Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India

(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
CPE7026	Elective-IIEnterprise Resource Planning and Supply Chain Management (ERP & SCM)	4	-	-	4	-	-	4
		Examination Scheme						
		ISE		MSE		ESE		
		10		30		100 (60% Weightage)		

Pre-requisite Course Codes	-

At end of successful completion of this course, student will be able to

Course Outcomes	CO1	To conceptualize the basic structure of ERP and SCM
	CO2	To identify implementation strategy used for ERP and SCM.
	CO3	To apply design principles for various business module in ERP and SCM.
	CO4	To apply different emerging technologies for implementation of ERP and SCM.

Module No.	Unit No.	Topics	Ref.	Hrs.
1	1.1	**Introduction:** What is an Enterprise, Introduction to ERP, Need for ERP, Structure of ERP, Scope and Benefits, Typical business processes	1,2,3	02
2	2.1	**ERP and Technology:** ERP and related technologies, Business Intelligence, E-business and E-commerce, Business Process Reengineering,	1,2,3	04
3	3.1	**ERP and Implementation:** ERP implementation and strategy, Implementation Life cycle, Pre-implementation task, requirement definition , implementation methodology)	1,2,3	06
4	4.1	**ERP Business Modules** Modules: Finance, manufacturing, human resources, quality management, material management, marketing. Sales distribution and service	1,2,3	08
5	5.1	**Extended ERP:** Enterprise application Integration (EAI), open source ERP, cloud ERP	1,2,3	04

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Supply Chain Management (SCM)				
6	6.1	**Introduction and strategic decisions in SCM** Drivers of Supply chain, Strategic decisions in SCM, Business Strategy, CRM strategy, SRM strategy, SCOR model.	1,2,3	08
7	7.1	**Information Technology in SCM:** Types of IT Solutions like Electronic Data Inter change (EDI), Intranet/ Extranet, Data Mining/ Data Warehousing and Data Marts, E-Commerce, E- Procurement, Bar coding, RFID, QR CODE	1,2,3	06
8	8.1	**Mathematical modelling for SCM:** Introduction, Considerations in modelling SCM systems, Structuring the logistics chain, overview of models: models on transportation problem, assignment problem, vehicle routing problem, Model for vendor analysis, Make versus buy model	1,2,3	06
9	9.1	**Agile Supply Chain:** Introduction, Characteristics of Agile Supply Chain, Achieving Agility in Supply Chain..	1,2,3	02
10	10.1	**Cases of Supply Chain:** 10.1 Cases of Supply Chain like, News Paper Supply Chain, Book Publishing, Mumbai Dabbawala, Disaster management, Organic Food, Fast Food	1,2,3	02
			Total	**48**

References:
[1]   V.K. Garg & N.K. Venkatakrishnan,"Enterprise Resource Planning: concepts & practices", PHI.
[2]   R. P. Mohanty, S. G. Deshmukh, "Supply Chain Management Theories & Practices", Dreamtech Press.
[3]   Alexis Leon, "ERP Demystified: II Edition", McGraw Hill .
[4]   Rahul Altekar, "Enterprise wide resource planning: Theory & practice", PHI.