SE401: BUSINESS PROCESS REENGINEERING

No. of credits: 03

- **COURSE OBJECTIVES:**

- To enrich students with concepts and knowledge of business processes in an organization, BPR methodology, implementation of BPR and the relationship with Information Technology, TQM, Kaizen & focus towards customer satisfaction.

- To prepare the professionals to match and maintain International standards in reinventing Organizations for Continuous Process Improvement, JIT.

- **COURSE OVERVIEW:**

The objective of the Program is to provide in-depth knowledge on Reengineering to acquire better practices and skills accordingly to meet the tremendous change of industry through tools & techniques of BPR.

- **PREREQUISITES FOR THE COURSE:**

Students are expected to have working knowledge of computers & have a Passion to design and execute Processes through reengineered Solutions.

- **PEDAGOGY:**
  - **Class conduction methodology**: The main aim of the curriculum is to illustrate how the existing tools and techniques can be used effectively to ensure success in managing software requirements in terms of customer needs and expectations As far as possible case based learning will be used to demonstrate the application of conceptual frameworks to real life examples
  - **Assignments & project work**: Since the subject involves a large number of concepts integrated into it, students will be asked to work on a lot of assignments to cover even the intricate details of the concepts involved. They will also be expected to undertake a project work which involves meeting a client ,gathering requirements ,preparing an SRS as well as a project layout to

ensure that they get a practical exposure to the theoretical concepts covered in the curriculum

- **DETAILED COURSE CURRICULUM**

Module 1

Introduction to business process reengineering, Introduction to Business Process Reengineering, Reengineering And The Organizations Of Tomorrow, The Search for the Organization of Tomorrow, Toward a Definition of Corporate Transformation, Barbara Blumenthal and Philippe Haspeslagh. Case Study: What a Zoo Can Teach You , Thomas A. Stewart.

Module 2

Principles and methods of BPR, Reengineering Work: Don't Automate, Obliterate, Michael Hammer, A Methodology for Reengineering Businesses, Broadening Visions of Business Process Reengineering, Case Study: Precision Materials, Inc. A Six-Step Guide to Process Reengineering, Timothy R. Furey.

Module 3

Strategic aspects of BPR, Business Reengineering—A Strategy-Driven Approach, The Matrix of Change, Erik Brynjolfsson, Amy Austin Renshaw, Marshall Van Alstyne.
Process Reengineering: The Strategic Dimensions, William R. King, Case Study: Deregulation, Reengineering, and Cultural Transformation at Arizona Public Service Company, Samuel M. DeMarie and Barbara W. Keats.

Module 4

Measurement issues in BPR, The Performance Measurement Manifesto, Robert G. Eccles, Redesign Your Organization for Time-Based Management, George Stalk, Jr. and Thomas M. Hout., Creating Customer Value by Streamlining Business Processes, Herman Vantrappen, Reengineering for Revenue, Nick Wreden., Beyond Reengineering: The Three Phases of Business Transformation, W. H. Davidson, Case Study: Whirlwind on The Web, Gary McWilliams.

Module 5

Operational aspects of BPR, Reengineering Methodologies and Tools: A Prescription for Enhancing Success, Mark M. Klein, Creating Robust Work Processes, Ronald D. Snee, Aiming High: Competitive Benchmarking for Superior Performance, Y.K. Shetty, Using Benchmarking to Set Goals, H. Kevin Vaziri, Reducing Complexity and Working with Bottlenecks Improves an Oil Refinery's Engineering Performance, Dana Ginn and Ray Barlog, Strategic Outsourcing, James Brian Quinn and Frederick G. Hilmer, Using

Cooperative Strategies to Make Alliances Work, Edwin R. Stafford, Creating a Change Reaction: How Understanding Organizational Dynamics Can Ease Reengineering, Bill Trahant and W. Warner Burke, Case Study: Does Macy's Tell Gimbels? Alexandra Biesada.

Module 6

BPR and total quality management, Questing for the Best, Otis Port, Quality Value-Chain: A Meta-Synthesis of Frontiers of Quality Movement, R. Ray Gehani, Making Total Quality Work: Aligning Organizational Processes, Performance Measures, and Stakeholders, Judy D. Olian and Sara L. Rynes, What's Wrong with Total Quality Management? Joseph H. Boyett, Henry P. Conn, A.T. Kearney, Quality: How to Make It Pay, David Greising, Need Radical Innovation and Continuous Improvement? Integrate Process Reengineering and TQM, Thomas H. Davenport, Managing Current Change Initiative: Integrating Quality and Work/Family Strategies, Joel Cutcher-Gershenfeld, Ellen Ernst Kossek, Heidi Sandling, Case Study: Life After the Deming Prize, Robert W. Rutledge.

Module 7

BPR and Information Systems, Redesigning the Organization Through Information Technology, Peter G. W. Keen, IT-Enabled Business Transformation: From Automation to Business Scope Redefinition, N. Venkatraman, The Magic Bullet Theory in IT-Enabled Transformation, M. Lynne Markus and Robert I. Benjamin, Case Study: Business Reengineering at CIGNA Corporation: Experiences and Lessons Learned from the First Five Years, J. Raymond Caron, Sirkka L. Jarvenpaa, Donna B. Stoddard.

Module 8

the management of BPR, The Most Fatal Reengineering Mistakes, Mark M. Klein, Preconditions for BPR Success and How to Prevent Failures, Barbara J. Bashein, M. Lynne Markus, Patricia Riley, Minimize the Pain of Reengineering, Keith Ferrazzi, Leveraging Management Improvement Techniques, K. J. Euske and R. Steven Player, Case Study: Reengineering: Report from the Trenches, Jeff Moad.

- **EVALUATION COMPONENTS:**

Component	Weightage
Attendance	10%
Mid term	20%
End term	40%
Project Work	20%
Assignments	10%

- **RECOMMENDED TEXT BOOK:**

1. **Organizational Transformation Through Business Process Reengineering** Applying Lessons Learned, 1/e, *Vikram Sethi, William King*, ***Pearson Education***

- **REFERENCE BOOKS:**

1. Business Process Reengineering & Change Management, B.R.Dey, *Biztantra***.**
2. BPR , *R.Radhakrishna , S. Balasubramanian* , PHI .

DATABASE MANAGEMENT SYSTEMS

No. of credits: 03

- **COURSE OBJECTIVES:**

- To give an introduction to the Concepts, development and use of databases.
- Apply Theory of Databases to Develop and use a Database using a Database Management System (DBMS).
- Provide a practical exposure to any commercial RDBMS package.

- **COURSE OVERVIEW:**

Database Management system(DBMS) is very crucial for managers basically because it supports Managerial Decision making at All Levels of an Organization by providing each level of management with a separate view of the data that would support them in their specialized decision making roles.

How the course will benefit managers:

From the managerial perspective, the three crucial roles played by a DBMS are

- Provide necessary data for tactical decision making and planning
- Monitor and control the use of company resources
  - How efficiently are the resources allocated and used (including data)
  - What potential or current operational problems exist
  - Evaluate the performance of the different departments
- Provide a framework for ensuring the security and privacy of the data in the database.

The curriculum has been designed so as to cater to all the above mentioned requirements of a manager.

- **PREREQUISITES FOR THE COURSE:**

The students should have studied management information system (MIS).

- **PEDAGOGY:**

  - **Class conduction methodology**: Some parts of the curriculum demand parallel sessions of theory and practical sessions so as to help the students gain a through understanding of the various concepts which demand practical exposure. As far as possible case based learning will be used to make the students aware of the problems they would encounter while working with databases
  - **Assignments & project work**: Since the subject involves a good amount of technicality in it, students will be asked to work on a lot of assignments to cover even the intricate details of the concepts involved. Since the course includes hands on working on any commercial RDBMS package, Students will be expected to develop a database using almost all the concepts they have covered as a part of the course. This gives a scope for practical coverage of the concepts studied.

- **DETAILED COURSE CURRICULUM:**

1 **Introduction to databases**

An overview of Database Management System, Database System Vs File System, Database system concepts and architecture, data models schema and instances, data independence and database language and interfaces

2 **Entity Relationship modeling**

ER model concepts, notation for ER diagram, mapping constraints, keys, concepts of Super Key, candidate key, primary key, Generalization, aggregation, reduction of an ER diagrams to tables

3 **Normalization of Databases**

Guidelines for database design, the need for Normalization, Armstrong's Axioms, Functional dependencies, normal forms, first, second, third normal forms. Boyce codd normal form.

4 **Structured Query Language**

Introduction to SQL: Characteristics of SQL, Advantages of SQL, SQL data types and literals, Types of SQL commands, SQL operators and their procedure, Tables, views and indexes, Queries and sub queries, Aggregate functions, Insert, update and delete operations.

5 **Introduction to transactions and concurrency Control**

Problems in transaction, need for concurrency control, Schedules, Serialisability of schedules, Lock based concurrency control, Different types of computer failures, Access control methods, need for recovery, different types of recovery mechanisms.

6 **Project work**

Develop a database which can be used for any specific application like insurance, banking and so on using any commercial package.

- **RECOMMENDED TEXT:**

  Introduction to Database Management Systems by Gillenson, Wiley publications.

- **SUGGESTED READINGS:**

  1) Database System Concepts- Korth and Sillberschatz
  2) Database Management System-Remez Elmasri and Shamkant.B.Navathe
  3) Database systems: design implementation and management, by Rob P and Coronel
  4) Database Systems –Simon Leon and Alexis Leon
  5) Introduction to Database sytems-C.J.Date

Evaluation Plan

Attendance	10%	
Mid-term	20%	
End –term	40%	
Project		20%
Assignment	10%	