



Faculty of Business and Information Technology

INFR 1350U: Intro to Computer Graphics

Assignment #1 – Object Loader – 5% of Final Grade

Due Date: October 19th (11:59pm)

For this assignment, you will begin writing the code necessary for populating a virtual game world. Given your existing knowledge on OpenGL, you must now load your mesh data from a .obj file.

Your program should:

- Load an .obj file of your choice or making (custom code only, no libraries)
- Render two copies of the mesh side-by-side
 - **You must NOT load the .obj file twice or have two copies of the mesh in VRAM!**
- Rotate both meshes slowly over time
- Render both meshes as flat-white (basic shaders)
- Switch between Orthographic and Perspective cameras when the space-bar is pressed

Notes:

- All obj loading code and OpenGL code must be written by hand – no online libraries
 - Glew, Glad, Glut, SFML, GLFW, GLM, etc. are still allowed
- Your code may assume that the mesh will have UVs and Normals (denoted by 'vt' / 'vn')
 - You should load these attributes, but you don't have to use them in this assignment
- Your loading code should be able to handle commented lines in the .obj (denoted by '#')

You may develop this project by expanding on any code given in-class or tutorial.

Item	Contribution
Two flat-color meshes loaded and rendered	3.0%
Space switches between cameras	1.0%
Data is not loaded twice or duplicated	0.5%
Meshes rotate	0.5%

Be sure to submit your code and executable program by following the submission guidelines in the syllabus (section 9, Assignment Submissions).