

Final Exam Topics

- Issues relating to scope and lifetime
 - Automatic vs. Dynamic objects
 - Associated problems with dynamic memory
 - Dangling pointers
 - Memory leaks
 - Managing memory problems with constructors, destructors, assignment operators

Analysis and Design

- Identifying classes and objects
- Association, aggregation, inheritance
 - What each means
 - How diagrammed in design notation
 - When used over other choices

C++ Concepts

- Syntax for declarations and definitions
- constness - use of const
- Aggregation, assoc., inheritance in C++
- Details of inheritance in C++
- Template classes and functions
- Operator overloading
- Standard Template Library

Philosophy

- Software engineering goals and OO concepts
 - Which constructions support reusability?
 - How do constructions affect flexibility or extensibility?

Format

- Length slightly longer than usual
- Coding questions similar to second exam
 - except be able to write immaculate class declaration
- Some short answer
- Some fill-in, multiple choice, true false
- Possible that some old questions may reappear in new forms