



الكلية المصرية الكورية لتكنولوجيا الصناعات والطاقة



## C++ Lab Outline

### Course: Programming Essentials in C ICT Program

Lab	Contents
Week 1: Introduction to C++	<ul style="list-style-type: none"><li>○ Install Code Bloks IDE for C++ programming language</li><li>○ Create first C++ program</li><li>○ Explanation of the program layout</li><li>○ Steps for execution the code</li><li>○ Steps for debugging the code</li></ul>
Week 2: C++ basics: Identifier,keyword, constants and data types	<ul style="list-style-type: none"><li>○ Declaring variables with different data types</li><li>○ Assignment variables with different ways</li><li>○ Explanation constants with examples</li></ul>
Week 3: Input and output - Increment/Decrement	<ul style="list-style-type: none"><li>○ Explanation cin and cout with examples</li><li>○ Using escape sequences</li><li>○ Explanation increment and decrement</li></ul>

Week 3: C++ basics: Identifier,keyword, constants and data types	<ul style="list-style-type: none"> <li>○Declaring variables with different data types</li> <li>○Assignment variables with different ways</li> <li>○ Explanation constants with examples</li> </ul>
Week 4: Arithmetic & Boolean Expressions	<ul style="list-style-type: none"> <li>○ Explanation Arithmetic Expressions with examples</li> <li>○ Explanation Boolean Expressions with examples</li> </ul>
Week 5: Conditional Statements	<ul style="list-style-type: none"> <li>○ Explanation if and if else with examples</li> </ul>
Week 6: Loop	<ul style="list-style-type: none"> <li>○Explanation for, while, and do while with examples</li> </ul>
Week 7: Type Casting- Global & local variables	<ul style="list-style-type: none"> <li>○Explanation type casting with examples</li> <li>○Explanation different between gloab and local varibales with examples</li> </ul>
Week 8: Predefined Functions & Defined Functions	<ul style="list-style-type: none"> <li>○Explanation including and calling Predefined Functions with examples</li> <li>○Explanation decalaring, defining and calling defined Functions with examples</li> </ul>
Week 9: Advanced Fuction	<ul style="list-style-type: none"> <li>○Explanation Overloading Function</li> <li>○Explanation Call-by-Reference Parameters</li> </ul>
Week 10: I/O file streams	<ul style="list-style-type: none"> <li>○Explanation read and write to files with examples</li> <li>○ Catching errors</li> </ul>
Week 11: Array	<ul style="list-style-type: none"> <li>○Explanation one and Two Dimensional with examples</li> </ul>
Week 12: Pointer	<ul style="list-style-type: none"> <li>○Explanation pointer with examples</li> </ul>



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