



Course Specification

(Bachelor)

Course Title: **Enterprise Resource Planning Systems**

Course Code: **IS1451 ERP**

Program: **Bachelor of Science in Information Systems**

Department: **Information Systems**

College: **College of Computer and Information Sciences**

Institution: **Imam Mohammed Ibn Saud Islamic University**

Version: **3**

Last Revision Date: **03 February 2026**

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A. General information about the course:

1. Course Identification

1. Credit hours: 3 credit hours (lectures:3)

2. Course type

- A. ☐ University ☐ College ☐ Department ☐ Track ☐ Others
- B. ☐ Required ☒ Elective

3. Level/year at which this course is offered: (Level 7/4th Year.)

4. Course General Description:

Modern enterprise software requires integrated data, real-time access, industry best practices and a focus on cross-functional processes. This course is about ERP systems, the information systems paradigm of organizational computing today. This course will cover the topics that students need in order to understand all the important facets of ERP systems including: planning, package selection, and implementation issues, and core functionality, technical architecture, security and risk, and emergent technologies.

5. Pre-requirements for this course (if any):

IS1235 System Analysis and Design
ACC12xx – ACC1250 Principles of Accounting & Financial Reporting

6. Co-requisites for this course (if any):

N/A

7. Course Main Objective(s):

The target of the course is to introduce concepts related to ERP systems. In this context, issues like ERP technologies, BPR, core modules of ERP, activities performed during implementation of ERP systems will be discussed. In order to give practical exposure to students, open source ERP “ODOO” will be used.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	3 hours/week	100%
2	E-learning		
3	Hybrid Traditional classroom		





No	Mode of Instruction	Contact Hours	Percentage
	• E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	45
2.	Laboratory/Studio	
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		45

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Identify the fundamental definitions, concepts, and technologies of Enterprise Resource Planning (ERP) systems.	K1 (P)	Class lectures	Quiz1, Midterm Exam, Final Exam
1.2	Explain the relationship between Business Process Reengineering (BPR) and ERP, including their impact on organizational processes.	K2 (P)	Class lectures, case discussions	Midterm Exam, Final Exam, Assignment1
1.3	Describe the major stages, activities, and managerial considerations	K3 (P)	Class lectures	Final exams, Assignment2





Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
	involved in the ERP life cycle.			
2.0	Skills			
2.1	Analyze business requirements and interpret process flows for ERP-based system design using ODOO.	S1 (P)	Lectures with practical sessions	Project
2.2	Apply ERP tools and techniques to configure and develop business modules in ODOO.	S2 (P)	Practical sessions, demonstrations	Project
2.3	Design and implement an integrated business system solution using ODOO ERP modules.	S3 (P)	Class lectures with hands-on practice	Project
3.0	Values, autonomy, and responsibility			
3.1	Work effectively in teams to plan, design, and implement ERP-based solutions in ODOO.	V1 (P)	Group discussions, teamwork	Project
3.2	Demonstrate ethical, responsible, and professional behavior when handling ERP data, system configurations, and business processes.	V2 (P)	Case studies, class discussions	Project

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Enterprise Resource Planning Systems	3
2.	ERP Technology	3
3.	ERP and Business Process Reengineering	6
4.	Systems Diagramming and the Process Map	6
5.	ERP Life Cycle: Planning and Package Selection	6
6.	ERP Life Cycle: Implementation and Operation and Maintenance	6
7.	ERP Sales, CRM and Knowledge Management	3





8.	Sustainable Enterprise Resource Planning (S-ERP)	3
9.	ODOO: Introduction, Sales Management, CRM, Purchase, Manufacturing, Accounting, Finance and HR	9
Total		45

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	4	10%
2.	Midterm Exam	7	20%
3.	Assignments	5,11	10%
4.	Group Project	14	20%
5.	Final Exam	16	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Working with ODOO. By Gregory R. Moss. ISBN-13: 978-1-78439-455-4, 2015. Sustainable Enterprise Resource Planning (S-ERP) for Industry 4.0, ISBN 978-981-96-7734-4, 2025.
Supportive References	Modern ERP: select, implement & use today's advanced business systems, Marianne Bradford, 2nd edition, 2014, ISBN-13, 9780557434077
Electronic Materials	Extend the Functionalities of ERP with Blockchain Integration
Other Learning Materials	NA

2. Required Facilities and equipment





Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	<i>Lecture room with:</i> 1. <i>A projector connected to a PC preferably with Internet connection</i> 2. <i>Sliding board</i> 3. <i>Computer lab</i>
Technology equipment (projector, smart board, software)	Computer lab will be used in selected weeks. ODOO must be installed on computers.
Other equipment (depending on the nature of the specialty)	N/A

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect using course evaluation survey
Effectiveness of Students assessment	Faculty members	Direct method using TOS file
Quality of learning resources	Students and Faculty	Indirect using course evaluation survey and faculty survey
The extent to which CLOs have been achieved	Faculty members	Direct method using TOS file
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	IS CURRICULUM APPROVAL & DEVELOPMENT COMMITTEE IS QAC / / IS COUNCIL
REFERENCE NO.	
DATE	

