Course Specifications

Course Title:	Information Systems Analysis and Design
Course Code:	251CIS-3
Program:	Information Systems
Department:	Information Systems
College:	Computer Science and Information Systems
Institution:	Najran University

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A. Course Identification

1. Credit hours: 3 (3, 0, 0)
2. Course type **a.** University [ ] College [ ] Department [√] Others [ ] **b.** Required [√] Elective [ ]
3. Level/year at which this course is offered: Level 4
4. Pre-requisites for this course (if any)**:** N/A
5. Co-requisites for this course (if any)**:** N/A

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	45	%100
2	**Blended**		
3	**E-learning**		
4	**Correspondence**		
5	**Other**		

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	**Lecture**	45
2	**Laboratory/Studio**	
3	**Tutorial**	
4	**Others** (specify)	
	Total	45
Other Learning Hours*		
1	**Study**	30
2	**Assignments**	15
3	**Library**	15
4	**Projects/Research Essays/Theses**	15
5	**Others** (specify)	
	Total	75

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course 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).

2. Course Main Objective

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.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge**:	
1.1	Demonstrate the fundamental concepts of information systems analysis and design	K2, K3
1.2	Describe the role of system analysts in the information system development	K2, K3
2	**Skills:**	
2.1	Manage the information system project	K3, S1
2.2	Collect system requirements using different methods	S1
2.3	Analysis system using different implementation methods	S1
3	**Competence:**	
3.1	Develop teamwork skills in the implementation of designing databases.	S2, C1
3.2	Recognize the need for system analysts in developing Computer Based Information Systems.	S3, C3

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. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
1.1	Demonstrate the fundamental concepts of information systems analysis and design.	Lectures, Group discussion	Quiz, midterm, final exam, homework, assignment.
1.2	Describe the role of system analysts in the Information system development.	Lectures, Group discussion	Quiz, midterm, final exam, homework, assignment.
…			
2.0	**Skills**		
2.1	Manage the information system project.	Lectures, Group discussion, cooperative and reciprocal learning	Quiz, midterm, final exam, homework, assignment presentation.
2.2	Collect system requirements using	Lectures, Group	Quiz, midterm, final

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	different methods.	discussion, cooperative and reciprocal learning.	exam, homework, assignment, presentation.
2.3	Analysis system using different implementation methods.	Lectures, Group discussion, cooperative and reciprocal learning, Case study.	Quiz, midterm, final exam, homework, assignment, presentation, mini project.
3.0	**Competence**		
3.1	Develop teamwork skills in the implementation of designing databases.	Lectures, Group discussion, cooperative and reciprocal learning, Case study.	Quiz, midterm, final exam, homework, assignment, presentation, mini project.
3.2	Recognize the need for system analysts in developing Computer Based Information Systems.	Lectures, Group discussion, cooperative and reciprocal learning, Case study.	Quiz, midterm, final exam, homework, assignment, presentation, mini project.
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Quizzes	2, 7	10 %
2	Report / Presentation/Assignment/Homework	8	10 %
3	Mid Term-1 Exam	6	15 %
4	Mid Term-2 Exam	11	15 %
6	Final Exam	16	50%
7			
8			

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

Weekly office hours =10

Weekly academic advising hours = 4

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	1. Essentials of Systems Analysis & Design - 6th Edition Joseph S. Valacich-2

Essential References Materials	2. "Systems Analysis and Design", (latest edition), Kendall & Kendall, Prentice-Hall 3. Modern Systems Analysis & Design- Jeffrey Hpffer, Joey George, Joseph Valacich, 6th edition, Pearson, (Available in Prince Mishal Library)
Electronic Materials	
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Cleanliness of the class rooms should maintain in a regalar basis
Technology Resources (AV, data show, Smart Board, software, etc.)	Data Show needs to maintenance regularly
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
By the end of each semester, students give their opinions about many factors in the course. They give feedback About the teaching strategies, assessment methods, textbooks, instructor, etc. Evaluation of CLOs can be used to compare the improvement from previous evaluation. Improvement plan based on the online course survey must be prepared. Action plan based on the CLOs achievements must be prepared.	Institution (By the end of each semester, students give opinions on satisfactions of the course)	Online course survey (indirect assessment)
A course survey is distributed to students to take their opinions about the CLOs. Evaluation of CLOs can be	Instructor (A course survey is distributed to students to take their opinion)	Feedback about Course Learning Outcomes (CLOs) (indirect assessment)

Evaluation Areas/Issues	Evaluators	Evaluation Methods
used to compare the improvement from previous evaluation. Improvement plan based on the online course survey must be prepared. Action plan based on the CLOs achievements must be prepared.		
Assessment of SOs through CLOs Evaluation of CLOs can be used to compare the improvement from previous evaluation. Improvement plan based on the online course survey must be prepared. Action plan based on the CLOs achievements must be prepared.	Instructor (through various teaching strategies)	Assessment of SOs through CLOs (direct assessment)

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Department Council
Reference No.	Session No. 10 (441-38-43300)
Date	17/02/2020