



Al-AI Bayt University  
 Prince Hussein bin Abdullah Faculty of Information Technology  
 Computer Science

### Course Syllabus

<b>Course Title</b>	Computer 2 for IT Students	<b>Course Code</b>	901133
<b>Coordinator</b>	Rami Jaradat	<b>Prerequisite(s)</b>	none
<b>E-mail</b>	rjaradat@aabu.edu.jo	<b>Credit Hours</b>	3
<b>Course Is</b>	<input checked="" type="checkbox"/> <b>Required</b> <span style="margin-left: 150px;"><input type="checkbox"/> <b>Elective</b></span>		

#### Course Description:

This course introduces IT students to C++ as their first programming language. Students learn the basic concepts of programming and learn how to solve problems using the C++ programming language. Topics covered include flowcharts, programming concepts, control structures, functions, arrays, pointers and strings.

#### Course Learning Outcomes (CLO):

- understand programming fundamentals
- Develop an Algorithm to solve a computing problem
- Read and understand Code written in C++
- Write programs in C++ to solve computing problems

#### Tentative Topics Covered

Week No	Topic
1	Introduction to Basic concepts: computer, computer languages, program, programming, problem solving. Flowcharts: simple and conditional flowcharts, simple and multiple iteration flowcharts
2	Introduction to C++ programming: Data Definition, Data types, Arithmetic and Logical expressions
3	Input / Output, Assignment, sequence structure
4	Control Structures: Selection (if, if – else, switch)
5	Control Structures: Repetition (for), break, continue

6	Control Structures: Repetition (while, do – while), Nested Loops
7	Math library functions (abs , floor , ceil , pow , sqrt), Random number generation
8	User defined functions, Scope rules, Recursive functions
9	Parameters definition and passing (pass by value, pass by reference)
10	One dimensional array (declare an array ,read array ,print array, minimum, maximum)
11	Arrays and functions: Passing the whole array
12	Two dimensional arrays
13	Pointer concepts: pointer definition, initialization and Applications
14	Pointer and functions , Array of pointers
15	Strings: declare string, getline() , string manipulation functions: strcpy, strcat, strlen, strcmp
16	Revision

### Textbook(s)

<b>Title</b>	C++ How to Program		
<b>Author(s)</b>	Harvey M. Deitel and Paul J. Deitel	<b>Publisher</b>	Prentice Hall
<b>Edition</b>	Fourth	<b>Year</b>	2002

### References

Book Titles (Author(s), Title, Edition, Publisher, Year)	Website URL ( if available )
Bjarne Stroustru, The C++ Programming Language, 4th edition, Addison-Wesley, 2013	

### Evaluation

Assessment Tool	Marks
- First Exam	25
- Second Exam	25
- Assignments (Reports, Quiz, Seminar, Tutorial, etc.) - Discipline, presence and participation	0
- Lab	0
- Final Examination	50