**ICS 108 – Object-Oriented Programming**

**Lab # 12 – Polymorphism**

**Objectives:**

In this lab, the following topic will be covered:

1. Polymorphism

**Task**

Create a class called **Vehicle** that contains fields for the vehicle's **maximum speed** and **number of wheels**. Provide both a no-argument constructor and a two-argument constructor. Override the toString() method to return all data fields.

Create a subclass of Vehicle called **Bicycle** that contains a field for **the number of gears on the bike**. All bikes should have two wheels. Override the toString() method to return all data fields (use the toString() method of the Vehicle class).

Write a test program that declares an array of type **Vehicle**. Make some elements **Bicycle** objects and some elements **Vehicle** objects with values of your choice. Write a loop that runs through the array, printing each object in the array.