

# CS 457/557 – Live Lecture Chat Window

## February 17, 2023

**15:16:23 Can we use Tessellation and Geometry shaders as well [for the Final Project]?**

Definitely! You can use anything shader-related. You might have to look ahead in the notes to find out how to use some of these things though.

**15:21:20 Is there a textureSize( ) function for texture3D? Is it different for Mac?**

Yes. Same function, but since it recognizes you are asking about a `GL_TEXTURE_3D`, it returns an `ivec3`.

**15:30:35 Is the image on a quad object? or does OpenGL allow you to open images?**

OpenGL only draws geometry. So, to “draw” an image, you texture map it onto a quad.

**15:35:26 Can the [chromakey] screen be a different color than green?**

Yes, it could be any color you don't think will be used elsewhere in the scene. Typically, it is bluescreens or greenscreens that are used.

**15:54:01 Do these same image manipulation formulas work on 3D texture images that wrap objects?**

Typically, it is 2D images that wrap objects. So, yes.

**16:11:46 What does “m” represent in the equations on the oil slick and diffraction grating slides?**

It is an arbitrary integer representing how many cycles there are between the two light waves. As long as  $m$  is an integer, the two waves are in phase, and thus reinforce each other. The CG trick is to find an  $m$  that makes the “magic wavelength” something in the visible light spectrum so that we can see it.