

# CGT 521

## Lab Assignment #1, part 3

Lab 1.1, 1.2, 1.3 to be graded in class before 1/29/2020 1:00pm

### Debugging OpenGL

The goal of this lab assignment is to add a useful debugging feature to the OpenGL class template. You should include this feature in all future assignments.

- Make sure you can run both Debug and Release builds of your template project. You may need to copy some Project settings from one configuration to another if you only set values for one configuration when creating your template.
- Get the DebugCallback files from Blackboard and add them to the project. DebugCallback.h includes instructions for enabling the debug message callback.

Read Appendix H in the textbook and the blog post at <https://blog.nobel-joergensen.com/2013/02/17/debugging-opengl-part-2-using-gldebugmessagecallback/> for more details.

Rubric for Lab 1, parts 1,2,3.

- Your project file in Visual Studio should be named Lab 1. [20 pts]
- You have an imgui button which reloads the shader. [20 pts]
- You are passing time to the shader as a uniform variable. [20 pts]
- Your **uniform and attribute** variables are using layout qualifiers. [20 pts]
- Your program displays debug output in debug builds only. [20 pts]