

# **C++ Fundamentals**

**Modality: On Demand**

**Duration: 4 Hours**

## **About this Course:**

### **What is C++?**

C++ is a general-purpose programming language that emphasizes performance, efficiency and flexibility of use. It has a variety of uses and is best suited for large, resource-constrained systems, and has proved particularly strong in the software infrastructure and software entertainment, among many other areas. Initially developed in 1979 by Danish computer scientist Bjarne Stroustrup, it was standardized in 1998 and has been one of the heavyweights in the programming world ever since.

C++ is one of the most in demand programming languages in the software industry, and the language that many others derive from – Java being just one. Being somewhat more complex than others, it's not easy to find a C++ tutorial for beginners. However, if you want to boost your employability and fine tune your programming skillset to include C++ fundamentals, then this is the course for you.

### **Learn C++ Basics in a Flash**

This course has been specially designed for intermediate programmers who have already gotten to grips with basic programming languages. It's especially suitable for those planning to pursue programming as a serious career path. As C++ is a complex language, this course is not intended for complete beginners.

With 16 lectures and 3 hours of content, this C++ beginners tutorial will get you up to speed with the basics of the language first of all, including variables and literals, data types, data assignment, and the mathematical operations that C++ uses. Next, it's on to type conversions, overflow and underflow, formatting output, and string manipulation. The final section deals with control logic, including control structures, logical operators, conditional operators, and looping.

You will learn each of the concepts covered in this course with the help of practical examples and do-it-yourself style material, so that you'll instantly see how the knowledge you learn can be applied. By the end of this course, you will be ready to progress to intermediate C++ or at the very least, have a working knowledge of C++ fundamentals that can be built upon with practical use.

### **Audience:**

- Intermediate programmers

### **Pre-requisites:**

- Working knowledge of basic programming knowledges

## Course Outline:

### Course Introduction

- Course Introduction

### Language Basics

- More basics and Variables/Literals
- Data Types
- More about Data Types and Data Assignment
- MATH! (10:04)
- Why does C++ hate Division? Other Relevant Topics

### Math and Input

- Input and more MATH!
- Type Conversion, Overflow, and Underflow
- Formatting Output
- String Manipulation
- **More MATH!, again.**

### Control Logic

- Control Structures
- Logical Operators
- Conditional Operators and Switch
- Looping (while)
- Looping (do-while, for)