

**Faculty of Computers and Information Technology**

**Project - 2**

**Information :**

**Course Code :** PR499

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Department of Computer Science

**Instructor Information :**

Title	Name	Office hours
Professor	Tarek Ahmed Mahmoud Mohamed	
Lecturer	Mohamed Ahmed Hussein Ali	

**Area Of Study :**

Use modern techniques, up to date methods and tools for computing and information practice.  
 Compare, evaluate and select methodologies from range of techniques, theories and methods to develop computing and information systems.  
 Deal with the individual, social, environmental, organizational and economic implications of the application of computing and information.  
 Create and develop work plan independently.  
 Use effectively communication skills.  
 Own the needed knowledge and skills in the computing and information market.  
 Understand knowledge that enhances skills in fundamental area of computer science  
 Use and adopt fundamental and advanced software and computer system in all development phases.  
 Comprehend deeply the basic concepts of computer science to develop and evaluate a computer based system process and components.

**Description :**

This course will continue for two semesters. In the first semester, a group of students will select one of the projects proposed by the department, and analyze the underlying problem. In the second semester, the design and implementation of the project will be conducted.

**Course outcomes :**

**a. Knowledge and Understanding: :**

1 -	Describe methodologies, practices and tools used in computer software systems development phases.
2 -	Identify the criteria for current use and future development of computer-based systems.
3 -	Outline testing techniques and methods of computer based systems.
4 -	Discuss the basic concept of high level programming languages.
5 -	Explain the principles and techniques of different areas in computer science.
6 -	Identify the fundamental topics of computer science.

**b. Intellectual Skills: :**

1 -	Implement the solutions of computing and information in academic disciplines.
2 -	Determine measurement criteria for the deployment of a computer-system and evolution.

3 -	Prepare presentations of computing and information systems.
4 -	Criticize a system using costs and different quality attributes and environmental impact.
5 -	Relate professional, moral, legal and ethical issues to computing and information.
6 -	Analyze different CS Problems with in commercial and industrial constrains.
7 -	Select appropriate methodologies and techniques for a given problem associated with their results.
8 -	Classify data, results, methods, techniques and algorithms.

**c. Professional and Practical Skills :**

1 -	Run computing equipment in different physical environment.
2 -	Use different computing technologies in projects development and deployment.
3 -	Design, implement, test, maintain and manage software systems.
4 -	Manipulate big data and draw conclusions.
5 -	Use human computer interaction principles in the construction and evaluation of user interfaces for wide ranges of applications.
6 -	Deploy effective supporting tools for the development and documentation of software systems.
7 -	Create technical reports according to professional standards.

**d. General and Transferable Skills :**

1 -	Exploit a range of learning resources.
2 -	Work in a team to develop the requirement documentation.
3 -	Use Information Retrieval techniques.
4 -	Apply communication skills in presentations and report writing using various methods and tools.
5 -	Apply quantitative methods and skills in understanding and presenting cases.
6 -	Utilize effectively general computing facilities.
7 -	Appreciate continuous professional development and lifelong learning.

**ABET Course outcomes :**

1 -	Produce a complete system design for the adopted problem solution.
2 -	Apply core computing theory and knowledge such as programming, data structures and databases, algorithms, and software development methodology..
3 -	Implement and carry out the proposed design.
4 -	Carry out testing of the produced system.
5 -	Communicate effectively and deliver oral presentations.
6 -	Demonstrate awareness of professional responsibilities and ethics.
7 -	Able to work independently and as part of a team utilizing effective work practices.

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Weekly participation	2		
Preparing project design	2		
Preparing project implementation	2		
Preparing a description document	2		
Preparing interim reports	2		

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Preparing Project presentation	2		
Final Exam	2		

**Teaching And Learning Methodologies :**

Interactive discussion
Self-Study (Project / Reading Materials / Online Material / Presentations)
Seminars
Case Studies
Problem Solving

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
final evaluation	40.00		
Team Work tasks	60.00		