Overview:

For this week's lesson we will be going over four different types of lights and how they are used in openGL. By the end of this tutorial you should be able to create ambient, distant, point and spot lights within OpenGL using shaders.

Materials Provided:

Week11-Tutorial-Ambient - A tutorial on how to apply ambient light to a model in OpenGL.

Week11-Tutorial-Distant - A tutorial on how to apply distant light to a model in OpenGL.

Week11-Tutorial-Point - A tutorial on how to apply point light to a model in OpenGL.

Week11-Tutorial-Spot - A tutorial on how to apply spotlight to a model in OpenGL.

Week11-CodeProvided - A Compilable source to help with this weeks assignment.

Hint: The majority of this work is done using shaders.

Objective:

The objective of this weeks lesson is to create a program that applies all 4 lighting types to a single model. To accomplish this we will be using shaders and The Phong Model to apply the correct lighting.

Phong's Model:

Information on the Phong Model and how it works can be found at:

http://www.siggraph.org/education/materials/HyperGraph/illumin/specular_highlights/phong_model_specular_reflection.htm