

Faculty of Computers and Information Technology

Software Engineering-2

Information :

Course Code : CS352

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Digital Media Technology

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: :

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| 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: :

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|-----|---|
| 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: :

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| 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: :

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| 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 :

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

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	

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