Class Structure [shoot for 20 minutes each]:

15-30 Minutes Lecture

20-40 Minutes Programming Exercises/Whatever

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20-40 Minutes Programming Exercises/Whatever

15-30 Minutes Presentation/Discussion

Non-specific materials:

A billion cpp programming problems and solutions

A class forum or something

Web links and support

Specific materials:

Examples

Presentations

Exercises

Tentative Schedule:

1. Week 1
   1. Basic Coding
   2. C++ Info
   3. Using Dev C++
   4. Hello World
   5. IO
   6. Data abstraction
2. Week 2
   1. More IO?
   2. Primitives (Basic Variables)
   3. Basic Memory and Size
   4. Operators
   5. Bitwise Operators?
   6. Control Flow
3. Week 3
   1. Control Flow
   2. Functions
   3. Function Overloading
   4. More Eclipse
4. Week 4
   1. Complex Variables
   2. Strings
   3. Arrays/Array List/Hash Map etc.
   4. Enumerations
5. Week 5
   1. Console Output Detail
   2. Exceptions
   3. More Eclipse
6. Week 6
   1. Files
   2. Access Modifiers
   3. Packages
   4. Importing
   5. File I/O
7. Week 7 – 9?
   1. Abstraction
   2. Encapsulation
   3. Objects
   4. Classes
   5. Inheritance
   6. Polymorphism
   7. Interfaces
   8. Abstract Classes
   9. Lambda Expressions?
   10. Using Classes, Inheritance, and Polymorphism
8. Week 10
   1. Memory
   2. Pointers
   3. More Pointers
   4. Dynamic Memory
   5. Java Memory Management
   6. More Java Organization
   7. Java Documentation
9. Week 11
   1. Exporting Code
   2. Jar files
   3. Class path and stuff
   4. Console Applications
   5. Graphical Applications
10. Week 12
    1. Graphical Applications!
    2. Swing
    3. Basic Drawing
    4. Mouse Input
    5. Keyboard Input
    6. Pong?
11. Week 13-16
    1. Final Projects?

What to cover:

Dev C++

Data abstraction

Console IO – cin/cout - details

Variables

Casting

Operators

Math

Character Math

Control flow

Functions

Function overloading

C Preprocessor

Loops

Recursion

C-Strings

File IO

Memory and Size

Pointers

Structs

Enums

Access Modifiers

Data Structures IMPORTANT

Std library structures, vector<>, stacks, queues, etc.

Linked lists

Classes

Inheritance

Polymorphism

Templates? Templates are usually bad and are complicated af

Lambda expressions? Idk what is, looks complicated af

Windows applications/Graphical applications

Probably important algorithms for the rest unless people want to do other things or work on projects or whatever.