

Design for 3-d Applications

Computer Applications for 3-d Animation

Instructor: Greg Martin
Multimedia 300 / 430 room: LRC 233 Spring 2013

Course Syllabus:

Course Objectives and Student Outcomes:

This course will introduce students to the role and applications of computer animation in the entertainment industry, architectural and industrial design, and scientific simulation.

The student will be introduced to the concepts, work flows and techniques of industry standard software: Maya 3d.

The student will: Create 3D models and environments using planes, NURBS, geometric forms, and manage files and workflow needed in the animation production pipeline.

Students will also explore common concerns in computer animation such as: texturing, lighting, and animating through the completion of a variety of problem solving projects.

Instructor demos and video examples will be shown in class.

Many of the projects will require the student to work during lab hours.

The posted lab hours can be found here:

<http://lamission.edu/multimedia/labs.html>

Grading policy:

Grading is based on the successful completion of the instructor's assignments. Emphasis will be placed on design and creativity as well as technical problem solving. All projects and scenes must be completed by their due date. Late assignments will be graded down. Work ethic, class participation, and academic growth will also contribute to the student's grade. Students are responsible for backing up their work. (Student network space will be available, but it is also advisable to back up onto usb or flash drives, etc.) All files should be kept until the end of the semester for final review.

Attendance:

*Students must attend all classes and are expected to be on time.

*3 absences will lower overall grade by one grade.

*Arriving late (more than 45 minutes) or leaving early 3 times will count as an absence.

*Late assignments will be lowered by one grade.

*Missing assignments will be graded as a F.

In addition to your attendance, you will be graded on how well you have completed the course assignments, in class quizzes, and any additional in class projects.

I will be looking at:

- the completeness of the assignment
- was it completed on time
- the artistic and aesthetic merits of the project
- the technical problem solving skill level.
- level of focus and engagement in the class.

Office Hours:

I am available for office hours by appointment only. I can also be reached by email at:

gm121212@yahoo.com.

Also note that individual help is available during class hours.

Students with Disabilities: Students with disabilities who need reasonable modifications, special assistance, or accommodations in this course should promptly direct their request to the instructor. If a student with a disability feels modifications, special assistance or accommodations offered are insufficient he/she should seek the assistance of the Director of Disabled Student Programs and Services on campus.

Project Schedule: (SUBJECT TO CHANGE)

Week1 2/4/13: Class introduction and enrollment. Maya overview.

Week2 2/11: Maya Interface: "Logo" Animation. Topics: Text Tool, Extrude, Set Key Frame

Week3 2/18: Modeling Polygons: "Block" assignment. Topics: Create Polygon Tool, Split, Snap (QUIZ?)

Week4 2/25: Modeling Nurbs Surfaces: "Nurbs Head" assignment. Insert Isoparm, Attach /Detach, Sculpt

Week5 3/4: Bend Shapes / facial animation Topic: Lip Sync

Week6 3/11: Modeling Subdivision Surfaces: "Spacecraft" assignment. Topics: Extrude, Lattice, Smooth

Week7 3/18: MIDTERM EXAM. Texturing / Rendering: "Telephone" assignment. "Desk Lamp" Topic: UVs

Week8 3/18: "Rolling Ball" assignment. Car Animation Topics: Motion Path, Measuring Tools

Week9 2/25: Dynamics: "Volcano" assignment. Topic: Particle animation.

Week10 4/1: SPRING BREAK (college closed - please check date)

Week11 4/8: "Character model" assignment. (QUIZ?)

Week12 4/15: "Character rigging" assignment. Topics: Bones, Joints, Skeletons, IV / FK kinematics

Week13 4/22: Finish character rig

Week14 4/29: "Walk cycle" assignment. Topics: Character animation.

Week15 5/6: Finish walk cycle.

Week16 5/13: Review. Finish remaining projects.

Week17 5/20: FINAL EXAM -all assignments are due for review. (*please recheck schedule!)

Week17 5/27: Memorial Day