

MUĞLA SITKI KOÇMAN UNIVERSITY
CENG 3547 INTRODUCTION TO COMPUTER GRAPHICS
FALL 2020-2021
HOMEWORK 1I

HAND OUT: 08/12/2020
DUE DATE: 22/12/2020, 23.59

SHADERS

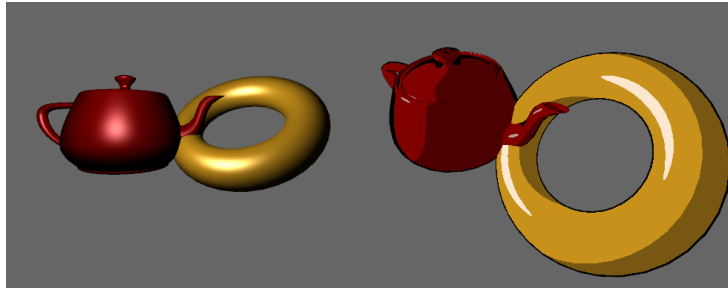
PART 1: FIXED FUNCTION PIPELINE VS PROGRAMMABLE SHADERS

In this part of your assignment, you are asked to write a min. 3 pages report about the evolution of shaders when compared to fixed function pipeline.

Your report should include:

- Fixed function pipeline details
 - Traditional processing
 - Vertex arrays
 - Shading
 - Texturing
- Programmable shaders details
 - History of shaders
 - GPU and performance
 - Variable types
 - Vertex, fragment, tesellation, geometry shaders
 - GLSL
 - Shading
 - Texturing
 - Scientific visualization
- OpenGL ES
- WebGL
- Supporting figures, tables and images with appropriate references

PART 2: TOON SHADER



<http://www.cs.unc.edu/~sjguy/ImgSynth/ass4/main.html>

In the second part, you are expected to write a simple Toon shader, aka, Cel shader. Toon shading is used to render the scene looking like non-photorealistic cartoons. You can implement your shader using API or on an online source.