

East Texas A&M University

College of Business

Department of Accounting, Finance, Economics & Business Law

Introduction to Accounting Analytics — ACCT 350 (Section 01W, Online)

Fall 2026

Instructor: Dr. Chu Chen, CMA

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Office Hours: M & W 12:30–1:45 p.m. online via Zoom (link posted in D2L); M & W 3:15–4:15 p.m. face-to-face, Commerce office 314; or by appointment.

****Email subject should begin with "ACCT 350." Emails are usually answered within one business day (Monday–Friday).*

Course Description

This course develops foundational skills in data preparation, visualization, and interpretation for decision-making by accountants. It provides a fundamental understanding of data extraction, transformation, and loading, with an emphasis on data analysis and visualization using Excel, Power BI, and SQL. Students learn to frame accounting questions, prepare and document data, perform descriptive, diagnostic, predictive, and prescriptive analysis, and communicate results to decision makers.

Course Materials

No textbook is required.

This is a textbook-free course. All required readings, guided analysis steps, datasets, reference sheets, and assignments are provided in D2L and were developed for this course. You will use free, cross-platform software; no publisher access code is required.

Optional / Recommended Text:

Introduction to Data Analytics for Accounting, 2026 release, by Richardson, Terrell, and Teeter. McGraw Hill. ISBN 9781264474035.

This text is recommended only; it is not required and is not needed to complete any graded work. Students who want an additional reference may use it.

Required Software (all free):

- Microsoft Excel (available to ETAMU students through Microsoft 365).
- Microsoft Power BI Desktop (Windows) or Power BI Service in a browser. Mac users should follow the Mac/Power BI guide posted in D2L.
- DB Browser for SQLite (free, Windows/Mac) with the course database provided in D2L.

College of Business Student Learning Outcomes

1. Students will demonstrate proficiency in spoken communications by delivering clear and well-structured business presentations.
2. Students will demonstrate proficiency in written communications by creating clear and well-structured business documents.
3. Students will identify and evaluate ethical business issues.
4. Students will identify and evaluate global business challenges.
5. Students will be analytical problem solvers in business environments.

COB Student Learning Outcomes (SLOs)	Course Outcomes — After successfully completing this course, students will be able to:	Measurement Methods (Outcome Assessments)
1, 2, 3, 5	• Frame accounting and audit questions that can be answered with data (AMPS model). • Prepare, clean, and document accounting data for analysis. • Perform descriptive, diagnostic, predictive, and prescriptive analysis using Excel, Power BI, and SQL. • Communicate results through memos, dashboards, and a recorded presentation, including the responsible use of AI.	• Homework and lab assignments • Project 1 and practical assessment • Exam 1 • Capstone report, dashboard, and presentation

Course Embedded Objectives

Upon satisfactory completion of this course, the student will be able to:

- Frame accounting and audit questions that can be answered with data (the AMPS model: Ask, Master, Perform, Share).
- Understand data types used in accounting data and how the data is obtained, and prepare and document data for analysis.
- Differentiate among the four types of analysis: descriptive, diagnostic, predictive, and prescriptive.
- Use Excel, Power BI, and SQL to perform the four types of analysis on a variety of accounting data.
- Assess best practices for sharing and communicating the data story through visualizations, memos, and dashboards, including the responsible use of AI.

Online Course Policies

1. This course is delivered online through D2L. Each week has a module that tells you what to read, which demo or animation to watch, which guided steps to complete, where to post discussion work, and what to submit. Follow the weekly module order and ask questions before the deadline.
2. Communicate with civility, respect, and professionalism in email, D2L discussions, and Zoom sessions.
3. Fair and ethical behavior: please do not request special exceptions. All students are graded with equality and fairness; the grade reflects only points earned.
4. You need reliable internet, a computer capable of running Excel, Power BI, and DB Browser for SQLite. Technical problems are not automatic extensions—begin each week early enough to contact support before a deadline.
5. Grades and announcements are posted in D2L. Check D2L and your myLeo (ETAMU) email frequently every week.

Student Responsibilities

1. Read assigned material and complete guided steps on schedule.
2. Complete all homework, labs, and project work on time; late work follows the policy below.
3. Prepare for online exams and the practical assessment.
4. Participate in all required discussions and peer reviews.

5. Check D2L and myLeo email frequently and complete individual work independently unless collaboration is specifically allowed.

EXAMS, COURSEWORK, AND ASSESSMENT

The course grade is composed of the following:

Component	Weight
Participation and engagement (introduction paper, discussions, self-checks, peer review)	5%
Homework assignments (HW 1–4)	10%
Lab assignments (Labs 1–4: Excel, Power BI, SQL)	20%
Exam 1 (Weeks 1–5)	15%
Practical analytics assessment	15%
Project 1 (data cleaning and diagnostic analysis)	15%
Capstone project + recorded presentation	20%
Total	100%

Homework, and labs are completed and submitted in D2L. Your grades are maintained in D2L.

Late work — Unless extenuating circumstances exist, late work is not accepted. Extenuating circumstances do NOT include forgetting, technical difficulties, or running out of time.

Documentation must be provided in a timely manner. A 30% late penalty may apply even if an extenuating circumstance exists.

GRADE CONVERSION

There is no grade curve and no extra-credit assignments.

89.5% or above	A
79.5% – 89.4%	B
69.5% – 79.4%	C
59.5% – 69.4%	D
59.4% or below	F

ASSESSMENTS

Participation and Engagement

Participation is measured through online engagement, including the introduction paper completed during orientation, discussion posts and replies, self-check completion, and peer review. It counts toward the 5% participation and engagement grade.

Homework (HW 1–4)

Short applied assignments that build the AMPS workflow: framing accounting questions, building a data dictionary with SQL queries, statistical analysis of an audit dataset, and scenario analysis. Submitted as memos and workbooks in D2L.

Lab Assignments (Labs 1–4)

Hands-on tool assignments in Excel, Power BI, and SQL: Lab 1, Trial Balance with PivotTable Analysis; Lab 2, Accounting Dashboard; Lab 3, Audit Analytics with Benford's Law; and Lab 4, Regression/Prediction Memo. Each lab has a rubric in D2L.

Project 1 — Data Cleaning and Diagnostic Analysis

An individual project in which you clean a messy accounting dataset, document every change in a cleaning log, produce descriptive summaries, diagnose an unusual pattern, and write a memo to a controller. Assigned Week 5; due Week 10.

Exams

One open-resource, mixed-format online exam (Exam 1) in D2L (about 70% multiple choice and 30% applied written response), covering Weeks 1–5 and available during a stated window. The second half of the course is assessed through the labs, Project 1, the practical assessment, and the capstone rather than a second exam.

Practical Analytics Assessment

An individual, timed applied assessment during Week 15: you import an unfamiliar transaction file, summarize it, identify exceptions, build one visualization, and write a concise interpretation. AI tools and collaboration are not permitted for this assessment.

Capstone Project + Recorded Presentation

The capstone applies the full AMPS process to an accounting question you choose from an approved list. Deliverables are a 4–6 page report, a Power BI or Excel dashboard, a 5–7 minute recorded presentation, and peer Q&A. Milestones: released Week 10, proposal/data check Week 14, analysis check and final submission during Weeks 15–16.

Learning Aids

Weekly readings, guided analysis steps, reference sheets (SQL, Power BI, statistics, Benford's Law, and more), and interactive concept animations are provided in D2L to support your work.

TENTATIVE COURSE SCHEDULE — Fall 2026 Online

University classes begin Thursday, August 20; the online orientation module opens August 20–23. Regular online modules run Monday–Sunday beginning Monday, August 24. The University

is closed Monday, September 7 (Labor Day). Fall Break is Thursday, October 8. Thanksgiving Break begins Wednesday, November 25. The last class day is Friday, December 4; final exam week runs Saturday, December 5–Friday, December 11. Unless D2L states otherwise, online submissions are due by 11:59 p.m. Central Time on the listed date.

Week	Dates	Module Focus	Assignment / Due Date
Orientation	Thu Aug. 20– Sun Aug. 23	Course start; syllabus; D2L and software setup	Tech-setup confirmation and introduction paper due Sun Aug. 23
1	Mon Aug. 24– Sun Aug. 30	Analytics mindset; AMPS model; framing accounting questions	HW 1 due Sun Aug. 30
2	Mon Aug. 31– Sun Sep. 6	Excel foundations: tables, formulas, PivotTables, data audit controls	HW 1 peer reply due Sun Sep. 6
3	Mon Sep. 7– Sun Sep. 13	Accounting data sources: GL, AR, AP, inventory, payroll, financial statements; XBRL (Labor Day Mon Sep. 7 – University Closed)	Lab 1: Trial Balance with PivotTable Analysis due Sun Sep. 13
4	Mon Sep. 14– Sun Sep. 20	Data types, data dictionaries; SQL fundamentals; intro to Power BI	HW 2 due Sun Sep. 20
5	Mon Sep. 21– Sun Sep. 27	Data preparation: cleaning, joining, missing values, duplicates, documentation	Project 1 assigned; cleaning-log starter due Sun Sep. 27
6	Mon Sep. 28– Sun Oct. 4	Descriptive analytics: ratios, trends, horizontal/vertical analysis	EXAM 1 (Weeks 1–5) window closes Sun Oct. 4
7	Mon Oct. 5– Sun Oct. 11	Visualization preview and Project 1 planning (Fall Break Thu Oct. 8)	Light Project 1 checkpoint due Sun Oct. 11
8	Mon Oct. 12– Sun Oct. 18	Visualization and dashboards; diagnostic-analytics bridge	Lab 2: Accounting Dashboard due Sun Oct. 18
9	Mon Oct. 19– Sun Oct. 25	Diagnostic analytics; audit analytics begins	Lab 3: Audit Analytics assigned; Project 1 work week
10	Mon Oct. 26– Sun Nov. 1	Audit analytics and internal controls; Benford's Law	Project 1 due Sun Nov. 1; Capstone released
11	Mon Nov. 2– Sun Nov. 8	Statistical thinking: distributions, outliers, correlation, regression	Lab 3: Audit Analytics and HW 3 due Sun Nov. 8
12	Mon Nov. 9– Sun Nov. 15	Predictive analytics: classification, regression, prediction	Lab 4: Regression/Prediction due Sun Nov. 15
13	Mon Nov. 16– Sun Nov. 22	Predictive accounting applications: allowance/CECL, cost behavior, forecasting	HW 4 (scenario analysis) due Sun Nov. 22
14	Mon Nov. 23– Sun Nov. 29	Prescriptive analytics preview; capstone planning (Thanksgiving Break begins Wed Nov. 25)	Capstone proposal / data check due Sun Nov. 29
15	Mon Nov. 30–	Prescriptive analytics;	Capstone analysis check due

	Fri Dec. 4	communication; practical assessment; capstone revision	Wed Dec. 2; PRACTICAL ASSESSMENT window Tue Dec. 1–Fri Dec. 4
Finals	Sat Dec. 5–Fri Dec. 11	Final capstone submission and peer review	CAPSTONE report, dashboard, and recording due Wed Dec. 9; peer questions Thu Dec. 10; replies Fri Dec. 11

Note: THIS SYLLABUS IS SUBJECT TO CHANGE AS NEEDED TO MEET THE OBJECTIVES OF THE COURSE OR TO AID IN COURSE ADMINISTRATION AT THE DISCRETION OF THE INSTRUCTOR.

CPA Exam Candidates — State of Texas

Candidates who plan to take the CPA Exam or become certified in Texas should review the Texas State Board of Public Accountancy's current requirements. Effective August 1, 2026, Texas recognizes Pathway A and Pathway B, which have different education and experience requirements. For the latest CPA Exam eligibility and certification information, visit <https://www.tsbpa.texas.gov/news/new-pathway-for-cpa-exam-and-certification/>.

University Policies and Procedures

Academic Honesty Policy

The College of Business at East Texas A&M University strives to be recognized as a community with legal, ethical, and moral principles and to practice professionalism in all that we do. Failure to abide by these principles will result in sanctions up to and including dismissal. Sanctionable activities include illegal activity, dishonest conduct, cheating, plagiarism, and collusion.

Cheating: the unauthorized use of another's work and reporting it as your own. If cheating is detected, the student will earn a zero for the assignment. Plagiarism: using someone else's ideas without proper credit; if detected, the student will earn a zero for the assignment.

Artificial Intelligence & ChatBots

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that can generate or suggest text, as determined by the instructor. Any use of such software must be documented. Any undocumented use constitutes plagiarism and will result in a zero for the assignment. In this course, AI may be used for brainstorming, tool troubleshooting, and writing clarity when disclosed; it may not be used on the practical assessment or where a prompt states otherwise. Students are fully responsible for the content of any assignment they submit, including cases in which an AI plagiarized another text or

misrepresented sources. (13.99.99.R0.03 Undergraduate Academic Dishonesty; 13.99.99.R0.10 Graduate Student Academic Dishonesty.)

Ethics

Integrity is the hallmark of the accounting profession and will be stressed throughout the course. Any breach of ethics—illegal activity, dishonest conduct, cheating, plagiarism, or collusion—will result in failure of the assignment or exam (zero points) and/or further academic sanction. All students shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment.

ADA Statement — Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities and requires that students with disabilities be guaranteed a learning environment that provides reasonable accommodation. If you have a disability requiring an accommodation, contact: Office of Student Disability Services, Velma K. Waters Library 162; 903-886-5150; email StudentDisabilityServices@etamu.edu.

Nondiscrimination Notice

East Texas A&M University will comply, in the classroom and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information, or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry

Texas Senate Bill 11 authorizes the carrying of a concealed handgun on East Texas A&M University campuses only by license holders, subject to restricted locations. The open carrying of handguns is prohibited on all campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Mental Health Support

The Counseling Center (Halladay Building, Room 203) offers counseling services and 24/7 crisis assessment at 903-886-5145. More information: www.etamu.edu/counsel.

Email Policy

Use your myLeo account for all correspondence and include the course number in the subject line. Emails are answered within 24 hours on weekdays; if you do not hear back, assume the email was not received and contact the instructor again.

Withdrawal

It is the student's responsibility to drop the class. The instructor will not drop you from the course; follow University rules for dropping or withdrawing.

TECHNOLOGY REQUIREMENTS

Log in to D2L with your campus-wide ID (CWID). Contact the Center for IT Excellence (CITE) at 903-468-6000 or helpdesk@etamu.edu for login help. Ensure your browser has JavaScript and Cookies enabled; Brightspace is optimized for the latest Google Chrome, Apple Safari, Microsoft Edge, and Mozilla Firefox. For Brightspace technical support call 1-877-325-7778. Personal computer or internet problems do not excuse late work—keep a backup plan (campus lab, library, or a second device) for completing and submitting work on time.