

Week 1: Introduction to C++ and Basics

Module 1: Definitions

Lecture 1: Introduction to C++ Programming

Lecture 2: History and Importance of C++

Lecture 3: The Structure of a C++ Program

Module 2: Data Types

Lecture 4: Data Types in C++

Lecture 5: Variables and Constants

Lecture 6: Basic Input and Output (cin and cout)

Week 2: Operators and Control Flow

Module 3: Operators

Lecture 7: Arithmetic Operators

Lecture 8: Relational and Logical Operators

Lecture 9: Assignment and Compound Assignment Operators

Module 4: Conditional Statements

Lecture 10: if, else if, and else Statements

Lecture 11: switch Statement

Lecture 12: Ternary (Conditional) Operator

Week 3: Loops and Functions

Module 5: Loops

Lecture 13: while Loop

Lecture 14: for Loop

Lecture 15: do-while Loop

Module 6: Functions

Lecture 16: Introduction to Functions

Lecture 17: Function Prototypes and Definitions

Lecture 18: Function Parameters and Return Values

Week 4: Arrays and Strings

Module 7: Arrays

Lecture 19: Introduction to Arrays

Lecture 20: Arrays and Loops

Lecture 21: Multidimensional Arrays

Module 8: Strings (Basic Concepts)

Lecture 22: Introduction to Strings

Lecture 23: String Input and Output

Lecture 24: String Functions

Week 5: Object-Oriented Programming (OOP)

Module 9: Introduction to Classes

Lecture 25: What is Object-Oriented Programming (OOP)?

Lecture 26: Defining Classes

Lecture 27: Creating Objects

Module 10: Class Members

Lecture 28: Class Methods and Attributes

Lecture 29: Constructors and Destructors

Lecture 30: Access Control (public, private, protected)

Week 6: More on Classes and Course Review

Module 11: More on Classes

Lecture 31: Member Functions and Overloading

Lecture 32: Operator Overloading

Module 12: Course Review and Projects

Lecture 33: Review of Key Concepts

Lecture 34: Q&A Session

Lecture 35: Mini Projects and Assignments