COURSE DESCRIPTIONS

Faculty	Science and Information Technology				
Department	Software Engineering			**NQF level**	6
Course Title	System Analysis and Design	**Code**	503381	**Prerequisite**	
Credit Hours	3	**Theory**	3	**Practical**	0
Course Leader	Dr. Arwa Zabian	**email**	arwa@jadara.edu.jo		
Lecturers	Dr. Arwa Zabian	**emails**	azabian@hotmail.com		
Lecture time	1.00-2.30	**Classroom**	Distance learning		
Semester	Second	**Production**		**Updated**	2020-2021
Awards	Bachelor Degree			**Attendance**	Fulltime

Short Description
This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/OOM tools, and system development life cycle phases. Upon completion, students should be able to analyze a problem and design appropriate solution using a combination of tools and techniques.
Course Objectives
Upon completion of this course, students should be able to: Understand what does mean system and its components Analyze any existent system, define the system components Identify the requirements needed for any system Define the relationships between the system components, design new systems and implements their plans

Learning Outcomes
A. Knowledge - Theoretical Understanding
a1: Define and describe the five phases of the system development life (K1) a2: How systems analysts interact with users, management, and other information systems professionals (K3)
B. Knowledge - Practical Application
a3: Develop data flow diagrams and decision tables (K4)
C. Skills - Generic Problem Solving and Analytical Skills
b1: Take part in solving a wide range of problems related to the analysis, design and construction of information systems (S1)
D. Skills - Communication, ICT, and Numeracy

E. Competence: Autonomy, Responsibility, and Context
Teaching and Learning Methods
Distance Learning
Assessment Methods
By quizzes, home works and exams

Course Contents					
Week	**Hours**	**CLOs**	**Topics**	**Teaching & Learning Methods**	**Assessment Methods**
1,2	6	a1	System analysis fundamentals , system role and development methodologies	Distance learning	quiz
3,4	6	a2	Understanding and modeling organizational systems , use case modeling , UML methodology	Distance learning	quiz
5	3	a1	Project management	Distance learning	assignment
6	3	a1	Information gathering :interactive methods, interviewing , JAD, using questionnaires	Distance learning	quiz
7	3	a3, a1, a2	System development models waterfall, big-bang , V-model, incremental , iterative, spiral prototype	Distance learning	Mid Term
8	3	a3	Agile modelling and prototyping	Distance learning	quiz
9	3	a3	The analysis process: using data flow diagrams	Distance learning	quiz
10	3	b1	Process specification and structured decisions	Distance learning	
11	3	b1	Object oriented system analysis and design using UML	Distance learning	Project (if possible)
12 13	6	b1	designing accurate data entry procedure	Distance learning	
14 15	6	b1	quality assurance and implementation	Distance learning	
16	2	a1,a2, a3,b1	Final exam	Online exam	Final exam

Infrastructure	
Textbook	**System Analysis and Design, Kenneth E. Kendall, Julie E Kendall,** Pearson, 2017,10th
References	**ISBN-10:** 0-273-78710-1
Required reading	
Electronic materials	**Available on : http://elearning.jadara.edu.jo/CourseContent/index/10765/**
Other	

Assessment Method		**Grade**	**a1**	**a2**	**a3**	**b1**
First (Midterm)		30	10	10	10	
Second (if applicable)						
Final Exam		50	10	10	10	20
Coursework		20	5	5	5	5
Coursework assessment methods	Assignments					5
	Case study					
	Discussion and interaction					
	Group work activities					
	Lab tests and assignments					
	Presentations					
	Quizzes	20	5	5	5	
Total		100	25	25	25	25

Plagiarism
Plagiarism is claiming that someone else's work is your own. The department has a strict policy regarding plagiarism and, if plagiarism is indeed discovered, this policy will be applied. Note that punishments apply also to anyone assisting another to commit plagiarism (for example by knowingly allowing someone to copy your code). Plagiarism is different from group work in which a number of individuals share ideas on how to carry out the coursework. You are strongly encouraged to work in small groups, and you will certainly not be penalized for doing so. This means that you may work together on the program. What is important is that you have a full understanding of all aspects of the completed program. In order to allow proper assessment that this is indeed the case, you must adhere strictly to the course work requirements as outlined above and detailed in the coursework problem description. These requirements are in place to encourage individual understanding, facilitate individual assessment, and deter plagiarism.