

**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

**Instructor Information :**

Title	Name	Office hours
Lecturer	Esam eldeen fawzy Elfagharany	
Teaching Assistant	Salma Mohamed Shalaby Abdelaziz	

**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