Enterprise Resource Planning (ERP)
IS-601

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Student Interaction Time: Wednesday, 5-6 pm

Course Description

The course provides an overview of enterprise systems and supply chain management concepts, and introduces students to how Enterprise Resource Planning (ERP) systems are used to manage business and take effective decisions. In addition the course helps in developing an understanding of the managerial issues involved in planning and implementing an ERP application, software selection, vendor identification, preparing the organization for ERP, along with identification of critical factors for successful implementation. The course integrates SAP ERP software throughout the course, which is one of the world's largest, and most powerful enterprise applications.

Course Objectives

The objectives of the course are to enable you to:

- Provide an **overview of enterprise systems** including their business use, evolution, features, advantages, modules and business applications.
- Develop an understanding of how ERP systems **automate** business processes used to run organizations.
- Provide **hands-on exposure** to work on a real ERP system and develop an appreciation for SAP software
- Learn how to **manage the supply chain** of an organization using an ERP system
- Get an understanding of the **architecture** of ERP systems.
- Learn the importance of managing **change and reengineering** while implementing ERP systems.
- Get an understanding of the **strategy** behind planning, designing and implementing an ERP and associated challenges
- Develop an understanding of the **complementary technologies** of ERP and its future
- Gain an understanding of the **integration** potential of ERP
- Prepare students for **career opportunities** in industry

Course Content and Session Plan:

Session	Topics	Readings/Cases/Exercises

1-2	Introduction to ERP and Business Processes
	  o Definition And Description of ERP
	  o Advantages And Disadvantages of ERP
	  o The Evaluation of ERP Systems.
		Chapter 1 of Text Book
		
		Additional Reading:
		- ERP Definition and Solutions
		- ERP – Get it right, first time

3-4	Preparing the Organizations for ERP solutions:
	  o Effectively Readying your Organization for ERP
	  o Defining ERP Strategies
	  o Principles & Elements of Business Engineering.
	  o Elements of Business Engineering.
	  o Requirements for Successful Implementation of Business Engineering.
	  o Client/Server Technology and its benefits.
		Chapter 2 of Text Book
		
		Additional Reading: Putting the Enterprise into the Enterprise System
		
		HBR Case: Cisco Systems Inc. Implementing ERP *(Group 1 to present and Class to Critique)*

5-6	An Introduction to SAP System
	  o An Introduction to accessing and navigating the SAP ECC6 System.
	  o SAP ECC6 Screens
	  o Understanding Organizational Structure
	  o Master Data Entries
	  o Business Rules
		Additional Reading: Top 10 Reasons to consider a Packaged ERP
		
		Navigation Exercise from ERP Exercise Book

7-8	Sales and Distribution (SD) Process
	  o Sales Order Process
	  o Managing Customer Order and Sales Process
		Chapter 3 of Text Book
		
		SD Case Study from ERP Exercise Book
		
		HBR Case: Enterprise IT at Cisco 2004 *(Group 2 to present and Class to Critique)*

9-10	Materials Management (MM) Process
	  o ERP Business Modules for Materials Management (MM)
	  o Procurement Process and Running an MRP
		Chapter 4 of Text Book
		
		MM Case Study from ERP Exercise Book
		
		HBR Case: Whirlpool Europe *(Group 3 to present and Class to Critique)*

11-12	Production Planning and Execution (PP) & Supply Chain Management	**Chapter 4 of Text Book** **PP Case Study from ERP Exercise Book** HBR Case: Esterline Technologies: Lean Manufacturing *(Group 4 to present and Class to Critique)*
13-14	ERP Business Modules for Financial Accounting & Control (FI-CO)	**Chapter 5 of Text Book** **FI-CO Case Study from ERP Exercise Book** HBR Case: Moore Medical Corporation *(Group 5 to present and Class to Critique)*
15-16	Integration of ERP Modules and Process Modeling	**Chapter 6 of Text Book** **Integration Case Study from ERP Exercise Book**
17-18	ERP Implementation Issues & New Media Integration	**Chapter 7 of Text Book** *Additional Reading:* - ERPs: How to Make them Work - The Elusive Transformation
19-20	o Defining the Implementation Strategies for Successful ERP o Handling Post-Implementation Issues o Integrating ERP with Emerging Technologies & Platforms	**Chapter 8 of Text Book** *Additional Reading:* - The Next-Generation ERP - Choosing Between Cloud and Hosted ERP, and Why It Matters HBR Case: Cisco System Architecture ERP & Web-enabled IT

Pedagogy

The course will be taught with the help of classroom discussions, case analysis and presentations, research assignments and online SAP exercises.

Evaluation:

- ➢ Quiz   20%
- ➢ Case   20%
- ➢ Assignment   15%
- ➢ End Term   30%
- ➢ Project   15%

Certification

SAP-IMI co-branded certification would be awarded on successful completion of the course by SAP.

Text Book & Teaching Material:
- Concepts in ERP, Ellen Monk and Bret Wagner, Cengage Learning
- ERP Exercise Book

Reference Books:

- Integrated Business Processes with ERP System by Simha R. Magal, Jeffrey Word, Wiley
- Enterprise Systems for Management by Motiwalla and Thompson, Pearson Education
- Enterprise Resource Planning by Mary Sumner, Pearson Education
- Managerial Issue of ERP Systems by David L. Olson, Tata McGrawHill
- Maximizing your ERP System by Scott Hamilton, Tata McGrawHill
- Concepts in Enterprise Resource Planning by Brady, J.A., Course Technology