هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

اعتماد
NCAAA

2024
TP-153

Course Specification
(Bachelor)

Course Title:	**Information Systems Analysis and Design**
Course Code:	**251CIS-3**
Program:	Information Systems
Department:	**Department of Information Systems**
College:	College of Computer Science and Information
Institution:	**Najran University**
Version:	*Course Specification Version Number*
Last Revision Date:	

Table of Contents

A. General information about the course:

1. Course Identification

1. Credit hours: ( )					
3 (3,0,0)					
2. Course type					
A.	☐University	☐College	☒ Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (Level 13 / Year 4)					
4. Course General Description:					
The course includes the fundamental concepts of information system analysis and design. The methods and skills needed for a system analyst to analyze, design, implement and documents computer-based systems. It addresses the main role of the systems analyst, and the techniques and technologies used in analysis, design and managing information system project. The structured software development life cycle approach, modeling techniques and development phases are comprehensively discussed and reviewed. The course covers also, how to collect system requirements using different methods. The Object-Oriented Approach to Design, Use Case Realization, and Developing class Diagram, Developing Sequence Diagram, Developing activity Diagram and Designing user Interface. A project is given to all students that should cover analysis and design phases of a relatively data-oriented business case; with emphasis on data modeling (ER diagrams), process modeling (DFDs), and architectural system design issues (DD, HIPO, IPO).					
5. Pre-requirements for this course (if any):					
6. Co-requisites for this course (if any):					
7. Course Main Objective(s):					
To help students understand how system analysts solve business problems through analyzing the requirements of information systems and designing such systems by applying analysis and design techniques.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	45	100%
2	E-learning		

No	Mode of Instruction	Contact Hours	Percentage
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 PLOs aligned with the program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	Demonstrate the fundamental concepts of information systems analysis and design	K2, K3	Lectures, Group discussion	Quiz, Midterm, Final Exam.
1.2	Describe the role of system analysts in the information system development	K2, K3	Lectures	Midterm, Final Exam.
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2.0	**Skills**			
2.1	Manage the information system project	**K3,S1**	Cooperative and reciprocal learning Lectures, Group discussion.	Assignment, mini project, Midterm exam, Final Exam.
2.2	Collect system requirements using different methods	**S1**	Cooperative and reciprocal learning Lectures, Group discussion.	Midterm, Final Exam.

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
2.3	Analysis system using different implementation methods	**S1**	Case study, Group discussion, cooperative and reciprocal learning	Assignment, mini project, Midterm exam, Final Exam.
3.0	**Values, autonomy, and responsibility**			
3.1	Develop teamwork skills in the implementation of designing databases.	S2, C1	Group discussion, cooperative and reciprocal learning, Case study.	Mini projects.
3.2	Recognize the need for system analysts in developing Computer Based Information Systems	S3, C3	Cooperative and reciprocal learning, Case study.	Assignments, mini projects
…				

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction	3
2.	System Development in an Organizational Context	3
3.	Managing the Information System Projects	3
4.	Determining System Requirements	3
5.	Analyzing System Process Requirements	3
6.	Gantt Chart, PERT diagram, Critical Path management	3
7.	Entity relationship diagram (ERD)	3
8.	object Oriented Analysis and Design: Use cases	3
9.	Object Oriented Analysis and Design: Activity Diagrams	3
10.	Object Oriented Analysis and Design: Sequence Diagrams	3
11.	Object Modeling: Class Diagrams	3
12.	Database, Forms & Reports Design	3
13.	Interface & Dialogue Design	3
14.	Implementing and Maintaining the System	3
15.	Review	3
Total		**45**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Midterm	5	20
2.	Quiz 1	3	5
3.	Quiz 2	7	5
4.	Assignment 1	8	5
5.	Assignment 2	9	5
6.	Report/Presentation	10	10
7.	Final Exam	11-13	50
8.	Total		100

*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	Essentials of Systems Analysis & Design - 6th Edition - Joseph S. Valacich-2
Supportive References	Systems Analysis and Design", (latest edition), Kendall & Kendall, Prentice-Hall Modern Systems Analysis & Design- Jeffrey Hpffer, Joey George, Joseph Valacich, 6th edition, Pearson, (Available in Prince Mishal Library)
Electronic Materials	
Other Learning Materials	

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Lecture Rooms with 45 seats and a whiteboard
Technology equipment (projector, smart board, software)	Multimedia Projector
Other equipment (depending on the nature of the specialty)	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect
Effectiveness of Students assessment	Instructor	Classroom Discussions
Quality of learning resources	Instructor	Questionnaire
The extent to which CLOs have been achieved	Instructor	Direct
Other		

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	**17th Department Council**
REFERENCE NO.	**14460810-0976-00017**
DATE	**10/02/2025**