



RV Institute of Management

**Master of Business Administration (MBA)
Batch 2024 – 26**

Semester III

**23MBA435 – BUSINESS PROCESS MODELING (BPM) AND ENTERPRISE
RESOURCE PLANNING (ERP)**

Course Pack

2025

VISION

To become a world-class management institute of eminence.

MISSION

To nurture Universal Thought Leaders by offering holistic management education fostering Business Intelligence, Health Care, Innovation and Entrepreneurship for Inclusive Growth and Sustainable Development

AND

To provide value added services to Business, Government and Society through Staff Empowerment, Joint Research and Collaborative Engagement.

Program Educational Objectives (PEOs)

- PEO 1: Graduates will be able to demonstrate effective decision making, cognitive flexibility, and problem-solving capability and adapt to the changing global environment
- PEO 2: Graduates will be capable of innovating, starting new entrepreneurial ventures and be a lifelong learner with multidisciplinary research aptitude
- PEO 3: Graduates will be able to think critically; communicate effectively; demonstrate analytical skills, team spirit and leadership qualities
- PEO 4: Graduates will be able to demonstrate professional values, cultural sensitization, ethical behavior and integrity
- PEO 5: Graduates will be responsible global citizens and contribute towards inclusive growth and sustainable development of the society

Program Objectives (POs)

1. Apply knowledge of management theories and practices to solve business problems with required abilities to understand, analyze and communicate global, economic, societal, cultural, legal and ethical aspects of business
2. Foster Analytical and critical thinking abilities for data-driven decision making
3. Ability to develop value based leadership to lead themselves and others in the achievement of organizational goals and contributing effectively to a team environment through effective communication and Negotiation skills
4. Ability to identify business opportunities, frame innovative solutions and launch new business ventures or be an intrapreneur
5. Ability to deal with contemporary issues using multi-disciplinary approach with the help of advanced Management and IT tools and techniques
6. Ability to apply domain specific knowledge and skills to build competencies in their respective functional area
7. Ability to engage in research and consultancy work with cognitive flexibility to create new knowledge and be a lifelong learner
8. Ability to understand social responsibility and contribute to the community for inclusive growth and sustainable development of society through ethical behavior

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Course Plan

Program	Master of Business Administration
Course Code & Name	23MBA435 – BUSINESS PROCESS MODELING (BPM) AND ENTERPRISE RESOURCE PLANNING (ERP)
Semester	Semester III
Hours & Credits	36 Hours, 3 Credits (1 Credit = 10 hours)
Course Anchor	Faculty – Department of Information Systems / Operations Management
Course Facilitators	Faculty of BPM and ERP RV Institute of Management

BUSINESS PROCESS MODELING (BPM) AND ENTERPRISE RESOURCE PLANNING (ERP)

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SEMESTER: III

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Course Syllabus

Course Name: BUSINESS PROCESS MODELING (BPM) AND ENTERPRISE RESOURCE PLANNING (ERP)	Course Code: 23MBA435
Total number of hours: 36 Hrs	Credits: 3
Total Number of Sessions: 36	Hours per Session: 1 hour

Course Description:

This course serves as an introduction to the world of Enterprise Resource Planning and also provides foundation for many disciplines in common business modern information systems. Students will examine how and why an ERP system is implemented and how it is integrated with existing business processes. Students will get to know the impact of ERP on the organisation and how change can be managed. For demonstration, an ERP system such as SAP will be used to experience several business processes.

This course also looks at ways in which business processes can be analysed, redesigned, and improved. Business Process Management (BPM) is concerned with the concepts, methods, and techniques that support the design, administration, configuration, enactment, and analysis of business processes. By taking this course, students will be able to understand business processes from a general management perspective, and learn tools, analytical frameworks and general principles for managing business processes.

Course Outcomes: After successfully completing the course the students will be able to:

- CO1: Evaluate the concepts of Business Process Modeling.
- CO2: Apply different methods for business process modeling in all stages of organization.
- CO3: Comprehend various models of ERP and its role in integrating business functions.
- CO4: Analyze the strategic options for ERP identification and adoption.
- CO5: Apply and evaluate the ERP implementation strategies in E-Commerce industry.

Pedagogy:

This course uses multiple pedagogies including classroom discussion, case-based teaching, interaction with experts, experiential learning, inquiry-based teaching, project-based learning, and simulation-based teaching.

Syllabus

Module 1: Introduction to Business Process Modeling (5 Hours)

- Business processes: What is BPM; The evolution of BPM
- Business process; Process discovery; Process scoping
- Business process modeling as a basis for BPM
- Business process modeling methods and tools: an overview of BPMN and EPC

Module 2: Business Process Modeling Process (8 Hours)

- Business process modelling, business rules and ERP systems implementation
- Simulation modelling and business process analysis
- Setting-up a process support organisation & Change management
- Process improvement methods – overview
- The role of organisational culture in BPM
- Process Benchmarking
- Process Reengineering

Module 3: Introduction to Enterprise Resource Planning (5 Hours)

- Introduction to Enterprise Resource Planning; Benefits of ERP
- Conceptual Model of ERP
- The Evolution of ERP
- The Structure of ERP
- Reasons for the Growth of ERP
- Scenario and Justification of ERP in India
- Evaluation of ERP
- Various Modules of ERP

Module 4: Understanding ERP (9 Hours)

- Overview of Enterprise
- Integrated Management Information System
- Business Modelling
- ERP for Small Businesses
- ERP for Make to Order Companies
- **Business Process Mapping:** Business Process Mapping in ERP; ERP Implementation Process
- **ERP and Related Technologies:** Business Process Re-engineering; Management Information System; Executive Information System (EIS); Decision Support Systems (DSS); Supply Chain Management

Module 5: ERP and E-Commerce (9 Hours)

- Future Directives in ERP
- ERP and Internet
- Critical Factors Guiding Selection and Evaluation of ERP
- Strategies for Successful ERP Implementation
- Critical Success Factors in ERP Implementation
- Failure Factors in ERP Implementation
- Integrating ERP into Organisation
- ERP Software and Tools
- Case Study: SAP R/3 at Tata Steel, Pantaloons, RSST

Teaching Learning Resources:

Recommended Books:

9. Enterprise Systems for Management, Luvai F. Motiwalla and Jeff Thompson, Second Edition, Published by Pearson. ISBN-13: 978-0-13-214576-3.
10. Essential Business Process Modeling, Michael Havey, First Edition, Published by O'Reilly. ISBN: 20099780596555153.
11. Vinod Kumar Garg and Venkitakrishnan N K, "Enterprise Resource Planning Concepts and Practice", Second Edition published by PHI. ISBN: 9788120322547.
12. Joseph A Brady, Ellen F Monk, Bret Wagner, "Concepts in Enterprise Resource Planning", Second Edition published by Thompson Course Technology. ISBN: 9780619216634.

Reference Books:

13. Alexis Leon, "ERP Demystified", Second Edition published by Tata McGraw Hill. ISBN: 9780070656642.
14. Rahul V. Altekar, "Enterprise Resource Planning Theory and Practice", Eighth Edition published by Tata McGraw Hill.
15. Essentials of Business Processes and Information Systems, Simha Magal and Jeffrey Word. ISBN-13: 978-0-470-23059-6.

Supplementary Readings:

16. <https://www.coursera.org/learn/enterprise-systems>
17. www.elibrary.in.pearson.com
18. <https://jgateplus.com>
19. <https://search.ebscohost.com>
20. <https://www.capitaline.com/SiteFrame.aspx?id=1>

CO-PO Mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	3	2	-	3	3	3	1	-
CO2	3	2	-	3	3	3	1	-
CO3	2	3	-	2	2	3	3	-
CO4	2	3	-	2	2	3	3	-
CO5	3	3	-	2	2	3	3	-
Contribution 3-Substantial 2-Moderate 1-Slight - No Co-relation								

BPM and ERP – Session Plan

Module No.	Session No.	Coverage	Pedagogy / Activities	Resource / Reference	Video (Scan QR)
1	1	Overview of course plan; Introduction to BPM: What is BPM; Business process defined; Key characteristics	Interactive class discussion	Havey Ch.1 Pg. 1-14	 Intro to BPM
1	2	The evolution of BPM: from workflow to BPM; Process discovery and process scoping	Interactive class discussion	Havey Ch.1 Pg. 15-30	 BPM Lec 2: BPMN
1	3	Business process modeling as a basis for BPM; Process models and their uses	Discussion	Havey Ch.2 Pg. 32-48	 BPMN 2.0 Nutshell
1	4	Business process modeling methods and tools: Overview of BPMN (Business Process Model and Notation)	Discussion	Havey Ch.2 Pg. 49-64	 BPMN 2.0 Nutshell
1	5	Overview of EPC (Event-driven Process Chain); Comparison of BPMN and EPC; Tools demo	Simulation-based teaching	Havey Ch.2 Pg. 65-78	 BPM Lec 2: BPMN
2	6	Business process modelling, business rules and ERP systems implementation; Modelling conventions	Discussion	Havey Ch.3 Pg. 82-98	 BPMN 2.0 Nutshell
2	7	Simulation modelling and business process analysis; Running what-if scenarios	Simulation-based teaching	Havey Ch.3 Pg. 99-114	 BPM Course Lec 1
2	8	Setting-up a process support organisation; Change management in BPM initiatives	Interactive class discussion	Havey Ch.4 Pg. 116-132	 What is BPR?
2	9	Process improvement methods – overview: Lean, Six Sigma, Kaizen in process context	Discussion	Havey Ch.4 Pg. 133-148	 BPR in 15 mins

2	10	The role of organisational culture in BPM; Resistance to change and enablers of success	Interactive class discussion	Havey Ch.5 Pg. 150-164	 How BPR Works
2	11	Process Benchmarking: types, steps, and industry examples	Discussion	Havey Ch.5 Pg. 165-178	 BPR Examples
2	12	Process Reengineering: principles, steps and outcomes; BPR vs BPI	Discussion	Havey Ch.5 Pg. 179-194	 BPR Simply Explained
2	13	Case Discussion: Business Process Re-engineering at Ford Motor Company	Case Discussion	Industry Case Study	 What is BPR?
3	14	Introduction to ERP: meaning, scope, and benefits; Conceptual Model of ERP	Interactive class discussion	Motiwalla & Thompson Ch.1 Pg. 1-16	 What is ERP?
3	15	The Evolution of ERP: MRP → MRP II → ERP → ERP II; The Structure of ERP	Discussion	Motiwalla & Thompson Ch.1 Pg. 17-32	 Evolution of ERP
3	16	Reasons for the Growth of ERP; Scenario and Justification of ERP in India	Interactive class discussion	Garg & Venkitakrishnan Ch.2 Pg. 34-50	 MRP vs MRP II vs ERP
3	17	Evaluation of ERP: frameworks and criteria	Discussion	Garg & Venkitakrishnan Ch.2 Pg. 51-64	 ERP: Types & Benefits
3	18	Various Modules of ERP: Finance, HR, SCM, Production, Sales; Integration overview	Interactive class discussion	Motiwalla & Thompson Ch.2 Pg. 66-82	 ERP 101 Explained
4	19	Overview of Enterprise; Integrated Management Information System; Business Modelling in ERP	Interactive class discussion	Motiwalla & Thompson Ch.3 Pg. 86-102	 ERP: Types & Benefits

4	20	ERP for Small Businesses: challenges, benefits, and suitable ERP solutions (Odoo, Tally ERP)	Discussion	Garg & Venkitakrishnan Ch.4 Pg. 104-120	 Top ERPs for SMB
4	21	ERP for Make to Order Companies: configuring ERP for custom manufacturing	Discussion	Motiwalla & Thompson Ch.4 Pg. 122-138	 MRP & Intro to ERP
4	22	Business Process Mapping: Business Process Mapping in ERP	Discussion	Motiwalla & Thompson Ch.4 Pg. 139-154	 ERP SAP Case Study
4	23	ERP Implementation Process: phases, timelines, and team roles	Discussion	Motiwalla & Thompson Ch.5 Pg. 155-172	 ERP Lessons Learned
4	24	ERP and Related Technologies: Business Process Re-engineering and MIS	Interactive class discussion	Motiwalla & Thompson Ch.6 Pg. 174-190	 BPR Simply Explained
4	25	ERP and Related Technologies: EIS; Decision Support Systems (DSS); SCM integration	Discussion	Motiwalla & Thompson Ch.6 Pg. 191-208	 ERP: Types & Benefits
4	26	Case Discussion: ERP for Small Businesses – Odoo Deployment at an Indian SME	Case Discussion	Industry Case Study	 Top ERPs for SMB
4	27	Case Discussion: Business Process Mapping and ERP Integration at Pantaloons	Case Discussion	Industry Case Study	 SAP Digital Transform.
5	28	Future Directives in ERP: ERP II, Cloud ERP, AI-enabled ERP; ERP and Internet	Interactive class discussion	Motiwalla & Thompson Ch.7 Pg. 212-228	 Future of ERP
5	29	Critical Factors Guiding Selection and Evaluation of ERP	Discussion	Garg & Venkitakrishnan Ch.6 Pg. 230-246	 ERP Selection Factors

5	30	Strategies for Successful ERP Implementation: Big Bang vs Phased rollout	Discussion	Motiwalla & Thompson Ch.8 Pg. 248-264	 ERP Lessons Learned
5	31	Critical Success Factors in ERP Implementation: top management support, user training, change management	Interactive class discussion	Motiwalla & Thompson Ch.8 Pg. 265-280	 ERP: 7 CSFs
5	32	Failure Factors in ERP Implementation: cost overruns, scope creep, resistance	Discussion	Garg & Venkitakrishnan Ch.7 Pg. 282-298	 SAP Failure at Lidl
5	33	Integrating ERP into Organisation: post-go-live support; ERP Software and Tools	Discussion	Motiwalla & Thompson Ch.9 Pg. 300-316	 CSFs of ERP
5	34	Case Discussion: SAP ERP Implementation at Tata Steel	Case Discussion	Industry Case Study	 ERP Case Studies
5	35	Case Discussion: SAP R/3 Implementation at RSST – Challenges and Critical Success Factors	Case Discussion	Industry Case Study	 Successful ERP Impl.
5	36	Case Discussion: ERP and E-Commerce Integration – Digital Transformation; Course Wrap-up	Case Discussion	Industry Case Study	 ERP & E-Commerce

Course Evaluation Plan

Component	Description	Units	Marks Allotted	Timeline
End Term	End Term Exam – All Modules 1–5	All Modules	50	At the end of the semester
CIA-I	Mid-Term Test – Modules 1, 2 & 3	Modules 1, 2 & 3	20	After completion of 2–3 modules
CIA-II	Attendance and Class Participation	NA	5	At the end of the semester
CIA-III	Quiz – Modules 1–5 (10 questions × 1 mark per module)	All Modules	5 (of 50)	After each module
CIA-IV	Remaining assignments (Quiz, Individual assignment, Cap-Stone project, Major or minor project, Group assignments etc.)	All Modules	25	Full Semester
Total			100	-

EVALUATION DESCRIPTION

COMPONENTS OF CIA-I (CO1, CO2 and CO3) – 20 Marks

Mid Term Exam Syllabus: Module I, II and III

Pattern:

- The evaluation will be through short theory questions, long theory questions, and case-based analytical questions.
- Duration: 1.5 hours
- Closed book exam with invigilation
- Total of 50 marks converted to 20

COMPONENTS OF CIA-II – 5 Marks

Attendance and Class Participation

Pattern:

- Contribution to case discussion, expert interaction sessions, and simulation exercises
- Consistent attendance throughout the course
- Active participation in classroom discussions, inquiry-based sessions, and project activities

COMPONENTS OF CIA-III – 5 Marks

Quiz (Syllabus Module 1–5) – 5 Marks

- There will be 10 questions from each module carrying 1 mark each. Total of 50 marks will be converted to 5 marks.

COMPONENTS OF CIA-IV – 25 Marks

Capstone Project: BPM and ERP Implementation Analysis (Modules I–V)

Assignment Description:

- Individual / Group project – students select a real-world organisation and analyse its business processes and ERP system implementation
- Students must create BPMN process maps for at least two business processes (e.g., Order-to-Cash, Procure-to-Pay) and assess the organisation's ERP adoption strategy, success factors, and challenges
- Students prepare a comprehensive report documenting as-is process maps, ERP system review, recommendations for process improvement, and a roadmap for digital transformation

Expected Outcomes:

- Ability to create and analyse BPMN and EPC process models for real-world business scenarios
- Hands-on understanding of ERP modules, implementation strategies, and critical success factors using frameworks from SAP, Oracle, and Odoo
- Development of systems thinking, analytical reasoning, and professional report-writing / presentation skills

Rubrics:

S.No.	Parameters	Marks
1	Problem Identification and BPM / ERP Framework Selection	5
2	Process Mapping using BPMN / EPC and Application of ERP Concepts	8

3	Analysis, Strategic Recommendations and Business Insights	7
4	Quality of Report / Presentation	5
5	Total	25

Prepared by

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Course Faculty – BPM and ERP

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