

Faculty of Engineering & Technology

Introduction to Computer

Information :

Course Code : CSC 101

Level : Undergraduate

Course Hours : 2.00- Hours

Department : University Requirments

Area Of Study :

The main aims of this course are:

1. To widen the student's knowledge about the basic elements of computer hardware and software and their roles in a computer system.
2. To deep the student's comprehension of the basic concepts of software development.
3. To enhance the student's ability to use Internet for searching and browsing information.

Understand how to use Internet and WWW for searching and browsing information.

Understand the basics of software development.

Ability to develop and produce diversity of computer applications using Word processing, Spreadsheet, Database and Powerpoint Software tools.

Demonstrate knowledge and understanding of standard methods and approaches for problem solving.

Demonstrate knowledge and understanding of the algorithmic approach for problem solving.

Design and represent an algorithmic solution for a given algorithmic problem.

Implement the algorithmic solution using C++ as a programming language.

Demonstrate knowledge and understanding of using C++ in implementing various problem solutions in different application areas.

Description :

Introduction to computer hardware, computer software and computer networks. Data internal representation in computer memory. Numbering systems. Problem solving techniques using Pseudocode (Structured English).

Course outcomes :

a. Knowledge and Understanding: :

1 - a1. Describe the basics of software development.

2 - a2. Define the basics of application software.

3 - a3. Identify basic computer terminology.

b. Intellectual Skills: :

1 - b1. Design a solution for computing problems considering limitations and constrains.

2 - b2. Implement the solutions of computing and information.

3 - b3. Determine measurement criteria for computer systems.

c. Professional and Practical Skills: :

1 - c1. Run computing equipment in different physical environment.

2 - c2. Install and maintain different supporting tools for construction and documentation software systems.

3 - c3. Maintain software systems.

d.General and Transferable Skills: :

1 -	d1. Search for data.
2 -	d2. Work in a team.
3 -	d3. Communicate effectively.

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction To Computer and Information Technology & Computer Hardware Components	3	2	1
Computer Software	6	4	2
Problem Solving Methodologies and Algorithmic Approach	6	4	2
Program development in C++	6	4	2
Basic Elements & Data Types of C++	6	4	2
Program development in C++ - Arithmetic C++ & Selection Control Structures	6	4	2
Program development in C++ - Repetitive C++ Structures (Loops)	6	4	2
Project presentation	6	4	2

Teaching And Learning Methodologies :

Interactive Lectures including discussion
Practical Lab Sessions
Self-Study (Project / Reading Materials / Online Material / Presentations)

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final exam	40.00		
Participation (Team work project)	10.00		
o First Mid Term Exam	20.00		
o Practical Exam	10.00		
o Second Mid Term Exam	20.00		

Books :

Book	Author	Publisher
Computer fundamentals for technical students (Ebook)	Heisserer, Nick	LibreTexts

Course Notes :

Course notes Lecture notes to be handed out
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Recommended books :

Brian K. Williams, Stacey Sawyer, "Using Information Technology: a Practical Introduction to Computer & Communication," 11th International Edition, McGraw Hill, 2013.

Web Sites :

www.ekb.eg