COSC 338 – Computer Graphics
Project 1
Spring 2008

Objective: Become familiar with basic GLUT/OpenGL functionality.

Your Task: Use the tools at your disposal to create a GLUT/OpenGL program that will display various 3-dimensional objects and give the user the ability to manipulate those objects.

You should create a sphere, a pyramid and a cube. For each of these you should be showing the "wire-frame" of the object.

The user should be able to manipulate the object using the following keys:
W/S – rotate the object around the x-axis.
A/D – rotate the object around the y-axis.
Spacebar – change the object to the next object in the sequence
C – change the color of the object lines from solid red to solid blue to solid green.

These should all be displayed on a black background with a window size of 500, 500.

Bonuses (10pts each):

Bonus 1: Create a button that will zoom in and out on the object.

Bonus 2: Give the user the ability to select the object using the mouse. The indication should be to change the color of the object.

You may work in teams of two for this project. If you choose to work in teams, you must email me your team members by 1/29.

Expectations: The code should be clean, concise, well-commented and correct. If you use an outside source, be sure to document that source. Significant use of outside sources will result in a deduction. Grading rubric and example binary will be provided a week ahead of the due date.

DUE: February 7th, 11:59pm via Digital Dropbox