

Description

This course is designed to provide the student with a thorough understanding of both the role that Enterprise Resource Planning Systems (ERPs) play in an organization and the challenging task of managing the Information Systems (IS) function. During the semester, homework will be assigned that afford the student the opportunity to work through many real-life business situations using the SAP ECC system and explore the interaction among the different business processes. SAP is the world's leading provider of Enterprise software designed to integrate every aspect of a company's operation. The hands-on exercises, coupled with the in-class discussions of ERPs, will prepare the student with the knowledge sought by businesses looking to use technology to maintain their competitive edge in the market place.

Objectives

At the completion of the course, students will be able to

- Describe the role of an ERP in carrying out business processes in a company
- Explain how 'best business practices' are incorporated in an ERP
- Execute an entire business process chain in the following areas
 - Sales
 - Procurement
 - Production
 - Accounting
- Strategize pricing, production and sales in a competitive commodity market
- Analyze sales data in an ERP to dynamically respond to changing market conditions to maximize profits
- Expedite production planning and control using tools provided in an ERP (e.g. MRP)
- Report on the reasons for the success (or failure) of their production and sales strategy

Instructor Nitin Kalé

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Office Hours 1:15 – 2:30 pm, MW

TA Christine Nguyen, nguyen7@usc.edu

Course Website <https://www.uscden.net>

Lecture 2:30 – 6:00 pm, MW, RTH 109

Simulation Game An ERPSimulation Game will be played on three days towards the end of the semester. Game can be played remotely by off-campus students. Participation in the game is **mandatory** for all students. If students have a conflict with the class time on game days, please reconsider your enrollment in this course.

Textbooks

- Integrated Business Processes with ERP Systems, by Simha R. Magal and Jeffrey Word, ISBN: 978-0-470-47844-8, Wiley
- ERP Simulation Game: *Participant's Manual* (ebook) will be available for purchase online (cost \$40 CAD payable online by credit card, details to be announced mid semester)

Reference Books (not required)

- Essentials of Business Processes and Information Systems, by *Simha R. Magal and Jeffrey Word* , ©2010, ISBN: 978-0-470-23059-6
- Enterprise Resource Planning, 3rd Edition, by *Bret Wagner and Ellen Monk*, ISBN: 9781423901792, ©2009
- SAP R/3, Business Blueprint, 2nd Edition, by *Thomas A. Curran & Andrew Ladd*, Prentice Hall PTR, ©2000, ISBN: 0-13-085340-2

Software

- SAP is the leading vendor of Enterprise Resource Planning Systems in the world. USC Viterbi has had an Academic Alliance with SAP University Alliances Program for the past 15 years. Several Viterbi ISE and ITP courses utilize the SAP system as a tool and platform for class Homework.
- Students will receive software (SAP GUI for both Windows and MAC) to connect to the SAP ECC 6.0 server so that they can work from their personal computers.
- You will also need Microsoft Excel and Access for analyzing the data from the ERPSimulation Game. If you do not have these, you will get access to a remote server with this software.

Grading The weight of graded material during the semester is listed below.

Homework	25%
Midterm Exam	25%
ERPSim Game	
Quiz	7.5%
Peer evaluation	5%
Game performance	5%
Mid-game analysis	2.5%
Final report	5%
Final Exam	25%
Total	100%

Final letter grade is based strictly on total percentage earned. NO EXCEPTIONS! No extra credit assignments will be offered.

Grading scale (percentage):

A	100-95
A-	95-92
B+	92-89
B	89-86
B-	86-83
C+	83-80
C	80-77
C-	77-74
D+	74-71
D	71-68
D-	68-65
F	Below 65

Discussion Board	To get help on homework, follow these simple steps <ul style="list-style-type: none"> • Read the homework instructions carefully • Review the “Discussion Board” section of the DEN class website’s forum for other student questions and comments or post a question yourself to begin the forum. • If you cannot find an answer above, email the grader and me
Policies	<ul style="list-style-type: none"> • Homework turned in after the deadline will automatically have 10 points per day deducted. • No make-up exams (except for medical or family emergencies) will be offered
Academic Integrity	<p>The use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work is unacceptable to the University. It is often difficult to distinguish between a culpable act and inadvertent behavior resulting from the nervous tension accompanying examinations. When the professor determines that a violation has occurred, appropriate action, as determined by the instructor, will be taken.</p> <p>Although working together is encouraged, all work claimed as yours must in fact be your own effort. Students who plagiarize the work of other students will receive zero points and possibly be referred to Student Judicial Affairs and Community Standards (SJACS).</p> <p>The School of Engineering adheres to the University's policies and procedures governing academic integrity as described in SCampus. Students are expected to be aware of and to observe the academic integrity standards described in SCampus, and to expect those standards to be enforced in this course.</p> <p>All students should read, understand, and abide by the University Student Conduct Code listed in SCampus, and available at: http://www.usc.edu/student-affairs/SJACS/nonacademicreview.html</p>
Students with Disabilities	Any Student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. - 5:00 p.m., Monday through Friday. The phone number for DSP is (213)740-0776."
Policy on Religious Holidays	University policy grants students excused absences from class for observance of religious holy days. Students should contact instructor IN ADVANCE to request such an excused absence. The student will be given an opportunity to make up work missed because of religious observance.
	Students are advised to scan their syllabi at the beginning of each course to detect potential conflicts with their religious observances. Please note that this applies only to the sort of holy day that necessitates absence from class and/or whose religious requirements clearly conflict with aspects of academic performance. Please refer to the Holy Days Calendar http://orl.usc.edu/religiouslife/holidays/

Enterprise Wide Information Systems

ISE 583 (3 Units)

Class schedule

May 16th - Introduction

- Course Overview
- Discussion of database applications
- Business function vs business process
- Introduction to Enterprise Resource Planning (ERP)
- Examples of ERP – SAP
- Client/Server Technology, 2 Tier, 3 Tier, n Tier
- Getting Started with SAP
- Introduction to Case company

Homework 1: SAP Environment

May 21st - Accounting

- Financial Accounting basics – Balance sheet, Profit and Loss Statement
- General Ledger, Chart of Accounts
- Posting financial transactions, A/R and A/P accounts
- Controlling – Cost centers and cost elements
- Allocating Costs – Assessments and distributions

Homework 2: Accounting

May 23rd - Procurement Process

- Forecasting raw material requirements using sales information, production requirements, sales forecast
- Raw Material procurement
- Vendors and pricing conditions
- Payment

Homework 3: Purchasing Cycle

May 28th – Memorial Day – University Holiday

May 30th - Sales Process

- Sales and fulfillment cycle
- Master Data and its role in ERP systems
- Creating customer master data, material master data and pricing conditions
- Implementing a Sales Cycle

Homework 4: Sales Cycle

June 4th - Production Process: Planning and control

- Creating a production plan (from forecasting etc.)
- MRP – Materials requirement planning
- Independent and dependent materials requirements
- Creating Production orders and schedules
- Bill of Materials

- Executing a Production process
- Inventory and Goods movement
- Routing and work centers
- Costing

Homework 5: Production

June 6th - **Midterm Exam (90 mins)** ERP Simulation Game

- Goals of the ERP Simulation Game
- Game description

June 13th - ERPSim Game Day– Quarters 1,2,3

- Introductory game
- Analyzing data from the game
- Producing Profit and Loss statements for the company
- Strategy for Extended game

June 11th - ERP Simulation Game

- How the market works, dynamic commodity demand and supply
- Planning and forecasting for procurement and production
- Costing, accounting, liquidity planning
- Interest and warehouse costs
- Production improvement
- Marketing impact
- Strategy for Extended game

Mid Game report

June 18th - ERPSim Game Day– Quarters 1-4

- Extended ERPSim contest
- Playing the simulation game in real time as the market fluctuates

June 20th – ERPSim Game Day - Quarters 5-8

- ERPSim contest
- Playing the simulation game in real time as the market fluctuates
- Analysis of the entire game/market

ERPSim Quiz

June 25th **Final Exam 2:30 – 4:30 pm**