

**COP3330 – Summer 2011
Final Exam Review Sheet**

25% of the exam will be on pre-midterm material.

75% of the exam will be on the following:

Copy Constructor:

- Know what it does (shallow vs deep copy).

- Know when it is called.

- Know what it looks like and why the parameters are passed the way they are.

- Know how to declare and define (with deep copy).

Assignment Operator:

- Know what it does (and how it differs from the copy constructor).

- Know when it is called.

- Know what it looks like and what it returns.

'this' pointer:

- Know what it is all about.

Inheritance:

- Know the basics (derived vs. base, how to declare, how the “is a” relationship works)

- Be able to look at a derived class and know what it has access to (protected vs private)

- Know the order in which constructors/destructors will run, and how to pass parameters to base class' constructors from derived class constructors.

- Know about function overriding, how can we access the original version of an overridden function.

Polymorphism:

- Know how to create and use a heterogeneous array! (like in Student project)

- Know about pure virtual functions and abstract class.

Templates:

- Know how to declare and define templates.

- Know how templates compile.

- Know template compilation convention (.h and .hpp)

- Know the limitations on what types can be compiled against a template function.

Data Structures:

- Know the pros, cons and basics of each data structure.

- Be able to implement linked list.

Exceptions:

- Know the basics.