

## C++ Programming

Course Level	:	Introduction
Course Duration	:	3 days
Prerequisites	:	Delegates should have a professional experience of the C programming language



### ▼ Course Content

#### ○ Course Objectives

#### ○ Introduction to C++

- Object Orientated Programming
- Moving from C to C++
- The Concept of the Class
- C++ Programming Structure

#### ○ Classes

- Creating a Simple Class
- Member Access Control
- Constructor and Destructor Functions
- Inline Functions

#### ○ Functions

- Default Arguments
- Function Overloading
- Friend Functions
- Symbolic Constants

#### ○ Objects

- Object Assignment
- Pointers to Objects
- Dynamic Memory Management
- Reference Variables
- Copy Constructors

#### ○ Inheritance

- Inheritance and Derived Classes
- Access Control in Derived Classes
- Constructors and Destructors
- Multiple Inheritance
- Virtual Functions
- Virtual Classes

#### ○ Operator Overloading

- Overloading Binary Operators
- Overloading Unary Operators

#### ○ Templates

- Class Templates
- Function Templates

#### ○ Streams

- Concepts and Classes
- Standard I/O
- Formatting Data
- Stream Manipulators
- Insertors and Extractors
- Error Handling

#### ○ File I/O Streams

- File Stream Classes
- Reading and Writing Files

#### ○ Workshop