

# Student Guide

- **Programming in C++**



# Course prerequisites

- To gain the most benefit from this course, students should have experience programming in C.
- Some basic knowledge of C++ is helpful, but not essential.
- Experience programming in a modern object-oriented language such as Java or C# is also sufficient



# Table of Contents

- Chapter 1      Language Primer & OO Concepts
- Chapter 2      Classes
- Chapter 3      Functions
- Chapter 4      Constructors and Destructors
- Chapter 5      Memory Management
- Chapter 6      References and Argument Passing
- Chapter 7      Initialization, and Assignment
- Chapter 8      Scope and Access Control

- Chapter 9      Introduction to Inheritance
- Chapter 10     Polymorphism and Virtual Functions
- Chapter 11     ANSI C++ Library
- Chapter 12     Templates
- Chapter 13     Multiple Inheritance
- Chapter 14     Input/Output in C++
- Chapter 15     Exception Handling
- Chapter 16     Runtime Type Information
- Chapter 17     Move Semantics
- Appendix      Practical C++ Programming



# Directory Structure

- The **Work** directory is provided for doing in-class demonstrations led by the instructor and for student lab exercises.
  - Example programs for each chapter are in named subdirectories of chapter directories **Chap01**, **Chap02**, etc.
  - The **Work/Labs** directory contains one subdirectory for each lab, named after the lab number.