

## Faculty of Computers and Information Technology

### Project-1

#### Information :

**Course Code :** PR498

**Level :** Undergraduate

**Course Hours :** 3.00- Hours

**Department :** Department of Information Systems

#### Area Of Study :

Upon completion of this course, students will be able to:

- Apply the basic concepts and theories of computing and information.
- Combine and evaluate different tools and facilities.
- Use basic mathematics and science in computing and information.
- Analyze the requirements of a computing system and design as solution for these requirements.
- Create and develop work plan independently.
- Use effectively communication skills.
- Own the needed knowledge and skills in the computing and information market. Carry out a self-learning and research in computing and information field.
- Satisfy the qualifications required by potential employers.
- Understand knowledge that enhances skills in fundamental area of computer science.
- Use and adopt fundamental and advanced mathematics, basic sciences and computer science theories in all development phases of computer-based systems.
- Comprehend deeply the basic concepts of computer science to be ready for further and continuous learning.

#### 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 -	. Define the fundamental concepts and theories related to computing and information systems
2 -	Describe modeling and simulation of computer-based systems
3 -	Identify the up to date technologies used to support computer processing and communication
4 -	Discuss trends in computing and information research
5 -	Explain functional requirements and constrains in computer based system development
6 -	Identify the fundamental mathematics and statistics required to solve problems in computer science
7 -	Describe different qualitative and quantitative methods for data analysis
8 -	Identify the fundamental topics of the specialized courses in computer science

##### **b.Intellectual Skills: :**

1 -	Analyze and design a solution for computing problems considering limitations and constrains
2 -	Prepare proposals of computing and information systems
3 -	Criticize research paper in specific area

4 -	Analyze different computer science problems and setting goals and requirements
5 -	Select appropriate methodologies and techniques for a given problem solution and setting out their limitations, restrictions and errors
6 -	Classify data, results, methods, techniques and algorithms used in Computer Science Problems solutions

**c. Professional and Practical Skills :**

1 -	Acquire a set of fundamental research skills from different resources
2 -	Analyze and manage software systems
3 -	Use human computer interaction principles in the operation of computing systems
4 -	Deploy effective supporting tools for the development and documentation of software systems
5 -	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 -	Identify a problem related to the field of study and produce a technical proposal for a solution.
2 -	Analyze and design a solution for a computing problem considering limitations and constraints and create technical reports according to professional standards.
3 -	Demonstrate the ability to work independently and as part of a team utilizing effective work practices.
4 -	Plan effectively for the various project lifecycle activities.
5 -	Conduct an effective literature survey and be able to contrast and critique related work.
6 -	Generate and articulate functional requirements and a preliminary design of the system/project.
7 -	Select appropriate methodologies, techniques and tools for a given problem solution and setting out their limitations, restrictions, and errors.

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Weekly participation	2		
Preparing project search	2		
Preparing project analysis	2		
Preparing project requirements document	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		