



The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus

1	Course title	Information system analysis and design
2	Course number	0807414
3	Credit hours (theory, practical)	3
	Contact hours (theory, practical)	3
4	Prerequisites/corequisites	
5	Program title	Library and information science
6	Program code	70
7	Awarding institution	University of Jordan
8	Faculty	Faculty of educational sciences
9	Department	Library and information science
10	Level of course	Undergraduate programme
11	Year of study and semester (s)	2024-2023
12	Final Qualification	Undergraduate programme
13	Other department (s) involved in teaching the course	Taught in faculty of Information Technology
14	Language of Instruction	English
15	Date of production/revision	2024-2023

16. Course Coordinator:

Office numbers, office hours, phone numbers, and email addresses should be listed.

17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.

18. Course Description:

As stated in the approved study plan.

This course introduces the first stage in a system's development life cycle, concerned with system analysis. It provides detailed tools and methods applied to find out functional and non functional system requirements. It also introduces some graphical tools helping analysts define, understand and improve systems. The course also introduces the second stage in system development (design), by looking at databases and its general concepts.

19. Course aims and outcomes:

A- Aims:

The aim of this course is to teach students some analysis and design activities and tools in attempt to better understand existing systems and avoid system failure. Furthermore, to learn how to use some graphical tools to express functional requirements and flow of data in a system.

B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to ...

1. Be aware of the main concepts in system analysis and design
2. Get introduced to some activities in system analysis like defining problems using Soft System Methodology
3. Get introduced to various technical / graphical tools helping in defining functional requirements (like use case diagram)
4. Get introduced to various technical / graphical tools helping analysts view how data flows in a system
5. Getting introduced to some role-based models stating roles and their responsibilities in a system (like the Riva method)
6. Looking at system failure and why system analysis is important
7. Identifying some design methods and looking at databases

20. Topic Outline and Schedule:

Weeks	Material content
1 (1/ 2/ 15)	Introduction to the course
2	This week we shall look at the fundamentals of systems; system definition and its properties, using system maps. Then will introduce the concept of system development life cycle and its various models
3	This week will continue to introduce the models of software development, with concentration on the first phase related to systems analysis, which includes many activates, this week will look at one activity: problem definition (using rich pictures and root definitions)
4	This week will focus on another activity in system analysis, the one related to requirements. We'll discuss the main types of requirements and the concept of requirements engineering. Then we shall introduce "use case diagrams" as a graphical tool helping in finding out functional requirements
5	Introduction to quantitative and qualitative analysis, and identifying some requirements gathering methods such as interviews, questionnaires and more
6	Continue discussing the various requirements gathering methods
7 (15/3/15)	MID-TERM EXAM (first 5 presentations) Introducing Data Flow Diagrams (DFD) and data dictionaries as graphical tools to help in the analysis. In addition to the tools used to analyze structured decisions (decision tables, decision trees and structured English)
8	This week will introduce Process Architecture Diagram (PAD) and Role Activity Diagram (RAD) as tools helping analysts to illustrate organizational processes in attempt to improve them
9	The systems requirements document; how to produce the final requirements analysis document. Project management – discussing management activities and building a Work Breakdown Structure (WBS)
10	This is to learn how to create a network and come up with the critical path. Risk management is also discussed
11	System failure – why do some systems fail? Introduction to the second phase of system development (design)
12	Looking at how to design effective input, effective output and data entry procedures. Then looking at how to design data bases
13	This week we'll continue with design, by looking at how to design proper useful user interface, with reference to GUI as well
14 (3/5/15)	Object oriented design which is applied in OO development. Revision

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

Lectures are given to students through power point slides.

Two lectures are given through peer reviewed articles to clarify some methods

Lectures are open for discussion

Lectures about graphical tools allow student to practice some real life examples

The assignment is a case study, where students are asked to do some analytical thinking and come up with a use case diagram to identify the system's requirements

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

One mid-term exam

One case study assignment

One final exam

10 marks also go for participation and attendance

23. Course Policies:

A- Attendance policies:

Attendance is registered every lectures and entered into the system

B- Absences from exams and handing in assignments on time:

Make up exam is set for students with valid excuse

C- Health and safety procedures:

D- Honesty policy regarding cheating, plagiarism, misbehaviour:

Any cheating cases are to be reported (non so far!)

E- Grading policy:

Following ideal answer in some questions, allowing flexibility in the analytical questions since they allow different perspective and thinking, taking into consideration logical thinking.

F- Available university services that support achievement in the course:

Having a data show to demonstrate lectures

24. Required equipment:

Data show only

--

25. References:

A- Required book (s), assigned reading and audio-visuals:

Lectures are given to students via email (power point slides), no specific book required, however, a list of references are given to students for further reading / assistance:

Fowler, M. (2003). *UML Distilled Third Edition: A Brief Guide to the Standard Object Modelling Language*. UK: Addison Wesley.

Kendall, K. E., & Kendall, J. E. (2002). *Systems analysis and design*. USA: Pearson Education

Sommerville, I. (2001). *Software Engineering*. UK: Addison Wesley

B- Recommended books, materials, and media:

26. Additional information:

--

Name of Course Coordinator: -----Signature: ----- Date: -----

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----