

Course Syllabus
ART376 01
ADVANCED 3D COMPUTER ANIMATION
3 Credit Hours
Spring 2008

Room 217 Farrington
Tues/Thur 3:30 - 6:20
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Office hours – One hour before and after class as well as by appointment

Course Description

This course provides with certified training in Maya, a 3D computer animation program that is the standard in the industry.

It is designed for students who have some experience using 3D modeling and animating software and seek to continue developing their skills as animators. Topics include Polygonal and SubD modeling techniques; Joints, Deformers and Constraints; Inverse Kinematics; Lighting and Texturing techniques; Rendering and Compositing.

Course Objectives

At the conclusion of this course, Students should

- understand the Maya interface and dependency graph
- be able to use Maya to model and animate representations of 3 dimensional objects.
- be able to create virtual environments and lighting effects
- be able to use dynamics in an animated scene
- be able to create shading groups and texture maps and render scenes
- be able to compile rendered frames into a QuickTime movie with sound
- be able to learn fundamental principles, generalizations, or theories
- gaining factual knowledge (terminology, classifications, methods, trends)

Methodology

The course will be taught through lectures and demonstrations as well as through the examination and discussion of professional work. The software used will be Maya 8. Students will become familiar with Maya by completing one of the various Projects in the **Learning Autodesk Maya 8|Foundation** book that is available from www.Amazon.com website.

For the first few weeks of the semester, there will be demonstrations followed by lab time to complete your individual projects.

Upon the successful completion of your project, each student will work on an independent project of your choice. You will be required to present your idea for your personal project through pre visualization (i.e. 2D sketches, storyboards, thumbnails or

illustrations/color comps.) Your project will need to include the use of Maya's polygonal modeling and UV projection tools. You will also be asked to create custom textures generated through the use of Photoshop or Painter. The final required component of your project will be the use of Maya's set driven key feature.

Supplies

Sketchbook

CD-R's or CD-RW's, or jump drive

DVD-R

Required Text

Learning Maya 8 | Foundation Published by Autodesk

Attendance is mandatory

According to University policy, a student may miss 3 hours (that's one class period) before their final grade is affected.

In this course, you may miss two class periods before your final grade is affected. Use your absences wisely. I suggest saving them for when you are sick or in jail. Please do not ask me if you can miss class for personal reasons. If you have 3 absences, your final grade will be lowered 5 points, 4 absences –10 points, 5 –15, 6 –20, 7 –25. If you miss more than 7 classes, you will not pass the course. Students who are more than 20 minutes late will be counted absent. Students are expected to remain in class the entire period. You are responsible for all assignments and information given in class even if you are absent.

Assignments, Exams and Grading

Grade 1

Project 1, 2 or 3

Grade based on successful completion of tutorial.

DUE - Feb 1 Thur

25%

Grade 2

Pre Visualization- sketches, reference, and presentation

Grade based on ability to effectively articulate a cohesive, interesting and possible project. Grade includes descriptiveness of drawings, appeal of story or scene, and student's ability to "sell" project to class in presentation.

Due - Feb 6 Tue

25%

Grade 3

Final completed 3D scene

A. All models complete / Due – Mar 18 Tue

B. Models unwrapped / DUE - Mar 25 Tue

C. Terrain and road textures complete / DUE - Apr 3 Thur

D. Architectural textures complete / DUE - Apr 24 Thur
Final composition / DUE - May 13 Tue
50%

Grade based on successful completion of project and the artistic merit of your work.

Total = Final Grade

In this class 100-90=A, 89-80=B, 79-70=C, 69-60=D 59-0=F.

At the conclusion of each project, work will be discussed in a critique. Grades for each project will be based on craftsmanship and quality, as well as an expressed understanding of concepts. **All work must be turned in on time for full credit. An emphasis is placed on the artistic merit and appeal of your work!**

The grade of **C** is considered average. If work meets the minimum stated requirements for the project, it will be considered average in terms of design, concept and craft. Work that exceeds that basic expectation will have points added and fall into the **B** range, and exceptional work will earn an **A**. Work that fails to meet the minimum criteria for the project will receive **C-**, **D**, or **F**.

Grades for each project and exam will be posted on Blackboard within 2 weeks of the due date. Due to the amount of work required for the course, work cannot be re-done and re-submitted for re-grading. Extra Credit work is not allowed.

Academic Dishonesty

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honest and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

Students who submit work for credit that has been authored by anyone other than themselves, or who plagiarize (copy) work by others will fail the course and may be subject to further departmental and university discipline.

Classroom Rules of Conduct

Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus impedes the mission of the university. Cellular telephones and pagers must be turned off before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing or engaging in any other form of distraction. Inappropriate behavior in the classroom shall

result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

Students must abide by the posted lab rules concerning use of computers or lab privileges will be revoked.

No Food is allowed in the lab. Drinks may be brought in as long as they are kept on the center table and not placed on the computer tables. Please dispose of any trash (including newspapers) that you bring into the room. The privilege of consuming beverages in the classroom will be revoked if it is abused.

Visitors in the Classroom

Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.

Americans with Disabilities Act

It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request assistance with academically related problems stemming from individual disabilities by contacting the Director of the Counseling Center in Lee Drain Annex or by calling (936) 294-1720.

Religious Holidays

University policy states that a student who is absent from class for the observance of a religious holy day must be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. Students must be excused to travel for observance of a religious holy day. A student who wishes to be excused for a religious holy day must present the instructor with a written statement describing the holy day(s) and the travel involved. The instructor should provide the student with a written description of the deadline for the completion of missed exams or assignments.

The BFA Review

Immediately after completing the six foundation art classes: Art 161, Art 163, Art 164, Art 265, Art 271, and Art 260 all BA art students will meet with an Art Advisor and sign up for the BFA Review. Students who do not sign up for the Review will be blocked from registering for upper division art classes.

Students interested in pursuing a BFA in Art will be required to participate in the BFA Review process. Those who choose to continue on the BA path should be reminded that the BA degree requires 4 semesters of a foreign language.

Reviews are conducted each semester by the Art Department faculty. Students who pass the BFA review will be invited into the BFA Program.

Students who do not pass the Review will be given feedback on areas that need improvement. Those students will be directed to either reapply for a second review or remain in the BA program. Students are limited to two BFA applications. Those requesting a second review are advised to consult with faculty in their area of intended concentration concerning their progress and course of action.

Calendar Advanced 3D Animation (Subject to Change)

Jan 17 Thur	Introduction to class.
Jan 22 Tue	Intro to Maya/Interface
Jan 24 Thur	Intro to Maya/Interface/Hypershade
Jan 29 Tue	Intro to Maya/Basic workflows
Jan 31 Thur	Demos and Lecture. (Poly Tools)
Feb 5 Tue	Demos and Lecture. (Poly modeling using QUADS)
Feb 7 Thur	<i>Grade 1: Project Due/lab</i>
Feb 12 Tue	Demo - (Poly modeling terrain and roads) <i>Due - Pitch</i>
Feb 14 Thur	Demo -(Unwrapping terrain and roads)
Feb 19 Tue	Demo - (Poly modeling architecture)
Feb 21 Thur	Demo - (Unwrapping architecture)
Feb 26 Tue	Demo - (Poly modeling vehicles)
Feb 28 Thur	Demo - (Unwrapping vehicles)
Mar 4 Tue	Demo - (Poly modeling a tree and unwrapping it)
Mar 6 Thur	Demo - (creating a tree using Paint affects)
Mar 11 Tue	Holiday
Mar 13 Thur	Holiday
Mar 18 Tue	<i>Critique – Models complete</i>
Mar 20 Thur	Demo - Level of detail (LODS)
Mar 25 Tue	Demo - Basic Lighting in Maya (all models unwrapped)
Mar 27 Thur	Demo - Pallets / Creating terrain textures (Paint affects)
Apr 1 Tue	Demo - Creating road and transition textures
Apr 3 Thur	<i>Critique - terrain and road textures due</i>
Apr 8 Tue	Demo - Creating architectural textures
Apr 10 Thur	Demo - Creating decal textures
Apr 15 Tue	Demo - Creating foliage textures and using alphas in textures
Apr 17 Thur	Demo - Creating a sky dome and texture
Apr 22 Tue	Demo - Creating a environmental texture (render and paint)
Apr 24 Thur	<i>Critique – architectural textures due</i>
Apr 29 Tue	Demo – Creating animated textures
May 1 Thur	Demo – Creating specular, bump and normal maps
May 6 Tue	Demo – Animating the vehicle
May 8 Thur	Demo – Animating the scene (trees, dust blowing, water)
May 13 Tue	<i>Critique - final composition due</i>