Course and Contact Information

Instructor:	Kevin Smith
Office Location:	DH 282
Email:	kevin.smith@sjsu.edu
Office Hours:	Wednesday 2:00-3:30 PM or by appointment
Class Days/Time:	MW 12:00-13:15
Classroom:	MH 223
Prerequisites:	CS 116A (with grade of C- or better) or instructor consent

Catalogue Description

In-depth discussion of algorithms and techniques used in computer graphics and their implementation. Topics include: animation, fractals, anti-aliasing, fill algorithms, visible surface algorithms, color and shading, ray tracing, radiosity and texture maps. Substantial programming required.

Course Description

In this course, you will learn the apply the foundations you learned in CS 116A towards learning and applying modern graphics techniques used today in the media and entertainment industry. Topics will include advanced rendering including global illumination, subdivision surfaces, physics-based animation such and particle and dynamics systems and advanced character animation including skin/muscle deformations. Course will focus on study of existing tools and custom software development.

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

1: Learn advanced rendering concepts using a commercial renderer as a case study.

2: Learn how to develop physics-based animation systems used in many films and games.

3: Learn theory and techniques for developing realistic computer-generated characters.

4: Gain some experience using industry standard tools used in production.