



**Philadelphia University**  
**Computer Engineering Department**

**Course Title:** C++ Programming Language (630203) - Section 2

**Instructor:** Dr. Qadri Hamarsheh

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**Semester:** 2011-2012/1

**Class Time:** 12:10-13:10 (6717)

**Prerequisite:** None

**Office Hours:** 11:10-12:10

**Office Number:** 712

**Text Book:** C++ How to program, By: H.M.Deitel and P.J. Deitel, 5<sup>th</sup> ed. Prentice Hall.

**Course Goals:** This course introduces the basic principals of structured programming.

Students will learn and practice the application of these programming principles to the solution of Engineering problems using the C++ high-level programming language.

**Objectives:**

At Completing this module the student should be able to :

- Understand the programming fundamentals.
- Develop algorithms.
- Understand and write searching and sorting algorithms.
- Use Functions, strings and pointers.

**Course Contents**

	<u>Week</u>
❖ Introduction to computers and programming	2 <sup>nd</sup> October
❖ Introduction to C++, Input / Output commands.	9 <sup>th</sup> October
❖ Memory concepts, Arithmetic & relational operators, Control statements I : If & If...else & switch statements	23 <sup>rd</sup> October
❖ Control statements III: while & do while loops, for loop	6 <sup>th</sup> November
❖ <b>Quiz 1</b>	
❖ <b>First Exam Period</b>	6 <sup>th</sup> – 14 <sup>th</sup> Nov
❖ Functions: definition + examples, function overloading, recursion	20 <sup>th</sup> November
❖ Arrays: definition + examples, Searching, sorting and multidimensional arrays	27 <sup>th</sup> November
❖ Pointers: definition, pointer operators, const with pointers + function pointers	18 <sup>th</sup> December
❖ <b>Quiz 2</b>	
❖ <b>Second Exam Period</b>	22 <sup>nd</sup> -30 <sup>th</sup> Dec.
❖ <b>Deadline for DROPPING courses</b>	5 <sup>th</sup> Jan.
❖ <b>Quiz 3</b>	
❖ String function, File processing	8 <sup>th</sup> January
❖ <b>Final Exams period</b>	15 <sup>th</sup> -24 <sup>th</sup> Jan

**Mode of Assessment**

1- First Exam	20%
2- Second Exam	20%
3- Quizzes	15%
4- Performance	5%
5- Final Exam	40%

**References**

- 1- Richard Halterman, "Fundamentals of Programming: An Introduction to Computer Programming Using C++" 1995
- 2- Jofel Adams, Sanford Leestma, and Larry Nyhoff, "Turbo C++: An introduction to computing" Prentice-Hall, 1996.
- 3- Richard Halterman, "Fundamentals of Programming: An Introduction to Computer Programming Using C++" 1995
- 4- The C++ resource network: <http://www.cplusplus.com>
- 5- Textbook homepage: <http://www.deitel.com/books/cpphttp5>
- 6- Free C and C++ resources: <http://www.freeprogrammingresources.com/freetutr.html>