

Course Unit Title	Introduction to Programming
Course Unit Code	COM141
Type of Course Unit	Compulsory
Level of Course Unit	1 st year BSc program
National Credits	4
Number of ECTS Credits Allocated	6
Theoretical (hour/week)	4
Practice (hour/week)	-
Laboratory (hour/week)	2
Year of Study	1
Semester when the course unit is delivered	1
Course Coordinator	Ramiz Musallam Salama
Name of Lecturer (s)	Ramiz Musallam Salama
Name of Assistant (s)	-
Mode of Delivery	Face to Face, Laboratory.
Language of Instruction	English
Prerequisites	-
Recommended Optional Programme Components	-
Course description:	
<p>Algorithm development. Elements of C. Structure of a C program, data types, constants, input and output of integer numbers, real numbers. Variables, expressions and assignments. Input and output functions. Control Structures. Selection- If statement, multiple selection- switch statement. Iteration- while, do-while, for operators. User-defined functions, arrays and subscripted variables, single and multi-dimensional arrays. Array and functions. Pointers, pointers and strings. Structures, creating structures. Structure as function argument. Subprograms. Files. File operations. Application programs will be developed in a laboratory environment using the C language.</p>	
Objectives of the Course:	
<ul style="list-style-type: none"> • To familiarize the students with computers and computing fundamentals. • To be able to analyze and design a solution to a given problem. 	

- To enable the students to write structured programs using C programming Language.

Learning Outcomes

At the end of the course the student should be able to		Assessment
1	Develop algorithms for problem solution	1,2,3
2	Use selection statements in programming	1,2,3,4
3	Apply iteration statements	1,2,3,4
4	Explain modular programming and function design	1,2,3,4
5	Construct readable programs with sufficient documentation	1,2,3,4

Assessment Methods: 1. Written Exam, 2. Assignment, 3. Quiz 4. Lab. Work

Course's Contribution to Program

		CL
1	Apply knowledge of mathematics, natural science with relevant to life science and multidisciplinary context of engineering science.	3
2	Analyze, design and conduct experiments, as well as to analyze and interpret data.	4
3	Design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.	3
4	Function on multidisciplinary teams.	3
5	Control in design work, by using simulation, modelling and tests and integration in a problem solving oriented way.	4
6	Display an understanding of professional and ethical responsibility.	2
7	Communicate effectively aware of the non-technical effects of engineering.	1
8	Search technical literature and other information sources.	1
9	Recognize of the need for, and an ability to engage in life-long learning.	1
10	Exhibit a knowledge of contemporary issues.	2
11	Use the techniques, skills and modern engineering tools necessary for engineering practice to develop marketable products for the global market.	4

CL: Contribution Level (1: Very Low, 2: Low, 3: Moderate, 4: High, 5: Very High)

Course Contents

Week	Chapter	Topics	Exam
1		Introduction & Algorithm Development (A pseudocode approach)	
2		Algorithm Development (A pseudocode approach)	
3		Algorithm Development (A pseudocode approach)	
4	2	Overview of C programming language	
5	2,3	Data types, expressions and I/O statements	
6	4,5	Conditions, Boolean expressions and Control statements	
7			Midterm
8	6	Looping structures.	
9	6	Looping structures.	
10	8	Arrays(one dimensional & multidimensional)	
11	8	Arrays(one dimensional & multidimensional)	
12	9	Functions	
13	9	Functions	
14	16	Structures	
15			Final

Recommended Sources

Textbook:

C Programming: A Modern Approach, K. N. King, W.W.Norton&Company, 2nd Edition,2008.

Supplementary Course Material

C: How to Program, H.M.Deitel, P.J.Deitel, Pearson, 5th Edition,2007.

Assessment

Attendance	5%	Less than 25% class attendance results in NA grade
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Assignment & Quiz	10%	
Lab Work	20%	
Midterm Exam	25%	Written Exam
Final Exam	40%	Written Exam
Total	100%	

Assessment Criteria

Final grades are determined according to the Near East University Academic Regulations for Undergraduate Studies

Course Policies

1. Attendance to the course is mandatory.
2. Late assignments will not be accepted unless an agreement is reached with the lecturer.
3. Students may use calculators during the exam.
4. Cheating and plagiarism will not be tolerated. Cheating will be penalized according to the Near East University General Student Discipline Regulations

ECTS allocated based on Student Workload

Activities	Number	Duration (hour)	Total Workload(hour)
Course duration in class (including Exam weeks)	16	4	64
Labs and Tutorials	10	2	20
Assignment	5	2	10
Project/Presentation/Report	-	-	-
E-learning activities	-	-	-
Quizzes	4	2	8
Midterm Examination	1	15	15
Final Examination	1	15	15
Self Study	14	3	42
Total Workload			174
Total Workload/30(h)			5.80

ECTS Credit of the Course	6
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