

Enterprise-wide Accounting Information Systems

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Contact Information

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Course Overview

Information Systems form the **nervous systems** of organizations; they collect, process and distribute information for decision-making. For some time in the past, accounting professionals focused their attention mainly on financial accounting. However, since almost all organizational activities have accounting implications and since information systems for processing all transactions now have direct access to financial accounting systems and make accounting postings, accounting professionals have also started to look at all information systems in organizations under the umbrella of **accounting Information systems** or **enterprise information systems**.

Enterprise information systems operate around a repository of data – a database – and in this sense databases play a very central role in such systems. Modern technologies make it possible to capture huge volumes of data effortlessly. Retrieving meaningful information from such stores can be very labor-intensive unless the information store has been designed well. Although IT analysts usually drive the process of designing these data stores, managers from all functional areas play active roles in the process to specify information storage and retrieval requirements. Because almost all business transactions have accounting implications, accounting professionals play a central role in the process. As a result, functional managers and IT professionals alike can benefit by understanding the process of **database design** even if they do not expect to ever have to design complex databases from scratch.

People have tried different approaches for storing the “operational” data of enterprises. The **relational database model** has endured as the most flexible approach thus far, and is widely used. Organizations use relational database technologies to store almost all of their structured information. Accounting and IT professionals, and arguably, all managers can benefit by being skilled in extracting meaningful information from relational databases. The course therefore covers **Structured Query Language (SQL)**.

Increasingly, organizations deploy information systems as **web applications** and business students from all disciplines can benefit from understanding the basics of web applications. The course teaches basic technologies to enable students to build and deploy web applications on top of data stored in a relational database.

Course Information

Learning Goals

- Describe the role that the IT function plays in determining/supporting an organization's vision and strategy.
- Describe the IT governance structure within an organization.
- Explain the role of information systems and ecommerce in key business processes in an organization.
- Describe the steps, issues and risks in the process of developing and deploying information systems
- Explain the role of enterprise systems (ERP) in organizations.
- Design a robust relational database schema in the form of Entity Relationship Diagrams to support a specified set of business requirements.
- Use the Oracle SQL Developer Data Modeler tool to draw Entity Relationship Diagrams (ERD).
- Transform an ERD into a physical database schema with integrity constraints, sequences and associated triggers.
- Use the SQL language for data insertion, update and retrieval.
- Use the Oracle Apex platform's database manager.
- Develop and deploy a fully-functional web-based application to process transactions against a relational database.

Course Text

No required text. The instructor will provide all the material needed.

Grading

Borrowing from the Surgeon General of the US: "Your instructor has determined that studying with a grade in mind is detrimental to learning." Please do your best to internalize everything that the course covers. Participate actively and enthusiastically to really grasp the concepts and their application. Your grade will take care of itself.

Assignments	10%
Project	10%
Tests (2)	80%

Final letter grades will be based on the final weighted percentage score as per the following schedule:

≥ 93	A
90 – 93	A-
85 – 90	B+
80 – 85	B
...	

Pedagogy

Approach

The instructor does not consider you to be passive receptacles into which he can “pour” knowledge. You can only learn by actively engaging with the subject matter. The instructor will create the right learning environment, but you must take charge of your learning. If you fulfill your end of the bargain, you will end up with a set of valuable tools in your arsenal.

- Expect to do at least 10 hours of work each week – depending on your prior knowledge and aptitude, it could take even longer. Sessions will build on top of each other and you risk being left behind if you do not keep up with the work.
- Study the material provided thoroughly before starting on assignments.
- Engage in “Active Learning” whereby you learn by doing – not by listening passively. You will strengthen your grasp of the subject matter by participating in discussions – in class or on-line.

Class discussions on Slack

We are a *learning community* and can benefit enormously from extensive interaction. We will be using Slack for class discussion.

Please do not wait for me, the instructor to answer any questions posted. I encourage you to jump in with your answers and comments -- you will be surprised at the creative and innovative insights that you and your colleagues can contribute.

Academic Honesty

All work in the course (other than any activity identified explicitly as a group task) is to be completed individually. While you should definitely discuss freely with others the ideas and concepts covered in the course, I expect you to complete all assignments, quizzes and tests individually. The school’s policy on Academic Honesty is available with me for your perusal. Without exception, I will award and F grade and report breaches of academic honesty to the university administration.

Stillman School Mission

Our mission is to enrich each student’s life through an ethics-centered education focusing on transforming concepts into business practice.

Detailed schedule (can change)

Week	Topic
1	Course introduction; Enterprise systems; structure of a relational database; introduction to SQL; Database driven web applications. Working with databases in APEX
2	SQL – 2; Integrity constraints, triggers, sequences
3	SQL – 3; APEX applications; Creating APEX forms (simple and master-detail)
4	SQL Review and SQL test

5	Database design for enterprise systems – 1
6	Database design for enterprise systems – 2; Customizing APEX applications
7	Database design for enterprise applications – 3; Developing custom APEX forms
8	Course project and test

Important dates

	Add drop and late registration end
	Last day to file course withdrawal form without professor/dean signature; deadline for pass-fail and audit requests; Last day for Fall 2012 baccalaureate candidates to add a major or minor
	Last day to submit course withdrawal forms with professor/dean signature
	On-line application for Degree for Spring 2015 undergraduate and graduate degrees available in Banner Self-Service;
	Deadline for filing the above