



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal - 500 043, Hyderabad, Telangana

COURSE CONTENT

ENTERPRISE RESOURCE PLANNING								
IV Semester: MBA								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
CMBE60	Elective	L	T	P	C	CIA	SEE	Total
		4	-	-	4	40	60	100
Contact Classes: 45	Tutorial Classes: Nil	Practical Classes: Nil			Total Classes: 45			
Prerequisite: Business Analytics								
SDGs Mapped: SDG 9 (Industry, Innovation and Infrastructure), SDG 8 (Decent Work & Economic Growth)								

I. COURSE OVERVIEW:

This course provides an in-depth understanding of Enterprise Resource Planning (ERP) systems and their role in integrating business processes. Students will explore ERP modules, implementation methodologies, and enterprise applications, while analyzing case studies on ERP adoption and value creation. Emphasis is placed on ERP's impact on business performance, value chains, and organizational change management.

II. OBJECTIVES:

The students will try to learn:

- I. The enterprise resources, business processes, and information systems.
- II. The characteristics, evolution, and benefits of ERP systems and related technologies.
- III. The ERP modules and their applications across business functions.
- IV. The ERP implementation strategies, methodologies, and challenges.
- V. ERP project management, success factors, and post-implementation support.

III. COURSE OUTCOMES:

At the end of the course students should be able to:

- CO1 Explain enterprise resources, business processes, and process modeling techniques.
- CO2 Analyze ERP systems, related technologies, and their organizational benefits.
- CO3 Demonstrate understanding of major ERP modules and domain-specific ERP solutions.
- CO4 Evaluate ERP's role in value chain management, competitive advantage, and e-business integration.
- CO5 Apply ERP implementation methodologies, including package selection, planning, and training.
- CO6 Assess ERP project team roles, success/failure factors, post-implementation support, and security measures.

IV. COURSE CONTENT:

MODULE-I: ENTERPRISE: (08)

Overview of Enterprise Resources & Business Functions, Classifications of Business Processes, Business Process Management System; Information: Characteristics and Value of information in enterprise; Information System: Components of an Information System, Characteristics and uses of Decision Support System, Executive Information System & Management Information System; Business Process Modeling: Automation and Structuring of Business Processes, Business Process Reengineering (BPR). Cross Functional and Integrated Enterprise Systems; Case Studies

MODULE –II: ENTERPRISE SYSTEMS AND ENTERPRISE RESOURCES PLANNING (ERP) - Classes: (10)

Characteristics of Enterprise Systems, Enterprise Applications and ERP, Evolution of ERP System, Benefits of an ERP System; ERP Related Technologies: Database & Data Warehouse, Data Mining, OnLine Analytical Processing, and Workflow Management Systems.

MODULE –III: ERP MODULES -Classes: (09)

Finance, Production planning, Sales & Distribution, Human Resource Management (HRM), Inventory Control System, Quality Management, ERP in Supply Chain Management and Customer Relationship Management.

ERP Solutions in the markets and ERP Domains: Sector specific ERP Solutions, Introduction and Characteristics of SAP, BAAN and Oracle ERP. Case Studies

MODULE –IV: EXECUTION OF ERP AND VALUE CHAIN: (09)

Impacts of ERP on Value Chain (Porter's Value Chain Model), Competitive Advantages of ERP; Future Directions in ERP: New Trends in ERP, ERP to ERP II, ERP and e-business, SOA Factors in ERP; ERP Implementation: Evaluation and Selection of ERP Package, Project Planning, Testing & End User's Training, Post Evaluation and Maintenance, Issues and Challenges in ERP Implementation, Latest ERP Implementation Methodologies; Case Studies

MODULE –V: ERP PROJECT TEAM: (09)

Composition, Organization and Working of ERP Implementation Team, Success and Failure Factors in ERP Project. Post ERP Implementation: Organizational Change Management, Post Implementation Review, Post Implementation Support, ERP Security. Case Studies

V. TEXT BOOKS:

1. ERP Demystified: Leon, Alexis (McGraw-Hill Education).
2. Concepts in Enterprise Resource Planning: Joseph, A. Brady, Ellen, F. Monk and Wangner, Bret J. (Thomson Learning).
3. Enterprise Resource Planning: Concepts and Planning; Garg, V.K. and Venkitakrishnan, N.K.(PHILearning).
4. Enterprise Resource Planning – A Managerial Perspective: DP Goyal (TMH).

VI. REFERENCE BOOKS:

1. Paul Greenberg, CRM at the Speed of Light: Social CRM Strategies, Tools, and Technologies for Engaging Your Customer, McGraw Hill.
2. Alexis Leon, Enterprise Resource Planning, 2nd Edition, McGraw Hill, 2008

VII. WEB REFERENCES:

1. <https://www.goo.gl/gBUrvc>
2. <https://www.goo.gl/9Nahvr>

VIII. E-TEXT BOOKS:

1. [https://ccdc.org/publications/books/Enterprise Resource Planning_Manual.pdf](https://ccdc.org/publications/books/Enterprise%20Resource%20Planning_Manual.pdf)
2. <https://transition.fcc.gov/cyber/cyberplanner.pdf>
3. https://www.amazon.in/dp/B07YG4QSZR/ref=cm_sw_r_apan_glt_2FGRNQAE4AEV5JQRB7?_encoding=UTF8&psc=1.
4. https://www.amazon.in/dp/B084RH7JNC/ref=cm_sw_r_apan_glt_XSZ2G0M4SF8VE5G45NN5?_encoding=UTF8&psc=1.