Course Specification
(Bachelor)

Course Title:	Selected Topics in Information Systems
Course Code:	IS1457
Program:	Bachelor of Information Systems
Department:	Information systems
College:	College of Computer and Information Sciences
Institution:	Imam Mohammad Ibn Saud Islamic University
Version:	2
Last Revision Date:	13-07-2025

Approved: 24/08/2025

Table of Contents

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 6/Third Year					
4. Course general Description:					
This course provides an in-depth study of selected topics in Information Systems. The topics covered reflect emerging trends in the field, focusing on Cloud Computing, Big Data, Business Intelligence, and Decision Support Systems (DSS). The course equips students with practical and theoretical knowledge in distributed computing, e-commerce systems, business operations management, change management, and knowledge management. Additionally, it covers database management, data mining, and specialized applications like Health Information Systems (HIS) and Geographic Information Systems (GIS). Students will analyze case studies, engage in discussions, and develop projects related to modern enterprise information systems.					
5. Pre-requirements for this course (if any)**:**					
IS1235 – System Analysis and Design					
6. Co-requisites for this course (if any)**:**					
No Co-requisites					
7. Course Main Objective(s):					

- To introduce students to advanced and emerging topics in Information Systems.
- To provide a comprehensive understanding of cloud computing technologies and their impact on business operations.
- To explore the principles and applications of Big Data analytics and its role in decision-making.
- To develop skills in business intelligence, data mining, and knowledge management.

- To analyze real-world applications of selected topics through case studies and projects.

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 • 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 CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Explain fundamental concepts of cloud computing, big data, and business intelligence.	K2(P)	Lectures, Case Studies	Quizzes, Final
1.2	Describe the role of decision support systems and knowledge	K3(I)	Lectures, Discussions	Midterm, Project

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
	management in organizations.			
2.0	**Skills**			
2.1	Apply data mining and database management techniques to analyze business problems.	S3(P)	Lectures, Case Studies	Assignments, Quizzes
2.2	Develop solutions for managing enterprise information systems, including e-commerce and business operations	S1(M)	Lectures, Case Studies	Project, Final
3.0	**Values, autonomy, and responsibility**			
3.1	Demonstrate critical thinking and problem-solving skills in managing large-scale data.	V1(I)	Lectures, Case Studie	Project
3.2	Exhibit ethical responsibility and lifelong learning in the application of digital business technologies.	V3(M)	Reflections, Group Discussions, Self-study	Reflective Reports, Peer Evaluation

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Cloud Computing	**3**
2.	Big Data and its Applications	**4**
3	E-commerce and Digital Business Strategies	**4**
4	Business Operations and Change Management	**3**
5	Knowledge Management and Decision Support Systems	**4**
6	Business Intelligence and Data Mining	**4**
7	Database Management Systems and Optimization	**4**
8	Health Information Systems	**4**

9	Geographic Information Systems (GIS)	4
10	Emerging Topics in Information Systems	4
11	Research Trends and Future Directions in IS	4
12	Course Review and Project Presentations	3
Total		45

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quiz	4,11	10%
2.	Midterm Exam	8	20%
3.	Assignment	7	10%
4	Group Project	15	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	Marakas, G. M., & O'Brien, J. A. (2017). *Introduction to Information Systems. McGraw-Hill. Laudon, K. C., & Laudon, J. P. (2020). *Management Information Systems: Managing the Digital Firm. Pearson.
Supportive References	Efraim Turban, Carol Pollard, Gregory Wood "Information Technology for Management: On-Demand Strategies for Performance, Growth and Sustainability", 11th Edition (2018), Wiley
Electronic Materials	Blackboard
Other Learning Materials	N/A

2. Required Facilities and equipment

Items	Resources
facilities	1. At least 30 seats

Items	Resources
(Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	**2. A projector connected to a PC preferably with Internet connection** **3. Sliding board**
Technology equipment (projector, smart board, software)	
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 Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

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