

Enterprise Resource Planning (ERP), OM 785

Spring 2008

Instructor: Prof. Amit Raturi, 556-7192, amit.raturi@uc.edu, 530 Lindner Hall
Time: Tuesday, 6-8:40 PM
Office hours: TuTh 3:45-5:30 PM

This course focuses on the methodologies and practices of ERP as a complete enterprise wide business solution. An ERP system consists of software support modules such as: marketing and sales, field service, product design and development, production and inventory control, procurement, distribution, industrial facilities management, process design and development, manufacturing, quality, human resources, finance and accounting, and information services. In this course we will focus on the Production Planning (PP) and Materials management (MM) modules of an ERP system, with peripheral attention to other business functions. The primary software for assignments and projects will be the SAP/R3 system, Release 4.6. As such the course is suitable for students planning to go into ERP consulting or become ERP users in manufacturing firms. Some, although lower value will also be derived by students entering the service sector through topics such as schedule development as well as projects using Peoplesoft or Oracle in a service business.

Materials:

Class handouts and Blackboard posts (required)
Required: APICS membership (form attached)

Deliverables and Grading:

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|----------------------------------|------------|
| 1. 4 Assignments | 400 points |
| 2. Paper presentation and report | 150 points |
| 3. Quizzes (2) | 450 points |

Assignments:

You will complete assignments using MRP on Excel, lab exercises using the SAP/R3 system that entail (1) creating a bill of material and a part routing file, (2) Creating resources, work orders and a master schedule, (3) Exploding the bill of material, and issuing purchase and shop orders. Assignments may include a case report.

Project:

Your term paper and presentation must be related to APICS topics and will be submitted for the APICS student paper competition (see Blackboard). **This portion of the course is worth 1 credit hour in outside class activity, so I am expecting a fairly professional submission that follows APICS guidelines.** I will handout typical topics for the paper as well as show you examples of papers from University of Cincinnati that have won this award.

Guidelines:

1. 8-10 page double-spaced paper

2. Submit an electronic copy as well as a printed copy and make sure you have the cover sheet from APICS guidelines with all details attached in the front.
3. The paper should address a significant managerial issue in ERP/implementation/resource management
4. The paper must follow guidelines for the Fogarty student paper competition (APICS). Details can be found on Blackboard or:
<http://www.apics.org/Education/ERFoundation/Competitions/dwf.htm>

2007 winners of the Donald W. Fogarty International Student Paper Competition were:

1st Place–Graduate [Capacity Planning in the Semi-Conductor Industry: Challenges and Opportunities at RF Micro Devices](#)

Dean Hutchins and Bernard de Neeve, University of North Carolina-Greensboro,
Prize: \$1,000

2nd Place–Graduate *Supply Network: Next Generation of Supply Chain*

Qiannong Gu, University of Houston, Prize: \$500

3rd Place–Graduate *Barkingham Palace Resort, a Fictitious Business*

Mary Jones, Linda Deip, Belinda Din, Matt West, California State University East Bay
Prize: \$250

Quizzes:

Two in-class quizzes over the quarter will sequentially test your learning. Samples will be posted on Blackboard.

Schedule and Notes:

Week	Topic	Reading		Assignments/Quizzes
		Theory	SAP	
1 4/1	Introduction Review basic definitions and frameworks	1. ERP Fundamentals	S1. SAP Fundamentals	
2 4/8	Sales and Operations Planning	2. Sales operations planning	S2. Production and supply management in SAP	Submit abstract of research paper
3 4/15	Master scheduling	3. Master Production scheduling	S3. Display R3 Info S4. SAP fundamentals exercise	Assignment 1 due SAP Lab SAP Account Number_____
4 4/22	MRP basics and advanced	4. MRP and Advanced MRP	S5. Production Planning in SAP S6. Production logistics	
5 4/29	Capacity Planning and Scheduling	5. Capacity planning		Assignment 2 due Quiz 1 May schedule SAP lab
6 5/6	Production Activity Control	6. Production activity control		
7 5/13	MM in SAP DRP and base stock distribution systems	7. DRP	S7. Understanding MM S8. Procurement logisitcs	Papers due
8 5/20	ERP Selection	8. Process modeling and ERP implementation	S9. Harley	Assignment 3 due
9 5/27	ERP Implementation	9. ERP Making it happen	S10. Geneva S11. Project management using SAP	SAP Lab
10 6/3	Paper presentations			
Exam week 6/10	Quiz 2			Assignment 4 due