Chapter 7: Arrays

Introduction to Arrays

Declaring and using arrays

Size of an array

Arrays of characters

Array Bounds

Chapter 8: Pointers

Introduction to Pointers

Declaring and using pointers

Pointer to char

Program Memory Map Revisited

Dynamic Memory Allocation

Dangling Pointers

When new Fails

Null Pointer Safety

Memory Leaks

Dynamically allocated arrays

Chapter 9: References

Introduction to References

Declaring and using references

Comparing pointers and references

References and const

Chapter 10: Character Manipulation and Strings

Introduction to Strings

Character Manipulation

C-string manipulation

C-String concatenation and copy

Introducing std::string

Default Constructors with Inheritance

Custom Constructors With Inheritance

Copy Constructors with Inheritance

Inheriting Base Constructors

Inheritance and Destructors

Reused Symbols in Inheritance

Chapter 19: Polymorphism

Introduction to Polymorphism

Static Binding with Inheritance

Dynamic binding with virtual functions

Size of polymorphic objects and slicing

Polymorphic objects stored in collections (array)

Override

Overloading, overriding and function hiding

Inheritance and Polymorphism at different levels

Inheritance and polymorphism with static members

Final

Virtual functions with default arguments

Virtual Destructors

Dynamic casts

Polymorphic Functions and Destructors

Pure virtual functions and abstract classes

Abstract Classes as Interfaces

Watch the full course below or on the freeCodeCamp.org YouTube channel (31-hour watch).