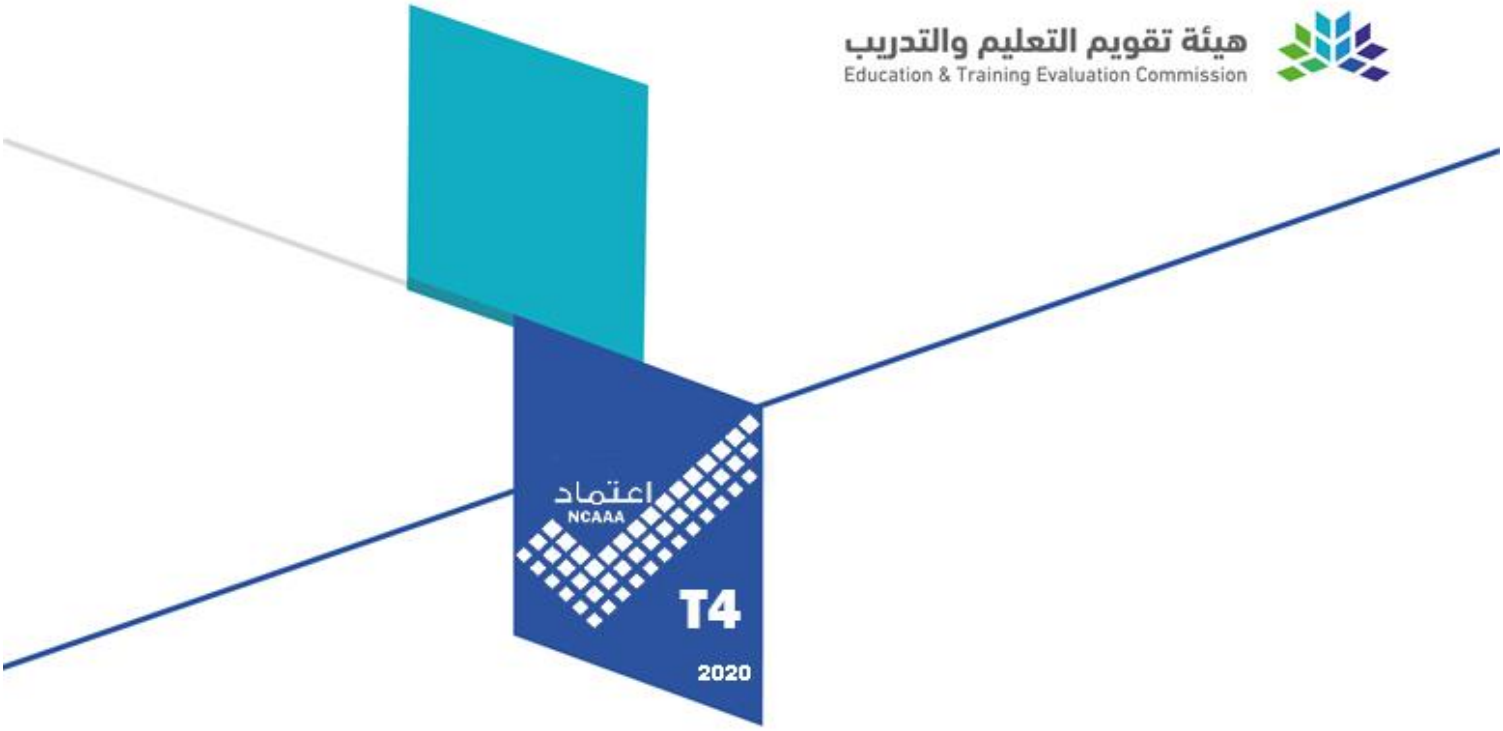
الرقم: ٦٦/١٨٨٣١ التاريخ: ١٤٤٤/٠٥/١١ عدد المرفقات: *

هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission



Course Specifications

Course Title:	System Analysis & Design
Course Code:	**IS413**
Program:	Information Technology
Department:	**IT**
College:	**CCIS**
Institution:	**Majmaah University**

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A. Course Identification

1. Credit hours:
2. Course type **a.** University ☐ College ☐ Department ☑ Others ☐ **b.** Required ☑ Elective ☐
3. Level/year at which this course is offered: 10
4. Pre-requisites for this course (if any)**: CS312**
5. Co-requisites for this course (if any)**:**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**		
2	**Blended**		
3	**E-learning**	44	100%
4	**Distance learning**		
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	33
2	**Laboratory/Studio**	
3	**Tutorial**	11
4	**Others** (specify)	
	Total	44

B. Course Objectives and Learning Outcomes

1. Course Description

This course is concerned with the fundamental knowledge, methods and skills needed to analyses, design and implement computer-based systems. It addresses the role of the systems analyst, and the techniques and technologies used. The structured software development life cycle approach, modelling techniques (e.g., Entity-Relationship Models) and development phases are comprehensively discussed and reviewed. In modelling techniques, process models (e.g., Data Flow Diagrams), information models, system architecture models, and object-oriented models are thoroughly described.

2. Course Main Objective

To focus on the concepts, skills, methodologies, techniques, tools, and perspectives essential for systems analysts. The exposure to object oriented and use-case driven, will require students to go through the steps of system analysis and design to solve a real-life business problem.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge and Understanding**	
1.1	CLO1- To understand Information Systems their basic components, types and the key elements involved in the analysis, design & development of information Systems.	S4
1.2	CLO4 - Students understand the importance of analyzing and designing ethically and legally	K2
1.3		
1...		
2	**Skills :**	
2.1	SO(6)Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of	S6
2.2	Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements	S2
2.3		
2...		
3	**Values:**	
3.1	CLO2-Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline	S5
3.2	CLO3-Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles	S4
3.3		
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Introduction Fundamental knowledge, methods and skills needed to analyze, design and implementation of information systems	3
2	Role of the systems analyst, and the techniques and technologies used The structured software development life cycle approach	3
3	Modelling techniques, process models - Data Flow Diagrams	6
4	Modelling techniques - Entity-Relationship Models	3
5	Making Forms and Reports	3
6	Business Strategies and solutions	3
7	Database design phase	8
8	Introduction to OO Modelling	6
9	Use case models	3
10	Data base modeling	3
11	Implementation	3
Total		44

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 and Understanding**		
1.1			
1.2			
…			
2.0	**Skills**		
2.1	CLO1- To understand Information Systems their basic components, types and the key elements involved in the analysis, design & development of information Systems.	Classroom Teaching	Quiz, Mid Exam, Final Exam
2.2	CLO2 - An understanding of processes that support the delivery and management of information systems within a specific application environment.	Classroom Teaching	Quiz, Mini Project, Mid Exam, Final Exam
…			
3.0	**Values**		
3.1	CLO3 - A thorough understanding of the project handling, modelling techniques, business strategies and documentation involved in developing the information systems	Classroom Teaching	Project, Mid Exam, Final Exam
3.2			
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments	2,4,6 & 8	20%
2	Mid	5	20%
3	Quiz	2 & 6	20%
4	Final	12	40%
5			
6			
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 :

- Faculty members are assigned some students in the corresponding department for academic advising.
- Students can meet the faculty during advising hours or Office hours or even making appointments via email.

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- Faculty create **telegram** channel which use for discussion and inquiry 24/7

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	System Analysis & Design by Kendall & Kendall Essentials of System Analysis & design by Valacich, George, Hoffer
Essential References Materials	Professionals guide to System Analysis (McGraw Hill Software Engineering Series)
Electronic Materials	SDL , ACM Library , and PowerPoint Presentation
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Blackboard/ Telegram/ Email
Technology Resources (AV, data show, Smart Board, software, etc.)	AV, data show, Smart Board,
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
Effectiveness of teaching and assessment	Students/ HoD	Indirect/ Direct /
Extent of achievement of course learning outcomes	Students/ HoD	Indirect/ Direct /
Quality of learning resources	HoD	Direct

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)

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H. Specification Approval Data

Council / Committee	
Reference No.	
Date	