

CSE 167: Introduction

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1 Course Overview

The class will cover a number of introductory topics within the field of computer graphics.

1.1 Rendering

The class will have a focus on interactive rendering, which here means generating 2D images from 3D scene descriptions at a very high frame rate. The 3D scenes will consist of 3D models, created ourselves using procedural generation techniques, 3D scanning of real objects, or modeling software like Blender and Maya.

1.2 Other Topics

OpenGL (lighting, texturing, shading), GLSL, culling (reject noncontributing objects for efficiency), parametric curves and surfaces, procedural modeling, environment mapping (for rendering shiny surfaces, esp. mirror surfaces), shadows, deferred rendering (render w.r.t. geometry and lights in different passes for efficiency)