

**CMSI 671**  
**COMPUTER GRAPHICS (GRADUATE LEVEL)**  
Spring 2007

### Assignment 0206

Now that you have gotten a decent amount of OpenGL programming practice, it's time to flesh out your graphics research project for the semester.

#### Not for Submission

1. The concepts of 3D viewing, viewing volumes, "camera" positioning, and transformations can be found in greater detail in Angel Chapters 4 (Sections 4.7 and 4.1) and 5 (Sections 5.1–5.3, then 5.5). The presentation of the material is slightly different in the text, taking a bottom-up rather than top-down approach. We'll get to the lower-level fundamentals (i.e., the remainders of those chapters) eventually.
2. The red book covers these same topics from an API perspective in Chapter 3, while texture mapping is covered in detail in Chapter 9.

#### For Submission

Edit the *your-lastname-671-prospectus.tex* file that you have already committed to CVS so that it now contains your actual project proposal. Include any details, features, or requirements that you have at this point in time; this will help in refining and finalizing your project. Commit the new version of this file, and tag it as *hw-0206*.

Over the next two weeks, we'll work toward a final version of your project proposal.

#### Extra Credit

This is a bit of a side trip, but if you're interested, you'll learn a little bit about JOGL and 3D programming in Java.

A few years ago, an individual studies student of mine implemented some advanced 3D graphics demos in JOGL. Information about these demos is available at this URL:

*<http://dguzoccomputergraphics.blogspot.com>*

However, since that time, the JOGL API has changed to the point that the original source code will no longer compile under the latest version of JOGL. You will get an extra assignment credit if you download this code, edit it for compatibility with the latest version of JOGL, and commit a patch to this code to CVS using *unified diff* format.

Commit the patch file under */homework/cmsi671/jogl-demos-patch* and tag it as *hw-0206*.