

COURSE: ART 195 - 3D Modeling for Animation  
INSTRUCTOR: KIRK MILLER

## SYLLABUS

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**OVERVIEW:** Welcome to the world of 3D Modeling. This course is an overview of high-end 3D imaging techniques using LightWave; it involves weekly exercises emphasizing an understanding of modeling, surfacing, lighting, and rendering tools. At specified intervals, students will execute a series of projects from concept to completion. These assignments, which are equivalent to tests in lecture classes, are designed to review the principles learned in the exercises and provide the student an opportunity to put the skills they have developed to practical use. Upon completion of this course, students will be able to model, surface, and render 3D models using Lightwave. The evaluation of student work is based on local industry standards.

**GRADING:** Grades are determined by the completion of exercises, assignments and a final project, which are based on a point system. Exercises are worth approximately 20-25% of the grade; the assignments and final project, are worth approximately 75%. The final project is due the last regular day of class prior to finals week. Attendance is mandatory.

**WEEK 1:** Introduction  
3D System Overview  
Quick Tour & Overview of LightWave

**WEEK 2:** Modeling Procedures  
Working with Primitives  
Class work: Create Table & Lamp

**WEEK 3:** Modeling Procedures (continued)  
Working with Primitives (continued)  
Class work: Table & Lamp Due  
Homework: Model Reboot character

**WEEK 4:** Boolean Modeling  
Homework: Reboot character (continued)

**WEEK 5:** Surface / Texture Maps

- Homework: Reboot Model Due (Critique)  
Bring in simple toy
- WEEK 6:** Surface / Texture Maps (continued)
- Homework: Model simple toy
- WEEK 7:** Basic Lighting and Rendering
- Class work: Toy (continued)
- WEEK 8:** Advanced Construction  
Path Extrude, Metaballs, etc.
- Class work: Toy (continued)
- WEEK 9:** Advanced Construction (continued)
- Class work: Toy (continued)
- WEEK 10:** Working with Type / 3D Text
- Class work: Toy Assignment Due (critique)  
Homework: Bring ideas for Final Project
- WEEK 11:** Advanced Modeling Techniques  
Organic Modeling / Subpatch Tool
- Class work: Modeling a Bowl, Cup, Frying Pan, Fork, Plate,  
Teapot, Spoon  
Homework: Final Project (continued)
- WEEK 12:** Advanced Modeling Techniques (continued)
- Class work: Modeling a Bowl, Cup, Frying Pan, Fork, Plate,  
Teapot, Spoon (continued)  
Homework: Final Project (continued)
- WEEK 13:** Advanced Surfacing Techniques  
UV / Atlas Mapping
- Class work: Mapping a cereal box & Head  
Homework: Final Project (continued)
- WEEK 14:** Advanced Surfacing Techniques (continued)  
Sas Lite , Surface Baker, Vertex Color Maps
- Class work: Adding hair, fur, grass  
Homework: Final Project (continued)

**WEEK 15:** Displacement Maps & Sky Tracer

Class work: Final Project (continued)

**WEEK 16:** Advanced Lighting & Rendering Techniques

Class work: Final Project (continued)

**WEEK 17:** Class work: Final Project Due

**WEEK 18:** FINALS: Final Critique