



ACCT 7320 | Introduction to Data Analytics in Accounting

Section: 13444 | Synchronous - On Campus Exams

Tu 05:30 PM-09:30 PM | University of Houston

Prerequisite(s): Graduate standing or acceptance into PPA program. This course introduces data preparation and analysis, enabling the student to: (a) begin the understanding of data analytics and (b) develop data analytics skills useful in the field of accounting.

GENERAL COURSE INFORMATION

Name: Jessie George

Department: Department of Accountancy & Taxation

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Office Hours

By appointment only. Office hours will be held via Zoom.

COURSE OBJECTIVES AND STUDENT LEARNING OUTCOMES

Course Learning Objectives

This course introduces data preparation and analysis, enabling the student to: (a) begin the understanding of data analytics and (b) develop data analytics skills useful in the field of accounting.

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. Develop simple data analytics 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 BBA Accounting Program Learning Goals: (a) capacity to record, analyze, and interpret financial and other information (mechanics/journal entry) and (d) capacity to recognize ethical and regulatory dilemmas

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

REQUIRED INSTRUCTIONAL MATERIALS

Textbooks

Data Analytics in Accounting an Integrated Approach Wiley Plus version by Dzusnin, Geerts and Lenk, 1st ed. Wiley

This textbook and the associated WileyPlus access are required for the class. It may be cheaper to purchase an access code directly from the publisher than from the UH bookstore.

You will be required to complete some administrative activities, like the syllabus quiz, before gaining access to the WileyPlus course. The link will be available on Canvas after those activities are complete. By following this process, you will access the Wiley Plus textbook through Canvas to complete the reading assignments. If you directly log onto Wiley Plus via the Wiley webpage (without going through Canvas), your completed

assignments will not be included in the course gradebook, and you will not receive credit for them.

Course Technology

The learning objectives for this course include a strong technological component. However, all the software is free for students. Information regarding how to download and access the software will be available on Canvas. If you do not use the correct version, you might be able to complete your assignment and/or I may not be able to open and grade your assignment.

- Office 365 (Word, Excel etc.) –This is free to download through the Office 365 icon in Access UH. You must use Excel 2021 or Excel in Office 365 to complete the Excel projects.
- Tableau
- Alteryx
- UiPath

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 (preferably a PC) with high-speed internet access, with a microphone and webcam (for office hours 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/>.

Warning to 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 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. I am unfamiliar with MACs, so if you choose to use a MAC device, you will be responsible for running the software and troubleshooting on your own, as I will be unable to assist you.

Course Delivery Technology

This course will use multiple technologies to deliver content to you and to assess your knowledge.

- Canvas – A learning management system used to post assignment details, submit assignments, read announcements, and provide collaborative opportunities.
- Zoom – This class will use Zoom for class meetings and office hours, and I recommend that you download the Zoom app. Since only registered users will be allowed into the sessions, you must complete the following steps:
 - You will need to register for a free zoom account using your official uh email address ending in @cougarnet.uh.edu. (<https://zoom.us/freesignup/>). This confirms your identity for me.
 - Your name should match exactly the name in the official UH roster which helps identify you.
 - [Zoom guide from UH IT](#)

COURSE SCHEDULE, ASSIGNMENTS, AND ASSESSMENTS

Week	Chapter	Wiley Plus Reading Assignments (Due before class)	Technology Assignment	Exams
Week 1	1 - Data and Analytics in the Accounting Profession	Chapter 1: Due June 3 at 5 pm.	Excel	
Week 2	2 - Foundational Data Analysis Skills	Chapter 2: Due June 10 at 5 pm.	Excel: Due June 13 at 11 pm.	
Week 3	3 - Motivations and Objectives for Data Analysis	Chapter 3: Due June 17 at 5 pm.	Tableau	
Week 4	4 - Planning Data and Analysis Strategies	Chapter 4: Due June 24 at 5 pm.	Tableau: Due June 27 at 11 pm.	
Week 5				Midterm Exam on July 1 at 5:30 pm
Week 6	5 - Analysis: Data Preparation	Chapter 5: Due July 8 at 5 pm.	Alteryx	
Week 7	6 - Analysis: Information Modeling	Chapter 6: Due July 15 at 5 pm.	Alteryx: Due July 18 at 11 pm.	
Week 8	7 - Analysis: Data Exploration	Chapter 7: Due July 22 at 5 pm.	UiPath	

Week	Chapter	Wiley Plus Reading Assignments (Due before class)	Technology Assignment	Exams
Week 9	8 - Interpreting Data Analysis Results	Chapter 8: Due July 29 at 5 pm.	UiPath	
Week 10	9 - Communicating Data Analysis Results 10 - Recent Data and Analyses Developments in Accounting	Chapter 9 & 10: Due Aug 5 at 5 pm.	UiPath Due Aug 8 at 11 pm.	
Week 11				Final Exam on August 12 at 5:30 pm

Assessment - Examinations

There will be a midterm exam and comprehensive final exam in class. The exam dates are listed within this syllabus.

All exams will be taken in person on paper during the scheduled class exam date and time. Detailed exam instructions regarding the room and other requirement material (such as student ID) will be posted on Canvas prior to the exam date. All exams are closed-note, closed-book.

Exams cover class discussions, videos, assigned reading, and other material posted on/ linked to Canvas whether or not we discuss them in class. The reading quizzes are to ensure you are learning the basic foundation material. You will apply that basic knowledge on the major exams which means the exam questions will be harder than the quiz questions. Use of specific software will not be covered in the 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 the teaching assistant in advance and make arrangements to take the regularly scheduled exam early.

Assessment - Reading Assignments

Each week there will be a reading assignment quiz in Wiley Plus 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 apply that basic knowledge on the major exams. To access these quizzes, go to Canvas > Weekly Modules. You have two attempts per quiz and the highest grade will be counted.

The quizzes are due 30 minutes before class starts.

Assessment - Software Modules

There are four software modules in this class: Excel, Tableau, Alteryx and UiPath. Each module will span multiple weeks and may contain multiple projects. Please see Canvas for the exact module availability dates and due dates.

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 the application's server, not the time on your computer, cell phone or watch. The cutoff time is 11:00.00 pm, not 11:00.01 or 11:00.59. Therefore, if your device says the time is 10:58pm, but the Canvas server has 11:00.01, your assignment is late and will not be accepted.

Details for all software projects will be posted on Canvas. Each module will take up to 20 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. You are expected to complete the assignments according to standards expected in an office environment including appropriate spelling, grammar, formatting, editing and timeliness.

Software projects grades will generally be posted two to three weeks after the due date, because all projects must be hand graded.

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. This includes being engaged during the class sessions with your webcam turned on so that we can visually engage with each other.

DISCUSSION AND LECTURE TOPICS

List of discussion/lecture topics

- Data and Analytics in the Accounting Profession
- Foundational Data Analysis Skills
- Motivations and Objectives for Data Analysis
- Planning Data and Analysis Strategies
- Analysis: Data Preparation
- Analysis: Information Modeling
- Analysis: Data Exploration
- Interpreting Data Analysis Results
- Communicating Data Analysis Results
- Recent Data and Analyses Developments in Accounting
- Use of Software: Excel, Tableau, Alteryx and UiPath

GRADING RUBRICS AND WEIGHTS

Activity	Points	%
Reading Assignments	100	10.0%
Midterm Exam	150	15.0%
Excel project	125	12.5%
Tableau project	125	12.5%
Alteryx project	125	12.5%
UiPath project	125	12.5%
Final Exam	250	25.0%
Total	1000	100.0%

Grading Scale	
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

I typically do not curve exams or assignments. However, I may provide limited opportunities to earn up to 10 points on your final exam throughout the semester. Information regarding extra credit opportunities will be posted on Canvas. The opportunity to earn extra credit is a privilege and can be revoked from the class or an individual student due to many reasons such as violations of academic integrity.

COURSE POLICIES AND PROCEDURES

Syllabus Changes

Please note that I may need to make modifications to the course syllabus and may do so at any time. Notice of such changes will be announced through Canvas.

Course Emails & Communications

Unless you have a personal matter to discuss, please post your questions to the Canvas 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. Make sure to keep your communications friendly and professional.

All students at UH have two UH email accounts: one ending in @uh.edu and one ending in @cougarnet.uh.edu. The @uh.edu address is an email alias that you most likely have forwarded to your personal email account. The @cougarnet.uh.edu address is an actual Exchange email account which each University of Houston current 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 UH IT Get Help page.

Canvas is configured to send Announcements only to your @cougarnet.uh.edu account. All email communications for this course will be sent to your @cougarnet.uh.edu, so you should check it daily.

There are two methods you can use to email me, so the message will not be caught in a spam filter and so I can validate the student's identity, which is needed for FERPA compliance. You should not use Gmail, Yahoo! or other personal email accounts to send emails to professors.

- Use your Office 365 @ cougarnet.uh.edu Exchange email account. My replies will go back to your CougarNet email account. Go to UH InfoTech to learn how to send email from your UH Office 365 account:
<https://uh.edu/infotech/services/office365/email/>
- Use the email within Canvas (Inbox on the left-global-menu). My replies will be in your Canvas Inbox.

Please make sure emails are detailed enough so that I can quickly respond to your request. The subject line should include a clear subject as well as your course name (ACCT XXXX –

Excel issue on step 3). I respond to most emails within 2 business days. However, I have limited ability to check my email and discussion board posts on the weekends.

Webcams

Access to a webcam is required for students participating remotely in this course. Webcams must be turned on during class sessions to ensure class participation.

Completed Assignments

All assignments for this course will be submitted electronically through Canvas unless otherwise instructed. Assignments must be submitted by the given deadline or special permission must be requested before the due date. Extensions will not be given beyond the next assignment except under extreme circumstances. Remember that the technology project may take longer to upload, so give yourself ample time to submit assignments prior to the deadline.

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 CougarByte. 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, AccessUH, and Canvas; 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.

UNIVERSITY POLICIES AND STUDENT SUPPORT RESOURCES

Mental Health and Wellness Resources

The University of Houston has a number of resources to support students' mental health and overall wellness, including [CoogsCARE](#) and the [UH Go App](#). [UH Counseling and Psychological Services \(CAPS\)](#) offers 24/7 mental health support for all students, addressing various concerns like stress, college adjustment and sadness. CAPS provides individual and couples counseling, group therapy, workshops and connections to other support services on and off- campus. For assistance visit uh.edu/caps, call 713-743-5454, or visit a [Let's Talk](#) location in-person or virtually. Let's Talk are daily, informal confidential consultations with CAPS therapists where no appointment or paperwork is needed.

Need Support Now? If you or someone you know is struggling or in crisis, help is available. Call CAPS crisis support 24/7 at 713-743-5454, or the National Suicide and Crisis Lifeline: call or text 988, or chat 988lifeline.org.

Title IX/Sexual Misconduct

Per the UHS Sexual Misconduct Policy, your instructor is a "responsible employee" for reporting purposes under Title IX regulations and state law and must report incidents of sexual misconduct (sexual harassment, non-consensual sexual contact, sexual assault, sexual exploitation, sexual intimidation, intimate partner violence, or stalking) about which they become aware to the Title IX office (known at UH as the Equal Opportunity Services office or "EOS"). Please know there are places on campus where you can make a report in confidence. You can find more information about resources on the UH [Title IX/Sexual Misconduct Resources page](#). Please note that you may also report concerns of discrimination based on your protected class identity to EOS.

Reasonable Academic Adjustments/Auxiliary Aids

The University of Houston is committed to providing an academic environment and educational programs that are accessible for its students. Any student with a disability who is experiencing barriers to learning, assessment or participation is encouraged to contact the Justin Dart, Jr. Student Accessibility Center (Dart Center) to learn more about academic accommodations and support that may be available to them. Students seeking academic accommodations will need to register with the Dart Center as soon as possible to ensure timely implementation of approved accommodations. Please contact the Dart Center by visiting the website: <https://uh.edu/accessibility/> calling (713) 743-5400, or emailing jdcenter@Central.UH.EDU.

The [Student Health Center](#) offers a Psychiatry Clinic for enrolled UH students. Call 713-743-5149 during clinic hours, Monday through Friday 8 a.m. - 4:30 p.m. to schedule an appointment.

The [A.D. Bruce Religion Center](#) offers spiritual support and a variety of programs centered on well-being.

The [Center for Student Advocacy and Community \(CSAC\)](#) is where you can go if you need help but don't know where to start. CSAC is a "home away from home" and serves as a [resource hub](#) to help you get the resources needed to support academic and personal success. Through our [Cougar Cupboard](#), all students can get up to 30 lbs of FREE groceries a week. Additionally, we provide 1:1 appointments to get you connected to on- and off-campus resources related to essential needs, safety and advocacy, and more. The [Cougar Closet](#) is a registered student organization advised by our office and offers free clothes to students so that all Coogs can feel good in their fit. We also host a series of cultural and community-based events that fosters social connection and helps the cougar community come closer together. Visit the CSAC homepage or follow us on Instagram: @uh_CSAC and @uhcupbrd. YOU belong here.

Women and Gender Resource Center

The mission of the [WGRC](#) is to advance the University of Houston and promote the success of all students, faculty, and staff through educating, empowering, and supporting the UH community. The WGRC suite is open to you. Stop by the office for a study space, to take a break, grab a snack, or check out one of the WGRC programs or resources. Stop by Student Center South room B12 (Basement floor near Starbucks and down the hall from Creation Station) from 9 am to 5 pm Monday through Friday.

Academic Honesty Policy

High ethical standards are critical to the integrity of any institution, and bear directly on the ultimate value of conferred degrees. All UH community members are expected to contribute to an atmosphere of the highest possible ethical standards. Maintaining such an atmosphere requires that any instances of academic dishonesty be recognized and addressed. The [UH Academic Honesty Policy](#) is designed to handle those instances with fairness to all parties involved: the students, the instructors, and the University itself. All students and faculty of the University of Houston are responsible for being familiar with this policy.

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.