جامعـة الـزيتونــة الأردنيــة
Al-Zaytoonah University of Jordan
كلية العلوم وتكنولوجيا المعلومات
Faculty of Science and Information Technology

" عراقة وجودة"
"Tradition and Quality"

Detailed Course Description - Course Plan Development and Updating Procedures/ Computer Information Science Department	QF01/0408-3.0E

Faculty	Science and Information Technology	Department	Computer Science
Course Number	**0112353**	**Course Title**	**System Analysis and Design** تحليل و تصميم النظم الحاسوبية
Number of Credit Hours	**3**	**Pre-Requisite/Co-Requisite**	**Data Base (1) (0112251)**

Brief Course Description

This course introduces the students to the concepts and skills of system analysis and design. It includes expanded coverage of data flow diagrams, data dictionary, and process specifications. This course aims to as to introduce variety of new software used by analysts, designers to manage projects, analyze and document systems, design new systems and implement their plans.

	Course Goals and Learning Outcomes	
Goal 1	**Knowledge and understanding.**	
Learning Outcomes	**1.1** Understand the principles and tools of systems analysis and design. **1.2** Understand the application of computing in different context. **1.3** Understand the professional and ethical responsibilities of practicing the computer professional including understanding the need for quality.	
Goal 2	**Cognitive skills (thinking and analysis).**	
Learning Outcomes	**2.1** Solve a wide range of problems related to the analysis, design and construction of information systems. **2.2** Analysis and Design of systems of small sizes.	
Goal 3	**Communication skills (personal and academic).**	
Learning Outcomes	**3.1** Be able to present projects.	
Goal 4	**Practical and subject specific skills (Transferable Skills).**	
Learning Outcomes	**4.1** Plan and undertake a major individual project, prepare and deliver coherent and structured verbal and written technical reports.	
Textbook	1. "**System Analysis and Design**" Kendall & Kendall, 9th Edition; Pearson, 2014. 2. "**Modern Systems Analysis and Design**" Joseph Valacich, Joey George, 8th Edition; Pearson, 2016.	

" عراقة وجودة"
"Tradition and Quality"

Detailed Course Description - Course Plan Development and Updating Procedures/ Computer Information Science Department	QF01/0408-3.0E

Supplementary References	1. "Systems Analysis and Design" Shelly, Cashman & Rosenblatt, 9th Edition, Pearson, 2012.

Course Timeline				
Week	**Number of Hours**	**Course Topics**	**Pages (Textbook)**	**Notes**
01	1 1 1	**Chapter 1:** System Analysis Fundamentals ▪ Systems, Roles, and Development ▪ Methodologies ▪ Types of Systems	1-30	
02	1 1 1	**Chapter 1:** System Analysis Fundamentals ▪ Integrating Technologies for Systems ▪ Need for Systems Analysis and Design ▪ Roles of the System Analyst	32-34	
03	1 1 1	**Chapter 1:** System Analysis Fundamentals ▪ The System Development Life Cycle **Chapter 3:** Project Management ▪ Project Initiation ▪ Determining Feasibility	36 84-90	
04	1 1 1	**Chapter 3:** Project Management ▪ Ascertaining Hardware and Software Needs ▪ Activity Planning and Control	91-105	
05	1 1 1	System Analysis Project Lunching ▪ Build the Team ▪ Prepare the Initial Proposal ▪ Building Business Model		
06	1 1 1	**Chapter 4:** Information Gathering: Interactive Methods ▪ Interviewing ▪ Joint Application Design ▪ Using Questionnaires	131-142	
07	1 1 1	System Analysis Project ▪ First Presentation-Analysis Phase ▪ Introduce Project Information Gathering ▪ Techniques **First Exam 20%**		
08	1 1 1	**Chapter 5:** Information Gathering: Unobtrusive ▪ Methods ▪ Sampling ▪ Investigation ▪ Observing a Decision Maker's Behavior ▪ Observing the Physical Environment	159-170	
09	1	**Chapter 7:** Using Data Flow Diagrams		

جامعة الزيتونة الأردنية
Al-Zaytoonah University of Jordan
كلية العلوم وتكنولوجيا المعلومات
Faculty of Science and Information Technology

" عراقة وجودة"
"Tradition and Quality"

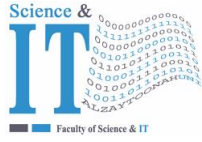| Detailed Course Description - Course Plan Development and Updating Procedures/ Computer Information Science Department				QF01/0408-3.0E	

	1 1	▪ The Data Flow Approach to Human Requirements Determination ▪ Developing Data Flow Diagrams	221-223	
10	1 1 1	DFD Case Study ▪ Discussion and Brain Storming ▪ Designing the Context Diagram ▪ Designing Lower Level Diagrams		
11	1 1 1	**Chapter 7:** Using Data Flow Diagrams ▪ Logical and Physical Data Flow Diagrams ▪ A Data Flow Diagram Example	228-235	
12	1 1 1	**Chapter 8:** Analyzing Systems Using Data Dictionaries ▪ The Data Dictionary ▪ The Data a Repository	256-257	
13	1 1 1	Project Design Phase Discussion ▪ Second Presentation-Design Phase **Second Exam 20%**		
14	1 1 1	**Chapter 9:** Process Specifications and Structured Decisions ▪ Overview of Process Specifications ▪ Structured English	287-289	
15	1 1 1	**Chapter 9:** Process Specifications and Structured Decisions ▪ Decision Tables ▪ Decision Trees	294-299	
16	1 1 1	Project Design Phase Discussion ▪ Final Presentation ▪ Project Document Submission **Final Exam 50%**		

Theoretical Course Evaluation Methods and Weight	Participation = 10% First exam 20% Second exam 20% Final exam 50%	**Practical Course Evaluation Methods**	Semester students' work = 50% (Reports, research, quizzes, etc.) Final exam = 50%

Approved by Head of Department		**Date of Approval**	

Extra information (to be updated every semester by corresponding faculty member)

Name of Teacher		**Office Number**	
Phone Number (extension)		**Email**	_____@zuj.edu.jo

جامعـة الزيتونـة الأردنيـة
Al-Zaytoonah University of Jordan
كلية العلوم وتكنولوجيا المعلومات
Faculty of Science and Information Technology

" عراقة وجودة"
"Tradition and Quality"

Detailed Course Description - Course Plan Development and Updating Procedures/ Computer Information Science Department	QF01/0408-3.0E

Office Hours	