Course Specification
(Bachelor)

Course Title:	Systems Analysis and Design
Course Code:	271 CIS -3
Program:	information system
Department:	Computer
College:	Applied collage
Institution:	Najran University
Version:	1
Last Revision Date:	2/10/2024

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A. General information about the course:

1. Course Identification

1. Credit hours: (3)(2 Theoretical +2 Practical)					
2. Course type					
A.	☐University	☐College	☒ Department	☐Track	☐Others
B.	☒ Required		☐Elective		
3. Level/year at which this course is offered: (Level: 3 rd / Year: 2)					
4. Course General Description:					
This course covers the fundamental concepts of information system analysis and design. The methods and skills needed system analyst to analyze, design, implement and documents computerbased systems. The structured software development life cycle approach, modeling techniques and development phases. ER diagrams, process modeling (DFDs) Object-Oriented Approach to Design, Use Case Realization, and Developing class Diagram, Developing Sequence Diagram, Developing activity Diagram and Designing user Interface.					
5. Pre-requirements for this course (if any)**:**					
There isn't any Pre-requirements.					
6. Co-requisites for this course (if any)**:**					
There isn't any Co-requisities.					
7. Course Main Objective(s):					
The course aims to provide a detailed presentation of the components of information systems development projects and the roles and skills of a systems analyst and project manager in systems development.					

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	56	95 %
2	E-learning		5%
3	Hybrid • Traditional classroom • E-learning		
4	Distance learning		100 %

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	28
2.	**Laboratory/Studio**	28
3.	**Field**	
4.	**Tutorial**	
5.	**Others (specify)**	
Total		56

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	Describe the duties of a systems analyst and information systems project manager	K3=p	Lectures/discussions in forums/seminars	Discussionbased evaluation Practical tests Application duties research
1.2	Define the basic concepts of systems analysis and design			
1.3	Understand the models and algorithms used in systems analysis and design			
2.0	**Skills**			
2.1	Apply systems analysis and design models in the development of information systems	S3=I	Discussion and dialogue style / problem solving behavior / scientific statement style / workshop style / group activities / cooperative education / case study style	Tests and assignments
2.2	Analyze, design and build information systems develop of applied information systems			
3.0	**Values, autonomy, and responsibility**			

Code	Course Learning Outcomes	Code of PLOs aligned with the program	Teaching Strategies	Assessment Methods
3.1	The student is committed to work ethics in the work environment	**V1=1**	Individual and group activities cooperative education Worksheet	Note cards
3.2	The student is Communicates effectively in writing and orally			

C. Course Content

No	List of Topics	Contact Hours
1.	systems development environment Practical introduction to UML	**4** **4**
2.	Success as a Systems Analyst Practical UML system environment	**4** **4**
3.	managing information systems project Practical introduction to the components of the UML system	**2** **2**
4.	Automated tools for systems development Practical use case in UML	**2** **2**
5.	Identification and selection of systems development projects Practical Class Diagram in UML	**2** **2**
6.	mid-term exam Lab:review	**2** **2**
7.	Initiating and planning a systems development project Practical sequence diagram in UML	**2** **2**
8.	system requirements Practical Activity Diagram in UML	**2** **2**
9.	Structuring information systems requirements Practical User Interface Design	**2** **2**
10.	Designing database for systems development Practical User Interface Design	**2** **2**
11.	Systems Implementation and maintenance Practical linking UML components to develop an integrated system	**2** **2**
12.	Review practical exam	**2** **2**
Total		**56**

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
	Assignments , quizzes Course projects	During semester	**10%**
	Midterm exam	**8**	**20%**
	Practical exam	**14**	**20%**
	The final exam	**End of semester**	**50%**

*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	Modern Systems Analysis and Design (7th Edition) 7th Edition by Jeffrey A. Hoffer (Author), Joey George (Author), Joseph S. Valacich (Author)
Supportive References	
Electronic Materials	**http://lms.nu.edu.sa/webapps/portal/frameset.jsp**
Other Learning Materials	**http://lib.nu.edu.sa/DigitalLibbrary.aspx**

2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	A classroom equipped with a projector (image and sound) and a smart board
Technology equipment (projector, smart board, software)	Business automation lab equipped with computers and connected to the Internet
Other equipment (depending on the nature of the specialty)	Electrical connections to use when necessary

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	students	Questionnaires
Effectiveness of Students assessment	Faculty members / quality committee / peer reviewer	Direct observation/peer review/correction of a sample by another member of a similar programmer

Assessment Areas/Issues	Assessor	Assessment Methods
Quality of learning resources	Faculty members and leaders/students	Achievement file / typical tests and answers / assessments and assignments / questionnaires
The extent to which CLOs have been achieved	Planning and curricula committee/students/faculty members	Expert pinion /questionnaires/ workshops
Other	Students and faculty members	Questionnaires/note card

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

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	
REFERENCE NO.	
DATE	