

C++ Trainings



TOPICS NO	TOPICS TO BE COVER
1	Introduction to Object Oriented Programming
	<ul style="list-style-type: none"> • OOP Languages • Advantages of OOP • Comparing with Procedural Programming • What is Data Abstraction? • What is Encapsulation? • What is Object and Class? • What is Inheritance? • What is Polymorphism? • Create a C++ Programs • Compiling a C++ Programs
2	Basics of C++ Language
	<ul style="list-style-type: none"> • C++ Keywords • Variables and Constants • Data Types • Basic Data Types • Derived Data Types • User-Defined Data Types • Introduction to Operators • Arithmetic Operators • Relational Operators • Logical Operators • Manipulators • Type Conversion • Type Casting Operators • Console I/O Functions • Stream I/O Functions
3	Introduction to Control Statements
	<ul style="list-style-type: none"> • If Statement • Nested if statement • Switch Statement • Nested Switch Statement • Break Statement • Continue Statement • Goto Statement • While Loop • For Loop • Do-While Loop
4	Functions

	<ul style="list-style-type: none"> • Declaring a Function • Defining a Function • Calling a Function • Passing & Returning Constants and Variables • Passing & Returning Structure Variables • Passing & Returning Reference Variables • Inline Functions
5	Classes And Objects
	<ul style="list-style-type: none"> • Defining a Class • Creating Class instances • Accessing Class Members • Defining Member Functions of the Class • Passing Objects as Function Arguments • Passing Array of Objects as Function Arguments • Returning Objects from Functions
6	Constructors and Destructors
	<ul style="list-style-type: none"> • Declaring and Defining Constructors • Characteristics of Constructors • Process of Constructor Invocation • Constraints on Constructors • Types of Constructors • Default Constructors • Parameterized Constructors • Copy Constructors • Declaring and Defining Destructors • Characteristics of Destructors • Constraints on Destructors
7	Introduction to Function Overloading
	<ul style="list-style-type: none"> • Function Overloading • Function Overriding
8	Inheritance
	<ul style="list-style-type: none"> • Defining a Derived Class • Accessing the Base Class Members • Accessing Protected Members • Derived Class Constructors • Type of Inheritance • Access control in Protected Derived Class • Access control in Private Derived Class • Member Function in Multiple Inheritance • Constructor in Multiple Inheritance • Ambiguity in Multiple Inheritance
9	Operator Overloading
	<ul style="list-style-type: none"> • Overloading Unary Operators • Overloading Binary Operators • Overloading Comparison Operators • Overloading Arithmetic Assignment Operators
10	Virtual Functions

	<ul style="list-style-type: none"> • Accessing Normal Member Function using Pointers • Accessing Virtual Member Function using Pointers • Late Binding • Pure Virtual Function • Virtual Base Classes • Friend Function • Static Function
11	Streams Classes
	<ul style="list-style-type: none"> • Stream Classes • Header File • IO Flags • String Streams • Character Streams • Object Streams • File Streams
12	Exception Handling
	<ul style="list-style-type: none"> • Try Block • Catch Handler • Throw Statement • Catching All Exceptions • Restricting Exceptions • Rethrowing an Exception