

Faculty of Computers and Information Technology

Selected Topics in Computer Science-1

Information :

Course Code : CS467

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Department of Computer Science

Area Of Study :

Use and adopt fundamental and advanced mathematics, basic sciences and computer science theories in all development phases of computer-based modern systems.
Comprehend deeply the advanced concepts of computer science to be ready for further and continuous learning.
Show a complete understanding of all modern computer science disciplines.
Develop and evaluate a computer based system process and components.
Compare, evaluate and select a design of computer-based modern systems from a set of alternatives

Description :

Topics which are not included in the curriculum and seems to be needed should be suggested as an elective course by CS department

Course outcomes :

a.Knowledge and Understanding: :

- | | |
|-----|--|
| 1 - | Explain the advanced principles and techniques of different areas in computer science |
| 2 - | Discuss the advanced topics of the specialized courses in computer science |
| 3 - | Explain the selected advanced topics in sufficient depth in different aspects of modern computer-based systems |

b.Intellectual Skills: :

- | | |
|-----|--|
| 1 - | Compare and differentiate between algorithms, methods and techniques used in advanced computer science problems solutions |
| 2 - | Classify data, results, methods, techniques and algorithms used to build modern computer-based systems |
| 3 - | Identify main ideas, patterns, components, attributes and detect relationships between these components of modern computer-based systems |

c.Professional and Practical Skills: :

- | | |
|-----|---|
| 1 - | Evaluate the quality of modern computing systems using different factors and different constrains |
| 2 - | Apply different soft skills by oral, written, presentations and visual means in a professional way during development modern computer-based systems |
| 3 - | Create technical reports according to professional standards to finalize modern computer-based systems |

d.General and Transferable Skills: :

- | | |
|-----|---|
| 1 - | Work on a team for the development of a requirements document |
| 2 - | Apply communications skills in presentation and report writing of requirements engineering deliverables |

ABET Course outcomes :

1 -	Use and adopt fundamental and advanced mathematics, basic sciences and computer science theories in all development phases of computer-based modern systems.
2 -	Comprehend deeply the advanced concepts of computer science to be ready for further and continuous learning.
3 -	Show a complete understanding of all modern computer science disciplines.
4 -	Develop and evaluate a computer based system process and components.
5 -	Compare, evaluate and select a design of computer-based modern systems from a set of alternatives.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Determined by the department	32	16	16
Mid-Term Exam	2		
Determined by the department	16	8	8
Final Exam	2		

Teaching And Learning Methodologies :

Interactive Lectures including Discussions

Practical Lab Sessions

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

Problem Solving

Course Assessment :

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

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)

Recommended books :

Depends on selected topic

Web Sites :

Depends on selected topic