

Faculty of Computers and Information Technology

Systems Analysis and Design

Information :

Course Code : IS321

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Department of Information Systems

Instructor Information :

| Title | Name | Office hours |
|--------------------|-------------------------------|--------------|
| Professor | AMIRA MOHAMMED IBRAHIM IDREES | 2 |
| Professor | AMIRA MOHAMMED IBRAHIM IDREES | 2 |
| Teaching Assistant | Maha Farghaly Ali Ahmed | 2 |
| Teaching Assistant | Maha Farghaly Ali Ahmed | 2 |

Area Of Study :

Analyze the requirements of a computing system and design as solution for these requirements.
 Create and develop work plan independently.
 Use knowledge that enhances skills in fundamental area of information systems.
 Explain the fundamentals of Systems Development Life Cycle (SDLC of information systems).
 Demonstrate the management issues relating to information systems.
 Use effectively communication skills.

Description :

The aim of this course is to cover the topics related to the upper phases of the information systems development life cycle, which are the following: Planning of IS, The detailed analysis of IS, and the conceptual design of IS. He theologies, Techniques, activities, Tasks, deliverables. And practical experiences related to the execution of these phases will be covered in the course.

Course outcomes :

a.Knowledge and Understanding: :

- 1 - Discuss specifications and strategic planning for a given project.
- 2 - State different methods for data analysis and design.
- 3 - Illustrate management process for software projects and productions.

b.Intellectual Skills: :

- 1 - Analyze information systems problems, setting goals and requirements.
- 2 - Identify main ideas, patterns, components, attributes and detect relationships between these components in software analysis with different designs.
- 3 - Select appropriate methodologies and techniques for a given problem solution and setting out their limitations and errors.

c.Professional and Practical Skills: :

- 1 - Describe different analysis and design methodologies.
- 2 - Analyze system process and data requirements.

3 - Apply different IS methodologies for analysis and design.

d.General and Transferable Skills: :

1 - Work in a team effectively and efficiently considering time and stress management

2 - Apply communication skills and techniques in presentations for range of audiences using various methods and tools

3 - Appreciate continuous professional development.

ABET Course outcomes :

1 - Demonstrate adequate understanding of the life cycle of systems development project

2 - Demonstrate adequate understanding of the analysis and development techniques required for medium-scale information systems development project

3 - Identify the information and processing needs of the typical organizations

4 - Demonstrate adequate understanding of the fundamental concepts, skills, approaches, techniques, and tools for system analysis and design

5 - Represent the systems analysis and design by means of basic diagrammatic modeling tools

6 - Design an information system based on given specifications including the user interface, menu structure, system modular structure, etc

Course Topic And Contents :

| Topic | No. of hours | Lecture | Tutorial / Practical |
|--|--------------|---------|----------------------|
| Introduction | 4 | 2 | 2 |
| System development life cycle in an organizational context | 4 | 2 | 2 |
| The sources of software | 4 | 2 | 2 |
| Managing the information system project | 4 | 2 | 2 |
| Identifying and selecting system development project | 4 | 2 | 2 |
| Information Systems planning | 4 | 2 | 2 |
| Initiating and planning systems development project | 4 | 2 | 2 |
| Determining system requirements: Traditional Methods | 4 | 2 | 2 |
| Mid-Term Exam | 2 | | |
| Determining system requirements: Contemporary Methods | 4 | 2 | 2 |
| Analyzing system process requirements | 4 | 2 | 2 |
| Analyzing system data requirements | 4 | 2 | 2 |
| Project presentation | 4 | 2 | 2 |
| Final Exam | 2 | | |

Teaching And Learning Methodologies :

Interactive Lectures including Discussions

Practical Lab Sessions

Self-Study (Project / Reading Materials / Online Material / Presentations)

Case Studies

Problem Solving

Course Assessment :

| Methods of assessment | Relative weight % | Week No | Assess What |
|-------------------------|-------------------|---------|-------------|
| Assignments | 5.00 | 4 | |
| Final Exam | 40.00 | 14 | |
| Midterm Exam | 20.00 | 9 | |
| Others (Participations) | 5.00 | | |
| Presentations | 5.00 | 10 | |
| Quizzes | 10.00 | 5 | |
| Team Work Projects | 15.00 | 11 | |

Course Notes :

An Electronic form of the Course Notes and all the slides of the Lectures is available on the Students Learning Management System (Moodle)

Web Sites :

www.ekb.eg