

**COP 3330 – Object Oriented Programming in Java**  
**Quiz 3 Review**

**Quiz Date: 3/13/2026**

**Time: 12:30 pm (come early)**

**Location: CB2-106 our classroom**

Outline of course material thus far:

1. Defining Your Own Class
  - a. How to choose and list instance variables
  - b. Defining Constructors
  - c. Defining Instance Methods
  - d. Method Overloading
  - d. Role of static variables
  - e. Role of static methods
  - f. How to add methods to an incomplete class
  - g. HAS-A relationship
2. Inheritance + Polymorphism
  - a. Syntax for defining a class that inherits from another class.
  - b. Role of protected instance variables.
  - c. When and how super() gets called for constructors.
  - d. How to override a method from a base class
  - e. How to decide when it's necessary to override a method from a base class.
  - f. Distinction between reference types and object types.
  - g. Coordinate/ColorCoordinate example
  - h. fraction/mixedfraction example
  - i. Pacman example
  - j. Polymorphism definition
  - k. Rules for compilation of code with inheritance
  - l. Rules for how a method call at compile time is bound to a specific method signature.
  - m. Once bound at compile time, rules for which method IS ACTUALLY executed.
  - n. Understanding the advantages of inheritance via code reuse
  - o. Tracing Examples!
3. Interface and Comparable Interface
  - a. Rules for defining an interface (syntax)
  - b. Rules for building a class that implements an interface
  - c. Shape2D example
  - d. Comparable interface in Java and use of generic
  - e. Sorting Student Presentation example
  - f. Other examples: Sideways Sorting, Sort of Sorting

### **Quiz Format**

Short Answer

Coding Questions – write code segments, fill in solutions to full programs, won't have to write boring template code (public static void main...)

Tracing questions

75 points

Defining Your Own Class – 20 to 30 points

Inheritance and Polymorphism – 20 to 30 points

Interface and Comparable Interface – 20 to 30 points

### **Quiz Aids**

None

Necessary Java documentation will be provided