Philadelphia University

Faculty of Engineering - Department of Computer Engineering
First Semester 2022/2023

Course Details:

Title:	Programming Language (0610263)
Prerequisite:	Remedial Computer **(**750099)
Credit Hours:	3 credit hours (16 weeks per semester, approximately 44 contact hours)
Textbook:	"C++ Programming From Problem Analysis To Program Design", by D.S. Malik. Fifth Edition 2011 or later
References:	"C++ How to program", By: H.M.Deitel and P.J. Deitel 9th ed. 2014
Course Description:	This course introduces students to the basic concepts in programming: variables, data types, conditional statements, looping statements, functions and arrays. C++ language is used to demonstrate such concepts.
Website:	https://www.philadelphia.edu.jo/academics/anazer/
Instructor:	Eng. Anis Nazer **Email:** anis.nazer@gmail.com **Office:** Engineering building, room 6712, ext: 2492

Course Outline:

Week	Topic
1	Course Introduction Programming Environment
2	Basic elements of C++ Input / Output
3, 4	Math functions Variables, Data types
5	Control Statements: selection if, if/else
6	Multiple selection
7, 8, 9	Control Statements: while, for, do/while
10, 11	Arrays and 2D arrays
12, 13, 14	Functions: - Definition - Local / Global variables - Call by Reference, Call by value - Recursive Functions
15	Structures
16	Review and final Exams

Course Learning Outcomes with reference to ABET Outcomes:

Upon successful completion of this course, the student should:

1.	Be able to write computer programs to solve specific engineering problems	[1, 6]
2..	Be able to develop computer algorithms to solve an engineering problem	[1, 6]
3.	Have the ability to read and understand existing computer programs	[1]
4.	Understand the basics of computer programming: variables, conditions, loops, arrays	[1]
5.	Understand the concept of computer functions and have the ability to use them to simplify problem solving	[1, 7]
6.	Understand and be able to use arrays in computer programs	[1]

Assessment Guidelines:

Evaluation of the student performance during the semester (total final mark) will be conducted according to the following activities:

Midterm Exam The students will be subjected to a midterm exams, during the semester. The exam will cover materials given in lectures in the previous 6 weeks.

Quizzes: Quizzes of (10-15) minutes will be conducted during the semester.

Course project: Homework problems will be given to students. Homework should be solved individually and submitted before the due date.

Cheating by copying homework or project from others is strictly forbidden and punishable by awarding the work with zero mark.

Course Participation: Discussions will be carried out during any lecture. Individual students will be assessed accordingly.

Final Exam: The students will undergo a scheduled final exam at the end of the semester covering the whole materials taught in the course.

Grading Policy:

Midterm Exam	30%
Course work activities: - Quizzes - Assignments - Discussions	30%
Final Exam	40%
Total:	100%

Attendance Regulation:

The semester has in total 45 credit hours. Total absence hours from classes and tutorials must not exceed 15% of the total credit hours. Exceeding this limit without a medical or emergency excuse approved by the deanship will prohibit the student from sitting the final exam and a zero mark will be recorded for the course. If the excuse is approved by the deanship the student will be considered withdrawn from the course.

Sep. 2022