

# C++ Programming (5 Days)

In the beginning, C++ was a hard language to learn because it required programmers to master low-level techniques to work with memory. Over the years, C++ has evolved to provide higher-level techniques that make it much easier to write effective code.

This course uses modern C++ to get you off to a fast start, and then builds out your coding and OOP skills to the professional level. At that point, it also covers older techniques so you'll be able to maintain the vast amount of legacy code that's out there, as well as work with embedded systems that don't support the newer techniques.

#### Section 1 Essential skills for modern C++

- Chapter 1 An introduction to C++ programming
- Chapter 2 How to write your first programs
- Chapter 3 How to make decisions
- Chapter 4 How to code loops
- Chapter 5 How to work with I/O streams and files
- Chapter 6 How to work with data types, strings, and vectors
- Chapter 7 How to code functions
- Chapter 8 How to test, debug, and deploy a program

## Section 2 More skills as you need them

- Chapter 9 How to work with structures and enumerations
- Chapter 10 How to work with STL containers and iterators
- Chapter 11 How to work with STL algorithms
- Chapter 12 How to work with built-in arrays and C strings
- Chapter 13 How to work with exceptions

## Section 3 Object-oriented programming

- Chapter 14 How to define classes
- Chapter 15 How to work with inheritance

#### Section 4 Skills for legacy and generic programming

- Chapter 16 More skills for object-oriented programming
- Chapter 17 How to work with memory and pointers
- Chapter 18 How to work with templates
- Chapter 19 How to code custom containers, iterators and algorithms