COMP5/6400 Programming Assignment 3: 3D Student Model and Transformations

Duration: **Two weeks**

Due Date: **Wednesday night, 11:59 PM, March 5, 2014**

Requirements:

1. The window size should be at least 500x500.
2. The window's title should be "COMP-5/6400 Assignment 3 – Spring 2014"
3. The focus of this assignment is to design a College of Engineering student in 3D
4. The student must wear T-shirt and shorts, and hold a cellphone or other device
5. You should have at least 30 geometric primitives in your student model. This means you need at least 30, for example, polygons to represent your student.
6. Use smooth shading on all primitives. This can be done by defining the color before each vertex and using glShadeModel(GL_SMOOTH).

Description:

In this assignment, you will extend your 2-D world into 3-D. The program must allow a user to, at least, translate, rotate, and scale the student. Design your own ways of handling the interactions, e.g., pressing the Up key to move forward by 5 units; pressing Right Arrow key to turn clockwise by 5 degrees. Since handling 3-D transformations can be trickier than 2-D, you need to make sure your interface design follows common sense. Also, you need to explain the functionality of your design in the comments of your code. Place the comments, in the beginning of your code.

If you desire, you may implement additional transformation(s) discussed in the class.

This assignment only requires you to show the student. It will be integrated into your Student Center in the next assignment.