CIS 15 **Spring 2007** **Jansen**
FINAL Review Sheet

The FINAL will include True/False, Multiple Choice, and some Homework style Questions, drawing from ALL of the Material Covered in Lectures 1 through Lecture 22 with a particular focus on the questions from the MIDTERMs that were difficult for the class as a whole.
You will be allowed to bring in one (1) 8.5" by 11" sheet of notes into the exam with you.

Topics	**Lecture**
Inheritance Constructor / Destructor Inheritance Redefining functions in an inheritance hierarchy Using the scope :: operator to call a specific Base Class function	19
Multiple File Programs Header (.h) and Source Files (.cpp) One Class, One File standard Include Guards	20
Pre-processor Role of the pre-processor in the compilation process #include <> vs. #include "" #define as a constant, and as a macro	20
Vectors (Intro. to the STL) What is the STL? Defining a vector Accessing members of a vector, for-loop, using the size() member function `Adding an element using push_back()` Using vectors with Objects Using dynamically allocated Objects with vectors. Identify memory *leaks* with respect to dynamic objects in vectors.	21
Polymorphism Concept of Polymorphism Up-casting, and Down-casting Objects in Inheritance Hierarchy Virtual Functions Static (early) binding vs. dynamic (late) binding of functions. Function overriding vs. redefining Importance of Virtual Destructors Abstract Base Class `Making Pure virtual functions with = 0` Multiple Inheritance and concept of Interfaces	21
Friends Define and Identify Friends of Classes	21
Static Members Define and Identify static members of Classes	21