

Course Outline Template

Department of Electrical and Electronic Engineering

Course Code: CSE1151

Section: B

Course Title: Computer Programming

Course Teacher: Professor M R Khandker, PhD

CO No.	CO Statement
CO1	Know basic program structure of a typical 'C' program, I/O statements, variables, constants, and operators
CO2	Use control flow statements and blocks: if-else, switch and Break statement, Loop statements: for, while, do-while, break and continue.
CO3	Solve problems using functions, arrays, structure, unions, string operations, and pointers.
CO4	Use Object Oriented Programming to solve real life problems.

CO No.	CO Statement	Corresponding PO	Domain and Level of Learning Taxonomy	Delivery Methods	Assessment Tools
CO1	Know basic program structure of a typical 'C' program, I/O statements, variables, constants, and operators	PO1: Engineering Knowledge	Cognitive: Level 1 (Remember)	<input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Discussion <input checked="" type="checkbox"/> Interaction <input type="checkbox"/> Audio/Video	<input checked="" type="checkbox"/> Class Test <input checked="" type="checkbox"/> Quiz <input checked="" type="checkbox"/> Assignment <input checked="" type="checkbox"/> Final Exam <input type="checkbox"/> Project (Presentation & Report)
CO2	Use control flow statements and blocks: if-else, switch and Break statement, Loop statements: for, while, do-while, break and continue.	PO1: Engineering Knowledge	Cognitive: Level 1 (Understand)	<input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Discussion <input checked="" type="checkbox"/> Interaction <input type="checkbox"/> Audio/Video	<input checked="" type="checkbox"/> Class Test <input checked="" type="checkbox"/> Quiz <input checked="" type="checkbox"/> Assignment <input checked="" type="checkbox"/> Final Exam <input type="checkbox"/> Project (Presentation & Report)
CO3	Solve problems using functions, arrays, structure, unions, string operations, and pointers.	PO3: Design/Development, PO5: Modern Tools	Cognitive: Level 3 (Apply)	<input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Discussion <input checked="" type="checkbox"/> Interaction <input type="checkbox"/> Audio/Video	<input checked="" type="checkbox"/> Class Test <input checked="" type="checkbox"/> Quiz <input checked="" type="checkbox"/> Assignment <input checked="" type="checkbox"/> Final Exam <input type="checkbox"/> Project (Presentation & Report)
CO4	Use Object Oriented Programming to solve real life problems.	PO5: Modern Tools PO12:Lifelong Learning	Cognitive: Level 6 (Create)	<input checked="" type="checkbox"/> Lecture <input checked="" type="checkbox"/> Tutorial <input type="checkbox"/> Discussion <input checked="" type="checkbox"/> Interaction <input type="checkbox"/> Audio/Video	<input checked="" type="checkbox"/> Class Test <input checked="" type="checkbox"/> Quiz <input checked="" type="checkbox"/> Assignment <input checked="" type="checkbox"/> Final Exam <input type="checkbox"/> Project (Presentation & Report)

Week	Topic to be covered	Assessment	CO Mapping
1	Function declaration, definition and calling with examples. Usage of library function with examples.		CO3
2	Argument passing to function. Function recursion. Scope of function variables. Auto and static variables. Examples.		CO3
3	Declaration and initialization of string variables. String operations. Library string functions. Examples		CO3
4	Class Test 1/ Quiz 1 and Evaluation	Class Test	CO3
5	Declaration and initialization of structure variables, arrays of structure and pointer to structure. Passing structures, arrays and arrays of structure to a function.		CO3
6	Problem solving with structure and arrays.		CO3
7.	Union variable. I/O File operations.		CO3
8.	Assignment and its Evaluation. Interactive Explanation of the evaluation.	Assignment	CO3
9	Concept of class and object. Properties of OOP. Simple OOP Example. Usage of constructor and destructor with example programs		CO4
10.	Explaining Inheritance concept, types of Inheritance: public, private and protected, friend function. Explaining polymorphism, function overloading and encapsulation with examples		CO4
11.	Real life problem solving using C++ OOP.		
12.	Class Test 2/ Quiz 2	Class Test	CO4
13.	Assignment and its Evaluation. Interactive Explanation of the evaluation.	Assignment	CO4

Reference books:

1. Byron S. Gottfried : Theory and Problems of Programming with C
2. Herbert Schild : Teach yourself C
3. Robert Lafore : The Waite Group's C Programming using Turbo C++
4. H.M Deitel and P.J Deitel : C how to program
5. E. Balagurusamy : Programming in ANSI C