FUTURE UNIVERSITY IN EGYPT
جامعة المستقبل

Faculty of Computers and Information Technology

Software Engineering-2

Information :

Course Code :	CS352	**Level :**	Undergraduate	**Course Hours :**	3.00- Hours
Department :	Department of Information Systems				

Area Of Study :

Design a solution for the requirements of a given software system.
Use effectively communication skills.
Understand knowledge that enhances skills in software reuse and critical system development.
Use and adopt fundamental of software engineering.
Comprehend deeply the basic concepts to develop a computer based system process and components

Description :

This course provides a review of Software Development and Requirements Engineering Process. Software Architecture Design, Object Oriented Design, Software Testing, Software Reuse, Software Verification and Validation, Critical System Development

Course outcomes :

a.Knowledge and Understanding: :	
1 -	Identify quantitative techniques and methods of software system
2 -	Explain the principles and techniques of software development methods
3 -	Identify the fundamental topics of software engineering such as software reuse and critical system development
b.Intellectual Skills: :	
1 -	Analyze different architectural and object oriented designs
2 -	Select appropriate methodologies and techniques for design of a software system
3 -	Classify methods and techniques to implement software system
c.Professional and Practical Skills: :	
1 -	Apply effective information to design, implement and test a software system
2 -	Construct and evaluate using user interface design using human computer interaction concepts
3 -	Deploy documentation and development tools for software systems
d.General and Transferable Skills: :	
1 -	Work on a team for the development of a design and testing documents
2 -	Apply communications skills in presentation and report writing of a software project deliverables

ABET Course outcomes :

1 -	Perform an architectural design for the requirements of a given software system.
2 -	Carry out detailed design for given software system.

Copyright É 2025 [Future University in Egypt]. All rights reserved.

3 -	Communication effectively.
4 -	Understand different approaches for software reuse and critical system development.
5 -	Implement, test, and evaluate a software system.
6 -	Work effectively in a team.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Review of Software Requirements Engineering	4	2	2
Software Architectural Design I	4	2	2
Software Architectural Design II	4	2	2
Object Oriented Design I	4	2	2
Object Oriented Design II	4	2	2
Software Testing I	4	2	2
Software Testing II	4	2	2
Software Verification and Validation I	4	2	2
Mid-Term Exam	2		
The software Reuse I	4	2	2
The software Reuse II	4	2	2
Critical System Development	4	2	2
Project presentation	4	2	2
Final Exam	2		

Teaching And Learning Methodologies :

Interactive Lectures including discussion
Tutorials
Practical Lab Sessions
Self-Study (Project / Reading Materials / Online Material / Presentations)
Seminars
Case Studies

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignments	5.00	4	
Final Exam	40.00	14	
Midterm Exam (s)	20.00	9	
Others (Participations)	5.00		
Presentations	5.00	12	
Quizzes	10.00	5	
Team Work Projects	15.00	12	

Copyright É 2025 [Future University in Egypt]. All rights reserved.

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

Copyright É 2025 [Future University in Egypt]. All rights reserved.