

**Course Syllabus**  
**ART433 01**  
**Character Animation**  
**3 Credit Hours**  
**Fall 2007**

**Room 217 Farrington**  
**Mon/Wed 3:00 - 5:50**

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**Office hours - Thirty minutes before and after class as well as by appointment**

**Course Description**

In this course students will study and practice techniques used in character design, modeling and rigging using 3D computer software. Designs for game animation will be compared with designs for film and video. Action and motion sequences will be created and studied.

Prerequisites: ART 269, ART 376

**Course Objectives**

The conclusion of this course, Students should be able to

- Design appealing characters for animation.
- Model characters using polygonal and Sub D techniques.
- Rig characters using joints and Forward and Inverse kinematics in preparation for effective animation.
- Be able to animate a variety of walking cycles and movements that are realistic and expressive.

**Methodology**

This course will be taught through lectures and demonstrations. Examples of work done by professionals and previous students will be shown. Students will create 3-4 projects throughout the semester. Each project will be followed by a group critique and discussion.

**Supplies**

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

**Required Text**

The Animator's Survival Kit by Richard Williams

### **Suggested reading**

The Illusion of Life by Ollie Johnston and Frank Thomas

Acting for Animators by Ed Hooks

Simplified Drawing for Planning Animation by Wayne Gilbert

### **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 and Grading**

<b>Grade 1: Walk cycle</b>		10%
Aug 22 Wed DUE / Grade based on Artistic merit.		
<b>Grade 2: Character loop</b>	10%	
Aug 29 Wed DUE / Grade based on Artistic merit.		
<b>Grade 3: Character loop</b>		10%
Sep 5 Wed DUE / Grade based on Artistic merit.		
<b>Grade 4: Character loop</b>		10%
Sep 12 Wed DUE / Grade based on Artistic merit.		
<b>Grade 5: Character loop</b>	10%	
Sep 19 Wed DUE / Grade based on Artistic merit.		
<b>Grade 6: Character loop</b>	10%	
Sep 26 Wed DUE / Grade based on Artistic merit.		
<b>Grade 7: Character loop</b>	10%	
Oct 3 Wed DUE / Grade based on Artistic merit.		
<b>Grade 8: Character loop</b>	10%	
Oct 10 Wed DUE / Grade based on Artistic merit.		
<b>Grade 9: Lip Sync Thumbnails</b>	10%	
Nov 5 Mon DUE / Grade based on ability to plan a solid animation.		
<b>Grade 10: Lip Sync test</b>	10%	
Dec 12 Wed DUE / Grade based on a demonstrated understanding of the principals of animation.		
<b>Total = Final Grade</b>		

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.

Calendar Advanced Animation  
(Subject to Change)

Aug 20 Mon	Introduction to class / Demo Walk Cycle
Aug 22 Wed	Demos and Lecture/ Demo Run Cycle
Aug 27 Mon	Demos and Lecture/ Demo Pitching baseball Cycle
Aug 29 Wed	Demos and Lecture/ Demo Bating baseball Cycle
Sep 3 Mon	<b>Labor Day Holiday</b>
Sep 5 Wed	Demos and Lecture/ Demo Fielding baseball Cycle
Sep 10 Mon	Demos and Lecture/ Demo Sliding baseball Cycle
Sep 12 Wed	Demos and Lecture/ Demo Jumping Cycle
Sep 17 Mon	Demos and Lecture/ Demo Idle animations
Sep 19 Wed	Demos and Lecture/ Demo Reaction animations
Sep 24 Mon	Demos and Lecture /Acting Concepts
Sep 26 Wed	Demos and Lecture/Pose to Pose
Oct 1 Mon	Demos and Lecture/What's Leading What
Oct 3 Wed	Demos and Lecture / Staging and Anticipation
Oct 8 Mon	Demos and Lecture / Lip sync
Oct 10 Wed	Demos and Lecture/ Facial Rigging / Clusters
Oct 15 Mon	Demos and Lecture/ facial Rigging/ Blend Shape
Oct 17 Wed	Demos and Lecture/ Joints and game engines
Oct 22 Mon	Demos and Lecture/ Skinning and game engines
Oct 24 Wed	Demos and Lecture/ Inverse Kinematics
Oct 29 Mon	Demos and Lecture/ Groups and Iconic Controls
Oct 31 Wed	Demos and Lecture/ IK/ Constraints / Controls
Nov 5 Mon	<b>Lip Sync Thumbnails DUE</b> / Constraints / Controls
Nov 7 Wed	Demos and Lecture/ IK Spline Handles / Set Driven
Nov 12 Mon	Demos and Lecture/ Animating Tales and Flags
Nov 14 Wed	Demos and Lecture/ Drag and follow through
Nov 19 Mon	Demos and Lecture/ Thumbnails / Clear Poses
Nov 21 Wed	<b>Thanksgiving holidays</b>
Nov 26 Mon	Demos and Lecture / Boards
Nov 28 Wed	Demos and Lecture / Sneaky Walk
Dec 3 Mon	Demos and Lecture / Angry Walk
Dec 5 Wed	Demos and Lecture/ Sad walk
Dec 10 Mon	Demos and Lecture/ Character Reaction / Takes
Dec 12 Wed	Lip Sync Test DUE

## Students Repeating the Course

If you are taking the course for the second time, you will be working more independently on the following projects. Attendance in class, however, is required.

### **Project 1: Character Development and Design.**

Begin by verbally describing your character. Write a description of his or her *characteristics*. Are they smart or stupid, evil or good, slovenly, clumsy, heroic, afraid of heights, vain, proud, shy, confident, athletic, prissy, etc. These characteristics will determine the way your character looks.

Gather research material. For example, if your character happens to be a bunny rabbit, find pictures of rabbits that you can use as reference.

Do sketches of your character. The character must have two legs and walk on them. Otherwise it may be anything. Try to create a character that has some of the qualities in your description in the way he or she looks. Don't be satisfied with your first drawing. Do it several times, refining it each time. When you are happy with your character, draw it with a variety of expressions (happy, sad, etc).

### **Project 2: Modeling the Character.**

In Maya, create a Model of the Character, give it skeleton, surfaces, and prepare it for animation.

### **Project 3: Walk Cycles.**

Create three different walk cycles that can be looped.

The walk cycles should express different ways the character is feeling. For example a normal walk, an exhausted walk and a perky walk.

Render the three walks.

### **Project 4: Compositing.**

Videotape a scene as an environment for your character. Animate the character in this environment. For example, videotape a room with a chair and have the character walk in and sit down. (Try to be more interesting than that, but remember to keep it simple enough that it remains in the realm of possibility.) Or videotape a tree and have your character swing from a vine, or jump out of it.

Each Project is worth 25% of the final grade. They must be turned in by the deadline for full credit.