

ACCT 3734 - Data Analytics for Accounting

Fall 2026 Syllabus, Section A01, CRN 43703,

Credit hours: 3

Instructor

Yiyang Zhang

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Public Instructor Information

Instructor Title: Associate Professor and Lariccia Family Endowed Faculty Fellow

Instructor Professional Qualifications: Ph. D.

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Course Description

3734. Data Analytics for Accounting. Course emphasis is on knowledge and skills to collect, manage, and analyze extremely large volumes of data in various formats from numerous sources in accounting domain. Focus will be given to the following: dataset structure, data queries, database and enterprise system architecture, database security, database knowledge through data mining, data quality, data visualization, advanced data modeling, accounting data sampling and distribution, and fraud examination through data analytics. The course includes a number of hands-on exercises, Tableau/Alteryx. Prereq.: BUS 3700 (C or better), 2.5 GPA. 3 s.h.

This course emphasizes the knowledge and skills required to collect, manage, and analyze extremely large volumes of accounting-related data from various sources and in multiple formats. Topics covered include dataset structures, data queries, database and enterprise system architecture, database security, data mining, data quality, data visualization, data parsing, accounting data sampling and distribution, and fraud examination through data analytics. The course also includes hands-on exercises designed to provide practical experience with data analytics tools, including Tableau and Alteryx.

Course Readings

Group	Title	Author	ISBN
Choose One			

No textbook needed

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Tentative Course Schedule (Subject to Change)

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24		• Introduction to Syllabus & Course Design • Introduction to data • Introduction to dataset • Introduction to database • Introduction to Tableau and Alteryx	Quiz 1 is due by the end of Sunday (8/30)
8/31	• Case Study 1 Walk through	• Relational Database design • Database normalization (1NF, 2NF, and 3NF)	Quiz 2 is due by the end of Sunday (9/6) Case study 1 is due by the end of Sunday (9/6)



9/7	• Case Study 2 Walk through	• Database merging from different data sources (e.g., cross-sectional, time series, and panel datasets)	Quiz 3 is due by the end of Sunday (9/13) Case study 2 is due by the end of Sunday (9/13)
9/14	• Case Study 3 Walk through	• Variable creation (Continuous vs. Dichotomous) • Introduction to data querying o Data filtering o Data sorting o Data grouping o Data Visualization o Tableau Dashboard view	Quiz 4 is due by the end of Sunday (9/20) Case study 3 is due by the end of Sunday (9/20)
9/21	• Case Study 4 Walk through	• Introduction to Tax Reallocation • Data Parsing	Quiz 5 is due by the end of Sunday (9/27) Case study 4 is due by the end of Sunday (9/27)
9/28	Case Study 5 Walk through	• Descriptive Statistics • Sampling, Distribution, and Confidence interval • Outlier detection	Quiz 6 is due by the end of Sunday (10/4) Case study 5 is due by the end of Sunday (10/4)
10/5	• Case Study 6 Walk through	• Hypothesis testing	Case study 6 is due by the end of Friday (10/9) Final Exam is due by the end of Friday (10/9)

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.