



Computer Science 112

The Art & Science of Computer Graphics

The College of Saint Rose
Spring 2013

Topic Notes: Introduction

What is Computer Graphics?

Computer graphics is a relatively young but very rich field. Active research is ongoing.

In short, the field is concerned with visual output from a computer.

- Historical
- Gaming
- Photorealistic images (television, movies)

So what can we do in a computer graphics course with no prerequisites?

We will focus on creating images (and later, animations) of objects in a scene. I will show you how to use the tools and you need to bring your artistic abilities.

Along the way, you will learn how to write computer programs that describe the scenes to the computer and specify how to create images of those scenes. You will learn some of the science behind the techniques that are used to create, store, and display these images from our scene descriptions.

The Mead Modeling System

We will spend most of our time this semester learning one particular tool that can be used to generate images and animations: The Mead Modeling System.

Mead will allow us to describe the objects we want in the scene, the properties of those objects, the lighting, and the position of the camera. From this description, Mead will generate the image or series of images.

As time goes on, we will learn to use more and more features of Mead that will allow us to build more complex scenes that will be the subjects of our images and animations.