

ACCT 3301-115, Data Analytics 1

Summer 2023

Texas A&M University-Central Texas

COURSE DATES, MODALITY, AND LOCATION

This course is a 100% online course from June 5, 2023 – July 28, 2023. Supplemental materials will be made available online through the A&M-Central Texas Canvas Learning Management System [<https://tamuct.instructure.com/>].

INSTRUCTOR AND CONTACT INFORMATION

Instructor: Dr. Ankita Singhvi

Email: a.singhvi@tamuct.edu

Office Hours: By appointment only

Student-Instructor Interaction:

For communication, please email me at a.singhvi@tamuct.edu. Should you write me an email, please mention your name and course title in the Subject line. I will try to get back to you within 24 hours during the week and within 36 hours during the weekend.

Please practice good communication skills. We will practice formal business communication emails so that you will develop good habits. Start out every email and/or discussionpost with the name of the person you are addressing and close with your name. Utilize spelling and grammar check to help you write better.

Mode of instruction and course access:

This is an “Online” course and uses the A&M-Central Texas Canvas Learning Management System extensively: [<https://tamuct.instructure.com/>] for audio lectures, supplemental materials (like readings and lecture PowerPoints), quizzes, exams, grade reporting, and assignment submissions. The instructions that follow in this syllabus will assist you with gaining access and technical support. Once you are in Canvas, *there is an icon on the left with a question mark surrounded by a circle (says Help when you hover over it) that will have additional Canvas resources if you are unfamiliar with the learningmanagement system itself.*

Student-Instructor interaction:

It is easiest to reach me via email, as I check it very frequently to say the least. I will most likely respond to email in no more than 24 hours if not traveling, and usually within a couple of hours.

Emergency Warning System for Texas A&M University-Central Texas

SAFEZONE. SafeZone provides a public safety application that gives you the ability to call for help with the push of a button. It also provides Texas A&M University-Central Texas the ability to communicate emergency information quickly via push notifications, email, and text messages. All students automatically receive email and text messages via their myCT accounts.

Downloading SafeZone allows access to push notifications and enables you to connect directly for help through the app.

You can download SafeZone from the app store and use your myCT credentials to log in. If you would like more information, you can visit the [SafeZone](http://www.safezoneapp.com) website [www.safezoneapp.com].

To register SafeZone on your phone, please follow these 3 easy steps:

1. Download the SafeZone App from your phone store using the link below:
 - [iPhone/iPad](https://apps.apple.com/app/safezone/id533054756): [<https://apps.apple.com/app/safezone/id533054756>]
 - [Android Phone / Tablet](https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp)
[<https://play.google.com/store/apps/details?id=com.criticalarc.safezoneapp>]
2. Launch the app and enter your myCT email address (e.g. {name}@tamuct.edu)
3. Complete your profile and accept the terms of service

COURSE INFORMATION

Course Overview and Description:

Course Overview:

The goal of this course is to introduce and develop the skills required for an analytics mindset in accounting. Students will be introduced to and learn to apply the concepts of data scrubbing, data preparation, data quality, descriptive data analysis, data manipulation, and data visualization using various data analytic tools to prepare reports and solve problems using statistical data analysis.

Course Description:

The combination of computerization and automation of many accounting tasks as well as the explosion of available data is changing the accounting profession. To address this, accountants are increasingly required to have an analytics mindset to perform their jobs. Building upon the fundamentals of accounting learned in prior courses, *Introduction to Data Analytics for Accounting* explores accounting concepts through the application of data analytics. We recognize students need to not only develop the skills to ask the right questions, but to learn how to use tools they may encounter in the workplace such as Excel® to examine and analyze data, and then effectively interpret results to make business decisions. This analytics mindset is crucial early in the study of accounting to meet the demands of today's accounting jobs.

Introduction to Data Analytics for Accounting provides a framework for developing a Data Analytics mindset we refer to as the **AMPS model**:

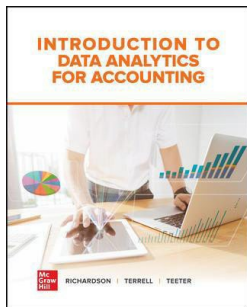
- Ask the Question (Chapter 1).
- Master the Data (Chapters 2–4).
- Perform the Analysis (Chapters 5–9).
- Share the Story (Chapter 10).

This model is used throughout the text in conjunction with the various types of analysis accountants need to perform. The labs follow this framework to reinforce the analytical process. Chapter 11 acts as a capstone, providing two projects applying the complete AMPS model. The first project guides students through analyzing Lending Club loans, while the second offers the framework for students to address their own accounting question.

Course Objective:

- Explain how data analytics affects business and accounting, including the skills an analytic-minded Accountant needs.
- Explain how data are organized in accounting information systems, stored in relational database as well as extracted, transformed and loaded.
- Utilize various data analytics approaches, including data reduction, regression, classification, and clustering.
- Utilize data visualization techniques to communicate results.
- Compare how data analytics is utilized in Management Accounting, Internal Audit, External Audit and Continuous Auditing.
- Apply data analytics in a Management Accounting, Internal Audit, External Audit or Continuous Auditing scenario.
- Evaluate data quality using KPIs.
- Create visualizations of financial statement data.
- Demonstrate the application of data analytics tools used in accounting for decision making.

Textbook(s) with Connect Access:



Introduction to Data Analytics for Accounting, McGraw-Hill, 2021.

ISBN: 978-1-26-406831-9

COURSE REQUIREMENTS

Course Requirements:

This course is made up of book chapters that are comprised of assignments, assessments, and labs to assist you in achieving the course and learning objectives/outcomes. Each week you will work on various combinations of assignments, activities, discussions, readings, research, etc., which will be made available to you on your canvas course.

Discussions:

There will be weekly discussions that you are expected to post on each week. Each post must be detailed, complete and include all details answering all questions posted. All discussion posts will be graded.

Connect Assignments and Chapter Labs:

There will be lab assignments throughout each chapter that will be due as per Connect. The number of lab assignments vary by chapter. You will be able to print them, work them out and

then submit them online. The correct answers will be available thru Canvas after the due date and time. You should use these to review/study for the Capstone Exercises. days). There is no make up for any lab exercises. I will not replace missing or incomplete labgrades.

Connect assignments have an auto graded part and a manual grading part. Connect will grade your work instantly after the due date and I will grade on Tuesday of the week homework is due. Kindly note that no late submissions are allowed unless extenuating circumstances arise.

Capstone Exercise:

There will be one Capstone exercise that will be accessed thru Canvas at the end of the semester. This capstone exercise is intended to let the students go through the entire data analysis process, start to finish. The idea is that the students operationalize the AMPS model by asking the question, finding and mastering the data, performing the analysis, and sharing the story. More details on canvas.

Grading Criteria Rubric and Conversion:

Students earn their course grades by completing scheduled assignments. There are no extra credit assignments for this course. To satisfactorily pass this course, students must complete each of the graded items listed below. Failure to submit appropriate documents for scoring in each category will result in a failing grade.

Course Element	Points
Discussions	200
Capstone Exercise	300
Connect Assignments and Chapter labs	500
Total	1000

Grade Percentage	Letter Grade
90.0 – 100 %	A
80.0 – 89.9 %	B
70.0 – 79.9 %	C
60.0 – 69.9 %	D
00.0 – 59.9 %	F

Posting of Grades:

Grades will be posted on the Canvas Grade book where students can monitor their status.

COURSE OUTLINE AND CALENDAR

Complete Course Calendar:

The following schedule is tentative. If changes are necessary, they will be announced on Canvas. It is your responsibility to learn of any changes announced by your instructor.

Date	Chapter	Assignments	Homework- Each week Discussion – Monday at noon. Connect labs – Sunday by midnight
Week – 1 6/5	Chapter 1	Using Data Analytics to Ask and Answer Accounting Questions	Discussion Due Connect Due
Week – 2 6/12	Chapter 2	Mastering the Data: An Introduction to Accounting Data	Discussion Due Connect Due
Week – 2 6/12	Chapter 3	Accounting Data: Data Types and How They are Used <i>2 chapters covered this week, please plan accordingly</i>	Discussion Due Connect Due
Week – 3 6/19	Chapter 4	Master the Data: Preparing Data for Analysis	Discussion Due Connect Due
Week – 3 6/19	Chapter 5	Perform the Analysis: Types of Data Analytics	Discussion Due Connect Due
Week – 4 6/26	Chapter 6	Perform the Analysis: Descriptive Analytics	Discussion Due Connect Due
Week – 5 7/3	Chapter 7	Perform the Analytics: Diagnostic Analytics <i>2 chapters covered this week, please plan accordingly</i>	Discussion Due Connect Due
Week – 5 7/3	Chapter 8	Perform the Analytics: Predictive Analysis	Discussion Due Connect Due
Week – 6	Chapter 9	Perform the Analytics: Prescriptive Analytics	Discussion Due

7/10			Connect Due
Week – 7 7/17	Chapter 10	Share the Story	Discussion Due Connect Due
Week – 7 7/17	Chapter 11	Using the AMPS Model to put it all Together: CapstoneProjects	Discussion Due
Week – 8 7/24		CAPSTONE DUE ON CANVAS [Signature assignment for AACSB, Assurance of learning]	

Important University Dates:

<https://www.tamuct.edu/registrar/academic-calendar.html>

Technology Requirements

This course will use the A&M-Central Texas Instructure Canvas learning management system. We strongly recommend the latest versions of Chrome, Firefox, Edge, or Safari browsers. Canvas will run on Windows, Mac, Linus, iOS, android, or any other device with a modern web browser. **Canvas no longer supports any version of Internet Explorer.**

Logon to A&M-Central Texas Canvas [<https://tamuct.instructure.com/>] or access Canvas through the TAMUCT Online link in myCT [<https://tamuct.onecampus.com/>] by clicking on the “TAMUCT Online Canvas” tile. You will then log in through our Microsoft portal.

Username: Your MyCT email address. Password: Your MyCT password

Canvas Support

Use the Canvas Help tab, located at the bottom of the left-hand menu, for issues with Canvas. You can search the support articles or use the Email, Call, or Chat buttons at the bottom of the support pop-up to contact the Canvas Help Desk.

For issues related to course content and requirements, contact your instructor.

Other Technology Support

For log-in problems, students should contact Help Desk Central, 24 hours a day, 7 days a week

Email: helpdesk@tamu.edu

Phone: (254) 519-5466

[Web Chat](http://hdc.tamu.edu): [<http://hdc.tamu.edu>]

Please let the support technician know you are an A&M-Central Texas student.

UNIVERSITY RESOURCES, PROCEDURES, AND GUIDELINES

Academic Accommodations

At Texas A&M University-Central Texas, we value an inclusive learning environment where every student has an equal chance to succeed and has the right to a barrier-free education. The Warrior Center for Student Success, Equity and Inclusion is responsible for ensuring that students with a disability receive equal access to the university’s programs, services and activities. If you believe you have a disability requiring reasonable accommodations, please contact the Office of Access and Inclusion, WH-212; or call (254) 501-5836. Any

information you provide is private and confidential and will be treated as such.

For more information, please visit our [Access & Inclusion](#) Canvas page (log-in required) [https://tamuct.instructure.com/courses/717]

Academic Integrity

Texas A&M University-Central Texas values the integrity of the academic enterprise and strives for the highest standards of academic conduct. A&M-Central Texas expects its students, faculty, and staff to support the adherence to high standards of personal and scholarly conduct to preserve the honor and integrity of the creative community. Any deviation by students from this expectation may result in a failing grade for the assignment and potentially a failing grade for the course. All academic misconduct concerns will be referred to the Office of Student Conduct. When in doubt on collaboration, citation, or any issue, please contact your instructor before taking a course of action.

For more [information regarding the student conduct process](#), [https://www.tamuct.edu/student-affairs/student-conduct.html].

If you know of potential honor violations by other students, you may [submit a referral](#), [https://cm.maxient.com/reporting.php?TAMUCentralTexas].

Drop Policy

If you discover that you need to drop this class, you must complete the [Drop Request](#) Dynamic Form through Warrior Web.

[https://federation.ngwebsolutions.com/sp/startSSO.ping?PartnerIdId=https://eis-prod.ec.tamuct.edu:443/samlSso&SpSessionAuthnAdapterId=tamuctDF&TargetResource=https%3a%2f%2fdynamicforms.ngwebsolutions.com%2fSubmit%2fStart%2f53b8369e-0502-4f36-be43-f02a4202f612].

Faculty cannot drop students; this is always the responsibility of the student. The Records and Admissions Office will provide a deadline on the Academic Calendar for which the form must be completed. Once you submit the completed form to the Records and Admissions Office, you must go into Warrior Web and confirm that you are no longer enrolled. If you still show as enrolled, FOLLOW-UP with the Records and Admissions Office immediately. You are to attend class until the procedure is complete to avoid penalty for absence. Should you miss the drop deadline or fail to follow the procedure, you will receive an F in the course, which may affect your financial aid and/or VA educational benefits.

Pregnant and/or Parenting Students Rights and Accommodations

A&M-Central Texas supports students who are pregnant, experiencing pregnancy-related conditions, and/or parenting. In accordance with requirements of [Title IX and related guidance from US Department of Education's Office of Civil Rights](#), the Associate Dean in the Division of Student Affairs, (254) 501-5909, can assist students who are pregnant, experiencing pregnancy-related conditions, and/or parenting by provide flexible and individualized reasonable accommodations. Students should seek out assistance as early in the pregnancy as possible through the [Pregnancy & Parenting webpage](#) [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. For more information, please visit [Student Affairs](#) [https://www.tamuct.edu/student-affairs/pregnant-and-parenting-students.html]. If you would like to read more about these [requirements and guidelines](#) online, please visit the website [http://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.pdf].

[Title IX of the Education Amendments Act of 1972](#) specifically prohibits discrimination against a student based on pregnancy, childbirth, false pregnancy, termination of pregnancy, or recovery from any of these conditions [https://www2.ed.gov/about/offices/list/ocr/docs/pregnancy.html].

Students experiencing any form of discrimination due to any of these conditions are encouraged to reach out to the Title IX Coordinator, 254.519.5716, titleix@tamuct.edu, Founders Hall 317B, or the Associate Dean of Student Affairs, 254.501.5909, Warrior Hall 105.

Title IX Rights and Reporting Responsibilities

A&M-Central Texas is committed to creating a safe and open learning environment for all students. If you or another student has experienced any form of gender discrimination or sexual misconduct, including sexual harassment, sexual assault, dating/domestic violence, and/or sex-based stalking, help and support are available. Our university strongly encourages all members of our campus community to report incidents and seek support for gender discrimination and sexual misconduct through the Title IX Office. You may contact the Title IX Office at 254.519.5716, titleix@tamuct.edu, Founders Hall 317B, or learn more by visiting the [Title IX webpage](https://www.tamuct.edu/compliance/titleix.html) [<https://www.tamuct.edu/compliance/titleix.html>].

Please be aware that that under [Title IX](#), [Texas Senate Bill 212](#), and [System Regulation 08.01.01](#), [<https://policies.tamus.edu/08-01-01.pdf>] all university employees are mandated reporters and are required to disclose information about suspected or alleged violations as listed above and defined in System Regulation 08.01.01. If the Title IX Office receives information about an incident, they will reach out to offer information about resources, rights, and procedural options as a member of the campus community. Although I have an obligation to report, you will, in most cases, control how your case will be handled. When working with the Title IX Office you will have access to resources and accommodations but also have the opportunity to express if you wish to move forward with an investigation. Our goal is to make sure you are aware of the options available to you as a student. Community members are not required to respond to this outreach.

If you or another student wishes to speak to a confidential employee who does not have this reporting responsibility, you can contact the [Student Wellness & Counseling Center](#), [<https://www.tamuct.edu/student-affairs/student-counseling.html>], 254.501.5955, or swacc@tamuct.edu, located in Warrior Hall Room 207L or the Student Support Advocate, 254.501.5978 or ssa@tamuct.edu, located in founder Hall Room 317D.

Tutoring and Success Coaching

Tutoring and success coaching services are available to all A&M-Central Texas students, both virtually and in-person.

To schedule tutoring sessions or view tutor availability, please contact Warriorcenter@tamuct.edu or visit Warrior Hall, 111.

If you have questions about these or other academic support services or are interested in becoming a tutor, please contact the Warrior Center for Student Success, Equity and Inclusion at (254) 501-5836, email us at WarriorCenter@tamuct.edu. You are welcome to visit the Warrior Center at Warrior Hall, suite 212.

Chat live with a remote tutor 24/7 for almost any subject from on your computer! Tutor.com is an online tutoring platform that enables A&M-Central Texas students to log in and receive online tutoring support at no additional cost. This tool provides tutoring in over 40 subject areas except writing support. Access Tutor.com through Canvas.

University Library & Archives

The University Library & Archives provides many services in support of research across campus and at a distance. We offer over 350 electronic databases containing approximately 631,525 eBooks and 75,149 journals, in addition to the 97,443 items in our print collection, which can be mailed to students who live more than 50 miles from campus. Research guides for each subject taught at A&M-Central Texas are available through our website to help students navigate these resources. On campus, the library offers technology including cameras, laptops, microphones, webcams, and

digital sound recorders.

Research assistance from a librarian is also available 24 hours a day through our online chat service, and at the reference desk when the library is open. Research sessions can be scheduled for more comprehensive assistance, and may take place virtually through WebEx, Microsoft Teams or in-person at the library. [Schedule an appointment here](https://tamuct.libcal.com/appointments) [https://tamuct.libcal.com/appointments]. Assistance may cover many topics, including how to find articles in peer-reviewed journals, how to cite resources, and how to piece together research for written assignments.

Our 27,000-square-foot facility on the A&M-Central Texas main campus includes student lounges, private study rooms, group workspaces, computer labs, family areas suitable for all ages, and many other features. Services such as interlibrary loan, TexShare, binding, and laminating are available. The library frequently offers workshops, tours, readings, and other events. For more information, please visit our [Library website](https://tamuct.libguides.com/index) [https://tamuct.libguides.com/index]

University Writing Center

University Writing Center: For the summer semesters, all University Writing Center (UWC) tutoring services are entirely online. The hours of operation are from 10:00 a.m.-4:00 p.m. Monday through Thursday with additional hours Monday through Thursday nights from 6:00-9:00 p.m. The UWC is also offering hours from 12:00-3:00 p.m. on Saturdays.

Tutors are prepared to help writers of all levels and abilities at any stage of the writing process. While tutors will not write, edit, or grade papers, they will assist students in developing more effective composing practices. By providing a practice audience for students' ideas and writing, our tutors highlight the ways in which they read and interpret students' texts, offering guidance and support throughout the various stages of the writing process. In addition, students may work independently in the UWC by checking out a laptop that runs the Microsoft Office suite and connects to WIFI, or by consulting our resources on writing, including all of the relevant style guides. Whether you need help brainstorming ideas, organizing an essay, proofreading, understanding proper citation practices, or just want a quiet place to work, the UWC is here to help!

Students may arrange a one-to-one session with a trained and experienced writing tutor by making an appointment via [WOnline](https://tamuct.mywconline.com/) [https://tamuct.mywconline.com/]. In addition, you can email Dr. Bruce Bowles Jr. at bruce.bowles@tamuct.edu if you have any questions about the UWC, need any assistance with scheduling, or would like to schedule a recurring appointment with your favorite tutor.

OTHER POLICY STATEMENTS

A Note about Sexual Violence at A&M-Central Texas

Sexual violence is a serious safety, social justice, and public health issue. The university offers support for anyone struggling with these issues. University faculty are mandated reporters, so if someone discloses that they were sexually assaulted (or a victim of Domestic/Dating Violence or Stalking) while a student at TAMUCT, faculty members are required to inform the Title IX Office. If you want to discuss any of these issues confidentially, you can do so through Student Wellness and Counseling (254-501-5955) located on the second floor of Warrior Hall (207L).

Sexual violence can occur on our campus because predators often feel emboldened, and victims often feel silenced or shamed. It is incumbent on ALL of us to find ways to actively create environments that tell predators we don't agree with their behaviors and tell survivors we will support them. Your actions matter. Don't be a bystander; be an agent of change. For additional information on campus policy and resources visit

the [Title IX webpage](https://www.tamuct.edu/compliance/titleix.html) [https://www.tamuct.edu/compliance/titleix.html].

Behavioral Intervention

Texas A&M University-Central Texas cares about the safety, health, and well-being of its students, faculty, staff, and community. If you are aware of individuals for whom you have a concern, please make a referral to the Behavioral Intervention Team. Referring your concern shows you care. You can complete the [referral](#) online

[https://cm.maxient.com/reporting.php?TAMUCentralTexas].

Anonymous referrals are accepted. Please see the [Behavioral Intervention Team](#) website for more information [https://www.tamuct.edu/bit]. If a person's behavior poses an imminent threat to you or another, contact 911 or A&M-Central Texas University Police at 254-501-5805.