



National Taiwan University of Science and Technology

2021 Summer Program

ACCT 361 Accounting Analytics

Course Outline

Course Code: ACCT 361

Instructor: Islam Rizvanoglu

Home Institution: University of Houston

Office Hours: TBA and by appointment

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Credit: 4

Course Description and Objectives

This course introduces the concepts and applications of data collection, storage, and processing in the context of financial and nonfinancial data needed to report information to internal and external users. We will mainly focus on relational database systems (using Microsoft Access) to capture the business processes of an organization and the internal controls embedded in those processes.

At the end of the class:

- Students will be able to create conceptual models that describe the business processes of various enterprises across many industries.
- Students will learn database theory and convert the conceptual models into a physical database implementation that will record, maintain, and report financial and nonfinancial information.
- Students will assess business process and information risks and understand and apply the general, system, and application controls necessary to prevent or detect fraud and inaccuracies from occurring.
- Students will increase their awareness of the impact of technology on accounting.
- Students will record, maintain, and report financial and non-financial information in real-time using event-driven enterprise information systems.
- Students will explain how enterprises create value and learn about various industries, ranging in complexity from retail firms to manufacturers.

Course Textbook and Software Requirements

- Romney, *Accounting Information Systems*, (15th edition), 2021, Pearson.



- Microsoft Access
- Microsoft Excel
- Tableau Desktop data visualization software

Detailed Course Requirements

- **Exams:** There will be Midterm and Final Exam. Each exam will make 40% of your grade. Exams will not be cumulative.
- **Course Project:** I will assign one take-home project so that you can showcase your technical skills. I will not accept late submissions. The project will make 20% of your grade.

Tentative Weekly Course Schedule

Week 1

Chapter 1. Accounting Information Systems: An Overview
Chapter 2. Overview of Transaction Processing and Enterprise Resource Planning Systems
Chapter 3. Systems Documentation Technique
Chapter 4. Relational Databases
Chapter 5. Introduction to Data Analytics in Accounting
Chapter 6. Transforming Data
Chapter 7. Data Analysis and Presentation

Homework 1

Week 2

Chapter 8. Fraud and Errors
Chapter 9. Computer Fraud and Abuse Techniques
Chapter 10. Control and Accounting Information System
Chapter 11. Controls for Information Security
Chapter 12. Confidentiality and Privacy Controls
Chapter 13: Processing Integrity and Availability Controls

Midterm Exam

Week 3

Chapter 14: The Revenue Cycle: Sales to Cash Collections
Chapter 15: The Expenditure Cycle: Purchasing to Cash Disbursements
Chapter 16: The Production Cycle
Chapter 17: The Human Resources Management and Payroll Cycle

Homework 2

Week 4

Chapter 18: General Ledger and Reporting System
Chapter 19: Database Design Using the REA Data Model
Chapter 20: Implementing an REA Model in a Relational Database



Final Exam

Grading System:

A+:	95-100
A :	87-94
A-:	82-86
B+:	78-81
B :	75-77
B -:	71-74
C+:	68-70
C :	65-67
C -:	61-64
D :	55-60