filter. My replies will go back to your CougarNet email account. Go to UH InfoTech to learn about sending email from your UH Office 365 account: https://uh.edu/infotech/services/office365/email/

Email communications related to this course will be sent to your Exchange email account which each University of Houston student receives. The Exchange mail server can be accessed via Outlook, which provides a single location for organizing and managing day-to-day information, from email and calendars to contacts and task lists. Exchange email accounts can be accessed by logging into Office 365 with your Cougarnet credentials or through Access UH. They can also be configured on IOS and Android mobile devices. Additional assistance can be found at the Get Help page.

Textbooks

You will need to purchase one textbook for this class published by McGraw-Hill. It may be cheaper to buy/rent directly from the publisher than from the UH bookstore.

***Data Analytics for Accounting* Second Edition, 2020, by Vernon J. Richardson; Ryan Teeter; Katie Terrell.**

- Options for acquiring this textbook
    - Bound book - ISBN 978-1-260-83783-4
    - Loose leaf book – ISBN 978-1-260-90431-4
    - eBook from McGraw-Hill – https://www.mheducation.com/highered/product/9781260837834.html?exactIsbn=true

Please remember copying any textbook or portion of a textbook, including a printed copy of an online version, is a violation of the U.S. copyright laws.

Technology Requirements

Students enrolled in online courses with the University of Houston should be aware of the following technology requirements to ensure a successful online learning experience. To enroll and participate in online classes, students must use a desktop computer or laptop (PC or Mac, NOT Google Chromebook) with high-speed internet access, with a microphone and webcam (for online virtual proctored exams and/or synchronous class meetings). Check the requirements below to ensure that your computer is

appropriately equipped: https://uh.edu/online/tech/requirements/. Bauer has also published best practices for online students https://www.bauer.uh.edu/distancelearning/students/.

This course has a strong technology component, and due to the pandemic, you should not rely on the Bauer computer labs for access to software. However, all the software will you need is free for students. You will need access to:

- **Office 365** (Word, Excel etc.) – This is free for download through the Office 365 icon in Access UH. Please use Excel 2016 or Excel in Office 365 to complete the Excel projects. If you use older versions, Excel 2011 or Excel 2013, your projects may not be graded correctly.

- **Stream** – Available for free through Office 365. You will use Stream to view various class videos. Videos will be linked to Blackboard, but you will need to sign in to Stream to access them. You can also go directly to Stream to view them using your CougarNet login.

- **Tableau** – Free visualization software you will download through a link on Blackboard later in the semester. Please do not use another version, because I may be unable to open your assignment for grading. You will complete a software module using Tableau.

- **Alteryx** - Free data analytics software you will download through a link on Blackboard later in the semester. Please do not use another version, because I may be unable to open your assignment for grading. You will complete a software module using Alteryx.

- **UiPath** - Free robotic process automation software you will download through a link on Blackboard later in the semester. Please do not use another version, because I may be unable to open your assignment for grading. You will complete a software module using UiPath.

- **Zoom** – We will use Zoom for office hours and periodic live lectures on complicated topics. See Blackboard>Online Course Success for *Bauer Zoom Guide for Student*s for Zoom download instructions. Any live lectures will be recorded and posted to Stream and linked to Blackboard.

- **Adobe Reader (or equivalent**) – Free software to read PDF files. https://get.adobe.com/reader/ You may want to uncheck all the "optional offers" when you download the product.

Mac users: All assignments are designed to work with the industry standard, Windows PC. Mac users will have to know their computers well enough to adapt and adjust for incompatibilities between PC and MAC versions of Microsoft Office Suite Applications or use Boot Camp or other virtual machine to run Windows and Windows-based software. Boot Camp is a free utility that comes with your Mac and lets you switch between macOS and Windows. You can purchase a copy of Windows very inexpensively through CougarByte, https://cougarbyte.com/cougarbyte/. Two of the software products we will use in this class, UiPath and Alteryx, do not run on Macs.

UH Technology Resources

Contact University Information Technology (UIT) at 713-743-1411 for technology support services, including suggested specifications for purchasing new computers. Technology discounts for students are also available via Cougar Byte. Need financial assistance with a technology purchase? Students who need additional assistance for education-related expenses, especially with technology purchases, are encouraged to call a financial aid representative at 713-743-1010, option 5, to discuss additional assistance options.

The University of Houston is committed to student success, and provides information to optimize the online learning experience through our Power-On website. Please visit this website for a comprehensive

set of resources, tools, and tips including obtaining access to the internet, Access, and Blackboard; requesting a laptop through the Laptop Loaner Program; using your smartphone as a webcam; and downloading Microsoft Office 365 at no cost. For questions or assistance contact UHOnline@uh.edu.

Course Learning Objectives

This course explores business processes and internal controls for accounting information systems (AIS). Students will learn fundamentals related to conceptual and computerized accounting systems, as well as general and application controls related to accounting information systems.

At the conclusion of this class, students will be able to:

1. Explain how the use of data analytics impacts accounting tasks and why it is important for accounting and business.
2. Apply extraction, transformation, and loading (ETL) techniques to prepare data for use in analytics software packages.
3. Provide constructive guidance in decision making by using UiPath, Alteryx, Excel, and Tableau.
4. Create visualizations of data to provide clear insights into accounting and other business data, to effectively communicate those insights, and to support recommendations.
5. Create analytics for predictive analysis; Understand data reduction, regression, and classification approaches to data analysis

These course objectives are focused on 1) specific skills and concepts that are required to be successful in the business world and 2) topics included on the Certified Public Accountant (CPA), Certified Management Accountant (CMA) and Certified Internal Auditor (CIA) exams.

Department of Accountancy and Taxation Learning Objectives

The C.T Bauer College of Business and the Department of Accountancy & Taxation have established Learning Goals for each of our programs as part of our accreditation by The Association to Advance Collegiate Schools of Business. Additional information about the learning goals for accounting may be found at https://www.bauer.uh.edu/departments/accy/mission/.

This course incorporates the following PPA and MSACCY Program Learning Goals:
> (d) ethical awareness
>
> (f) technology skills
>
> (g) analytical problem-solving skills

Prerequisites

ACCT 3371/5371 and ACCT 3367/5367 with a 'C' or higher (or equivalents)

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 Center for Students with

DisABILITIES. 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.

Grading

Reading Assignments	6%
Exam 1	13%
Exam 2	13%
Excel project	13%
Tableau project	13%
Alteryx project	13%
UiPath project	13%
Final Exam	16%
Total	100%

Letter Grade	Average Required
A	93-100
A-	90-92.99
B+	87-89.99
B	83-86.99
B-	80-82.99
C+	77-79.99
C	73-76.99
C-	70-72.99
D+	67-69.99
D	63-66.99
D-	60-62.99
F	<60

No extra credit is available in this course. Grades will not be negotiated; persistent attempts could result in grade reduction.

Grades will be rounded to the next point
(89.5 = A, 89.4 = B+)

Students' grades will depend on their investment in their learning. Student grades reflect the points earned in the class and very little "curve" is given. To be eligible for any curve that might be given, the student must complete all required assignments including ungraded "completion" assignments.

Examinations

There will be two midterm exams and one comprehensive final exam. Midterm exams will start at 7:30pm. Based on recommendations from UH IT to keep the technological problems to a minimum, the final exam will be broken into two 50 question sections starting at 6pm and 7:35pm. You must complete both 50 question sections.

Exams will be online through Blackboard using Respondus Lockdown Browser and Respondus Monitor. Webcams must be turned on during exams to ensure the academic integrity of exam administration. Detailed exam instructions will be posted in Blackboard.

The quizzes are open note open book to help you stay on track throughout the course and to ensure. you are learning the basic foundation material. You will need to apply that basic knowledge on the major exams.

Make-up exams will not be administered under normal circumstances. Missed exams will result in a grade of "zero" for the missed exam. Students encountering situations requiring absence on a scheduled exam day must notify me and make arrangement to take the regularly scheduled exam early.

Reading Assignments

Each week there will be a 10-question reading assignment quiz covering the week's assigned reading. The quizzes are open note open book to help you stay on track throughout the course and are opportunities for you to verify you are learning the basic foundation material. You will need to apply that basic knowledge on the major exams. To access these quizzes, go to Blackboard>Weekly Activities. You have two attempts per quiz and the highest grade will be counted.

The quizzes are due on Monday evening at 10pm and will open a week before the due date.

The short Critical Thinking (non-software related) assignment will also be included in the Reading Assignment grade.

Software Modules

There are four software projects in this class: Excel, Tableau, Alteryx and UiPath. Please see the Software Module Detailed Schedule for the module availability dates and due dates. **Assignments will open on Thursday mornings and will be due on Wednesdays at 10pm.**

Since this is a cross-listed class containing undergraduate (4337) post-graduate (5397), and graduate students (7397), assessments need to reflect the different levels. Therefore, students enrolled in ACCT 7397 will have additional steps in their software assignments

When you are uploading an assignment, please allow enough time for the upload to complete and for unanticipated technical difficulties. Please remember that the cutoff time is based on the time on application's server, not the time on your computer, cell phone or watch**. The cutoff time is 10:00.00pm, not 10:00.01 or 10:00.59.** Therefore, if your device says the time is 9:58pm, but the Blackboard server has 10:00.01, your assignment is late and will not be accepted.

All software projects are individual assignments except for the Alteryx project. The Alteryx project will have both an individual portion and a group portion. Details for all software projects will be posted on Blackboard. Each module will take up to 19-20 study hours to complete, over multiple weeks, so you should ensure you leave yourself enough time to ask questions, update your project and then complete it before the due date.

You are encouraged to discuss assignments and to share insights and experiences with other students; however, you are not permitted to copy files, formulas, homework or answers. Giving or receiving files, homework or answers from other students or the internet will be considered an Academic Honesty violation.

This course is competency-based which means job related tasks have been incorporated into the course and lab assignments. Students are expected to complete the assignments according to standards expected in an office environment including appropriate spelling, grammar, formatting, editing and timeliness.

Participation

Attendance/participation for this course is not specifically graded; however regular class participation is strongly encouraged. It will be difficult to keep up with the material without regular class participation.

You have the flexibility in an online course to study and participate according to your work and personal schedule within each week of study. However, you must still complete assignments by their required due dates. Your challenge is to dedicate the required time for study within your personal schedule.

This syllabus, including the schedule and due dates, should support you in managing time effectively. Marking your reading time, study time and your software assignment time in your personal calendar also will help. As part of your personal schedule, make sure you check the Blackboard Announcements several times a week, so that you can see if I have posted any new information about the course.

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 Blackboard. Students are expected to be aware of additional course policies presented by the instructor during the course.

Academic Honesty

The University of Houston Academic Honesty Policy is strictly enforced by the C. T. Bauer College of Business. Because honesty and integrity are such important factors in the professional community, you should be aware that failure to perform within the bounds of these ethical standards is sufficient grounds for punishment ranging from a grade of "F" in this course to being recommended for expulsion from UH. 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 and online at http://publications.uh.edu/content.php?catoid=14&navoid=4210. Students are expected to be familiar with this policy. For example, giving or receiving files, formulas, homework or answers from other students or the internet is considered an Academic Honesty violation.

Beware of GroupMe or social groups with more than 4-5 people that you actually know. Only you can prevent facing academic honesty disciplinary action. Don't engage with larger student groups where you may be misled, given outdated incorrect information, or answers to quizzes and exams. If quiz or exams questions and answers are posted, all students in the group are in violation of UH Academic Honesty Policy.

Drop Date

The last day to withdrawal from this course without grade penalty is **April 6**. It is your responsibility to sign and submit a course withdrawal form in the Office of Enrollment Services in order to be withdrawn from the course. Students who stop attending without officially dropping the course will receive a failing grade in the course.

6 Drop Rule Limitation - Students who entered college for the first time in Fall 2007 or later should be aware of the course drop limitation imposed by the Texas Legislature. Dropping this or any other course between the first day of class and the census date for the semester does not affect your 6-drop rule count. Dropping a course between the census date and the last day to drop a class for the semester will count as one of your 6 permitted drops. You should take this into consideration before dropping this or any other course. Visit Dropping and Withdrawing from Course Enrollment for more information.

Incomplete

A grade of "I" (incomplete) will be assigned only in extreme, verifiable EMERGENCY situations where a student is unable to complete a minor portion of the course work because of circumstances beyond the student's control, provided the student is passing the course.

Special Academic Accommodations

The University of Houston System 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 students with a disability. In accordance with Section 504 and ADA guidelines, each University within the System strives to provide reasonable academic adjustments or 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 your University's student disability services center.

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.

Counseling and Psychological Services

Counseling 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. https://uh.edu/caps/outreach/lets-talk/. Due to COVID-19, check the website for updates.

CoogsCARE

Encountering challenges during your semester? CoogsCARE is an online resource hub for students who may be seeking some sort of emergency assistance during their time at the University of Houston. Be it food or housing insecurity, transportation difficulties, or academic struggles – this website seeks to bridge the gap for campus and community resources that can have a direct on YOU being successful! Visit the website https://www.uh.edu/dsaes/coogscare/ to learn more about how you can take advantage of it today!

Campus Food Pantries

There are two food pantries on campus. Unfortunately, operations of both have been heavily impacted by the pandemic, so check the websites for current information.

Cougar Cupboard - https://uh.edu/dsaes/cougarcupboard/
The Cougar Cupboard is a partnership between the University of Houston and the Houston Food Bank. This food pantry is located and operated in UH Wellness, suite 1038 on the first floor of the Campus Recreation and Wellness Center. A plethora of fresh fruit, vegetables, frozen and refrigerated foods will be available during regular intervals for students. The Cougar Cupboard will be only open to all enrolled undergraduate and graduate students as part of the Food Scholarship Program within the Houston Food

Bank. This location is not open to the Houston public - to locate a market that is open to the public us the Food for Change Market Locator.

PEEPS Pantry - https://uh.edu/education/peepspantry/
PEEPS Pantry provides free food, toiletries and supplies to University of Houston students in financial need. We know students can struggle academically when they're worried about their next meal or bill. That's why we're here to help. The pantry, housed in the UH College of Education, is open to all currently enrolled UH students in any college and is supported by donations and volunteers.

PEEPS stands for Personal Early Educational Support, and the overall program is designed to assist students with their academics as well as their social and emotional well-being. The pantry is now open to all UH students facing food insecurity.

UH Compliance with Public Health Directives

University of Houston (UH) expects that students will comply with public health directives made by the university, the City of Houston, and the state of Texas. For general information and related protocols visit https://uh.edu/covid-19/information/.

To reduce the spread of COVID-19, the University requires face coverings on campus including classrooms for both faculty and students. Face coverings must cover your mouth and nose and be worn throughout the class session. A mask with a valve is not considered an adequate face covering and should not be used, as it can expel exhaled air, increasing the risk to others. Eating or drinking during class is discouraged and is not an excuse for removing the face covering for any extended length of time. For additional information on the use of face coverings, please see Face Covering FAQs. Failure to comply with the requirement to wear a face covering in class will result in your being asked to leave the classroom immediately and a disciplinary referral through the Dean of Students Office. Requests for accommodations relating to the face covering policy may be directed to the Center for Students with DisABILITIES (CSD).

The University of Houston requires face coverings for all students and employees while on-campus, in the following areas:

- Indoor public areas on campus, except where marked, even if you are alone. This includes all non-private office or residential spaces, such as lobbies, restrooms, classrooms, teaching and research laboratories, common spaces in residence halls, conference rooms, and break rooms.

- Outdoor spaces where six feet or more of physical distancing is difficult to reliably maintain.

Face coverings are not required in the following limited circumstances:

- When working alone in a single office

- When in your own residential space

- When engaging in physical activity outside

- When doing so poses a greater mental or physical health, safety or security risk

- While operating outdoor equipment if not appropriate from a safety standpoint

- When consuming food or drink

- When engaging in personal hygiene activities

Online Class Code of Conduct

Conduct in online classes is to be the SAME as in traditional face to face classes.

Your attire, language, and general disposition is to align with professional standards. Disruptive behavior and inappropriate conduct in Zoom or Teams or other web conferencing or online discussion sessions will result in disciplinary action as it *would in a face-to-face classroom. Offenders will be removed from class and UH IT will investigate any class disruption just as UH PD investigates class disruptions on campus.*

The following appears in the [Prohibited Conduct Section of the University Of Houston Student Code Of Conduct](#):

> **3.6. Disruptive Classroom Conduct** – Disruptive classroom conduct means engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities.
>
> Sanctions for students found in violation of the Prohibited Conduct Section of the Student Code of Conduct include suspension and expulsion.

In line with all course communications remaining within said course, you are NOT to share Zoom, Teams, other online conference session information in social groups such as GroupMe, Slack, or other applications. If you see others share such information or notice others exhibiting inappropriate behavior in a HyFlex or online classroom, report this to your Professor and to UH IT security@uh.edu.

We ask that you treat faculty, your peers, and guest speakers in the virtual classroom with the same level of professionalism and respect that you do in a face-to-face classroom.

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. Additional policies address absences related to [military service](#), [religious holy days](#), [pregnancy and related conditions](#), and [disability](#).