



UT Tyler
THE UNIVERSITY OF TEXAS AT TYLER

SOULES COLLEGE OF BUSINESS

Spring 2025

Course number:	ACCT 5391
Course title:	Data Analytics for Accounting
Course format:	Face-to-face
Instructor:	Sai Harsha Katuri, Ph.D. Assistant Professor of Accounting
Office:	Soules College of Business, 350.06
Phone:	903-565-5893
E-mail:	skaturi@uttyler.edu (Preferred method of contact)
Class time:	6:00 pm - 8:45 pm on Wednesdays
Location:	COB 121
Office hours:	Monday and Wednesday, 1:00 p.m. to 4:00 p.m.; other times by appointment. Virtual office hours are available via Zoom.
Teaching method:	Lectures, class discussions, projects and analytical exercises
Prerequisites	ACCT 4391 and admission to the Master of Science in Professional Accountancy (MSPA) program or COSC 3333 and admission to the Master of Science in Finance program or consent of MSPA program director.

1 Course overview

In today's data-driven world, the ability to analyze and interpret vast amounts of information is paramount. This comprehensive course, "Data Analytics for Accounting," is designed to provide a broad understanding of the multifaceted field of data analytics. The course covers essential topics ranging from an overview of data analytics to practical applications in accounting. Beginning with a foundational understanding of data analytics, you will explore the intricacies of data acquisition, dimensional data modeling, and data

extraction, transformation, and loading (ETL). Then, you will delve into advanced techniques such as slicing and dicing, data visualization, and creating reports and dashboards.

As a part of the course, you must complete a project that will provide hands-on experience and facilitate a deeper understanding of the concepts taught. Emphasizing high-level concepts, this course offers a wide breadth of knowledge, equipping you with the essential skills and understanding needed to excel in the ever-evolving field of data analytics.

2 Student Learning Outcomes

The course aims to provide you with a comprehensive understanding of data analytics and hands-on experience using Alteryx. By the end of the course, you should be able to apply these concepts and techniques to real-world problems and make informed decisions based on data analysis. On successful completion of the course, you will be able to:

- Understand the fundamental concepts and importance of data analytics. Recognize the role of data analytics in various industries. Identify the key tools and platforms, with a focus on Alteryx.
- Learn the methods of data collection from various sources. Understand data quality and preparation using Alteryx. Recognize the ethical considerations in data acquisition.
- Understand the principles of dimensional data modeling. Create and manipulate dimensional models using Alteryx. Analyze the role of dimensional data in analytics.
- Learn the ETL process and its importance. Perform data extraction, transformation, and loading using Alteryx. Understand the challenges and solutions in ETL.
- Understand the concepts of slicing and dicing in data analysis. Apply slicing and dicing techniques using Alteryx. Analyze multidimensional data effectively.
- Learn the principles of data visualization. Create compelling visualizations using Alteryx. Interpret and communicate findings through visual means.
- Understand the importance of reporting in data analytics. Design and create interactive dashboards using Alteryx.

3 Course Materials

3.1 Canvas

- Lecture notes and slides will be posted on Canvas
- Supplementary videos and links to additional videos will be posted on Canvas
- Class announcements will be sent via Canvas, and you are responsible for reading these announcements (please make sure your Canvas settings are enabled for receiving emails)

3.2 Recommended Textbooks and Readings

1. Data and Analytics in Accounting: An Integrated Approach, 1st Edition - Ann C. Dzurinin, Guido Geerts, Margarita Lenk ISBN: 978-1-119-72315-8

3.3 Other Useful Resources

- Link to create a student account <https://offers.sheerid.com/alteryx/student/>
 - You need to verify before getting a license
- Required minimum system requirements to install Alteryx
 - <https://help.alteryx.com/20231/designer/system-requirements>
- Link to Alteryx certifications
 - <https://community.alteryx.com/t5/Certification/bd-p/product-certification>
- Videos and interactive lessons offered by Alteryx
 - <https://community.alteryx.com/t5/Maveryx-Academy/ct-p/alteryx-academy>
 - Check their learning paths and Weekly challenges
- More links will be provided during the classes

3.4 Software requirements

Throughout this course, we will utilize Alteryx Cloud, a leading data analytics platform, as a central tool for various assignments and projects.

4 Classroom policies

- Class starts promptly at the assigned time. If you have a problem that prevents you from arriving on time, please inform me as soon as possible. If this is a continuing issue, please select a seat near the entrance to minimize the disruptions to the classroom.
- Inform me in advance if you must leave the class before the scheduled ending time.
- Electronic devices (cell phones, pagers, iPods, etc.) must be deactivated during class. You may use your computer in class, but texting and surfing the internet are prohibited.
- Courtesy to the instructor and fellow students is expected. Open discussion is encouraged in the classroom, but derogatory remarks and profanity will not be allowed.
- Dishonesty will not be tolerated in this class. Violations of accepted standards of conduct will result in the imposition of the penalties the University allows.
- In an accounting class, missing just one class can cause you to fall behind! If you are absent, you must obtain materials and class notes. Lengthy instructions will not be repeated on a one-to-one basis.

4.1 Academic dishonesty statement

The faculty expects high responsibility and academic honesty from its students. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, a student must demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes, but is not limited to, statements acts or omissions related to applications for enrollment of the award of a degree, and/or the submission, as one's own work of material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.

University regulations require the instructor to report all suspected cases of academic dishonesty to the Dean of Students for disciplinary action. In the event disciplinary measures are imposed on the student, it becomes part of the student's official school records. Also please note that the handbook obligates you to report all observed cases of academic dishonesty to the instructor.

5 Content outline and schedule

	Week starting	Topic
1	13-Jan	Alteryx Boot Camp 1
2	20-Jan	Alteryx Boot Camp 2
3	27-Jan	1. Data and Analytics in the Accounting Profession
4	3-Feb	2. Foundational Data Analysis Skills
5	10-Feb	3. Motivations and Objectives for Data Analysis
6	17-Feb	4. Planning Data and Analysis Strategies
7	24-Feb	5. Analysis: Data Preparation
8	3-Mar	6. Analysis: Information Modeling
9	10-Mar	7. Analysis: Data Exploration
10	17-Mar	Spring break
11	24-Mar	8. Interpreting Data Analysis Results
12	31-Mar	9. Communicating Data Analysis Results
13	7-Apr	10. Recent Data and Analyses Developments in Accounting
14	14-Apr	Project Presentation (<i>Exact time and venue to be announced</i>)
15	21-Apr	Review Week
16	28-Apr	Exam (<i>Administered as per UTT final exam schedule TBA</i>)

6 Student evaluation

A student's grade for the class will be based on exam performance, project assignments, and class participation. Below are the weights for the different components that comprise your grade in class.

1. Certifications	40%
<i>MC – Core – General knowledge</i>	<i>10</i>
<i>MC – Core – Data Preparation</i>	<i>10</i>
<i>MC – Core – Data Manipulation</i>	<i>10</i>
<i>MC – Core – Data Transformation</i>	<i>10</i>
2. Project (group)	20%
3. Final Exam	20%
5. Class participation	20%

6.1 Grading scale

Weighted Total Score	Grade
Greater than 90%	A
80% to less than 90%	B
70% to less than 80%	C
60% to less than 70%	D
Less than 60%	F

6.2 Certifications

In this course, we will explore the powerful data analytics capabilities of Alteryx, a leading platform used by professionals in accounting, finance, and business intelligence. As part of your evaluation, you must take the Alteryx Designer Core certification exams at no cost. You will have to clear the four micro-credentials. ***The deadline for completing these certifications will be announced in the class. credentials.***

6.3 Project

As a vital component of this course, you will engage in a group project (*3 students*), allowing for collaborative exploration and implementation of a chosen idea. Each group will select a concept and work together to bring it to fruition. You will prepare comprehensive documentation of the project, which is a mandatory requirement. This documentation will serve as a tangible record of the project's development and outcome. Furthermore, you will have the opportunity to present your project to the entire school during a poster session. You will also create a video summary of the project, offering a visual and concise overview of the project's key elements.

Finally, the completed project, along with all the deliverables, will be uploaded to GitHub and linked to each student's academic portfolio website. This integration ensures that the project is not only a valuable learning experience within the course but also a showcase of your skills and accomplishments that can be shared with future employers and academic pursuits. Following the completion of the project, you will be responsible for submitting a detailed report that outlines the individual contributions of each group member. Group members will be awarded marks based on their individual contributions. More details on deliverables and grading will be shared later.

6.4 Final exam

There will be a final examination after the course, designed to assess the student's comprehension and mastery of the theoretical concepts taught throughout the class. This examination will serve as a critical component of the overall evaluation, reflecting the students' ability to synthesize and apply the knowledge they have acquired. The specific format of the exam, as well as the precise date on which it will be administered, will be formally announced in due course. Students are encouraged to prepare diligently, ensuring they are well-versed in the material, as the exam will be comprehensive and require a deep understanding of the subject matter.

- You must work independently and cannot work with others (including current or former students) when taking the exam.
- The exam will be administered at a pre-determined time. If you are unable to take an examination at the scheduled time for a valid reason, you must let me know at least one week before the examination period begins.
- If you miss the examination without informing me before the examination and/or without a legitimate reason, you will receive a score of zero for the examination.
- Dispute Policy: If you wish to dispute the grade assigned to a quiz or an exam, you must do so IN WRITING within two weeks after the grades have been posted. You must include a specific rationale for why your answer is correct.

6.5 Policies

- No make-up exams (except for documented medical or family emergencies) will be offered, nor will any changes be made to the Final Exam schedule, except as permitted by university rules.
- ***No extra credit assignments will be offered as it will be unfair to other students.***
- You are responsible for sharing your certification completion details with the instructor. ***Please forward the mail with the exam scores distribution on time. I will send an acknowledgment email.***

7 Student Resources, University Policies, and Additional Information

Links will be shared on Canvas.

Academic Integrity Guidelines

Each student has an obligation to act with honesty and integrity, and to respect the rights of others in carrying out all academic assignments. A student may be found to have violated this obligation and to have engaged in academic dishonesty if during or in connection with any academic evaluation, he or she:

1. Engages in any form of academic deceit;
2. Refers to materials or sources or employs devices (e.g., audio recorders, crib sheets, calculators, solution manuals, or commercial research services) not authorized by the instructor for use during the academic evaluation;
3. Possesses, buys, sells, obtains, or uses, without appropriate authorization, a copy of any materials intended to be used for academic evaluation in advance of its administration;
4. Acts as a substitute for another person in any academic evaluation;
5. Uses a substitute in any academic evaluation;
6. Depends on the aid of others to the extent that the work is not representative of the student's abilities, knowing or having good reason to believe that this aid is not authorized by the instructor.
7. Provides inappropriate aid to another person, knowing or having good reason to believe the aid is not authorized by the instructor;
8. Engages in plagiarism;
9. Permits his or her work to be submitted by another person without the instructor's authorization; or attempts to influence or change any academic evaluation or record for reasons having no relevance to class achievement.

Any student who is found to have violated these academic integrity guidelines will, at a minimum, receive a grade of zero on the assignment and at a maximum disciplined according to the University's guidelines.

By signing this document, I verify that I have read and understand these academic integrity guidelines as it applies to the exams and assignments. I will act with integrity during all course examinations and in the preparation of my assignments. I will seek the help of the instructor and/or the teaching assistant (and not the solutions of other students in the course) if I need help.

Printed Name: _____

Signature: _____

Date: _____

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PLEASE COMPLETE, SIGN AND RETURN TO INSTRUCTOR BY SUBMITTING IN CANVAS

FINAL GRADES

As stated in the syllabus, my final grade will be calculated as follows:

EVALUATION:

1. The student's grade for the semester will determined by performance on the following
– all course work is to be done individually unless otherwise stated.

1. Certifications	40%
<i>MC – Core – General knowledge</i>	<i>10</i>
<i>MC – Core – Data Preparation</i>	<i>10</i>
<i>MC – Core – Data Manipulation</i>	<i>10</i>
<i>MC – Core – Data Transformation</i>	<i>10</i>
2. Project (group)	20%
3. Final Exam	20%
4. Class participation	20%

2. Grading scale:

Weighted Total Score	Grade
Greater than 90%	A
80% to less than 90%	B
70% to less than 80%	C
60% to less than 70%	D
Less than 60%	F

NOTE: Extra-credit assignments will not be available on an individual basis—no exceptions. Don't ask.

Canvas

Course materials are available on [Canvas](#). Announcements, grades, lecture slides, case projects, assignments, and activities are posted on Canvas. You should check Canvas regularly for updates. You are responsible for meeting deadlines and retrieving any information from Canvas. Grades posted on Canvas throughout the semester are individual grades for that assignment only and may **not be weighted correctly** but are posted for your review.

By signing this document, I verify that I have read and understand how my final grade will be calculated for this course. I also understand that individual grades posted in Canvas may not be weighted correctly and my final grade for the course will be weighted as stated in the Evaluation section of the syllabus and above.

Printed Name: _____

Signature: _____

Date: _____

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