



# Computer Applications SUR 112



Benha University

Surveying Engineering Department

Faculty of Engineering  
(at Shoubra)

**Course Title:** Computer Applications  
**Course Code:** SUR 112  
**Instructor:** Dr. Shady Yehia Elmashad  
**Main Textbook:** "C++ How to Program" by Deitel and Deitel<sup>1</sup>  
[C++ How to Program, 3/e](#)  
[C++ How to Program, 3/e \(Slides\)](#)  
[C++ How to Program, 3/e \(Examples\)](#)  
**Other References:** <http://www.cplusplus.com/doc/tutorial/>  
<http://en.cppreference.com/w/>

**Course Contents:**

1. Introduction to Computers
  - Hardware/Software
  - Operating Systems
2. Introduction to Computer Programming
  - Machine Language and Assembly Language
  - High Level Languages
3. Problem Solving Concepts
4. Control Structures (Selection)
5. Control Structures (Iteration)
6. Functions
7. Arrays
8. Strings
9. Files

**Attendance Policy:**

1. Attendance is expected.
2. Whether you attend or not, you are responsible for keeping track of whatever happens during the lectures and the tutorials.
3. Side talking, cellphones, laptops, food/drinks, and walking<sup>2</sup> are not allowed.



**Grading System:**

<b>Attendance<sup>3</sup>:</b>	05%
<b>Assignments:</b>	05%
<b>Quizzes:</b>	05%
<b>Midterm Exam:</b>	15%
<b>Oral Exam<sup>4</sup>:</b>	10%
<b>Final Exam:</b>	60%

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1 I am using the *third edition* but you can use any.  
2 If you are late for the lecture, you are allowed to walk into the lecture hall but quietly.  
3 Attendance will be taken anyway.  
4 There will be a semester project that will be discussed during the oral exam