Notes for ECE 30834 - Fundamentals of Computer Graphics

Zeke Ulrich

August 25, 2025

Contents

 $Course\ Description \qquad 1$

Introduction 2

Course Description

Fundamental principles and techniques of computer graphics. The course covers the basics of going from a scene representation to a raster image using OpenGL. Specific topics include coordinate manipulations, perspective, basics of illumination and shading, color models, texture maps, clipping and basic raster algorithms, fundamentals of scene constructions.

Introduction

This class will be focused on interactive computer graphics over noninteractive graphics. In this class we will implement an interactive computer graphics engine in a basic programming language like C. A good understanding of professional and debugging and unit testing is required.