

**Course Syllabus**  
**ART464 01**  
**Computer Animation for Interactive Games**  
**3 Credit Hours**  
**Spring 2008**

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

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**Office hours – One hour before and after class as well as by appointment**

**Course Description**

This course provides certified training in 3DS Max, 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. Animation and modeling techniques as they apply to interactive video games are studied. Topics include polygonal modeling, character rigging, surface mapping, world building, sound effects and story development.

**Course Objectives**

At the conclusion of this course, Students should

- understand the 3DS Max interface as it applies to games.
- be able to use 3DS Max to model and animate representations of 3 dimensional objects.
- be able to create virtual environments and lighting as they apply to games.
- be able to create convincing efficient textures for real time environments.
- be able to create shading groups and texture maps and render scenes.
- be able to export efficient and affective assets to a game engine.
- developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course
- acquiring skills in working with others as a member of a team

**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 3DS Max 9. Students will become familiar with 3DS Max 9 through the use of a specific work flows and procedures used in game development. The majority of the semester will be spent focusing on the modeling and unwrapping tools in Max. Students will be required to spend as many hours outside of class as they do in class mastering these tools.

## **Supplies**

Sketchbook

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

DVD-R

## **Required Text**

None

## **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**

### **Project overview:**

In this class you are going to be making one environment twice. You will choose two architectural styles that are seen 2000 miles apart. The first version you make will be a maximum of 6000 polys and the higher resolution for your final will be minimum 25000 (with normal mapped reference). Style is open for discussion, but I lean toward the photo-real.

### **Grade 1: Style Sheet, 20 Images of Structural, 20 Images of Secondary Assets**

**5%**

Style Sheet consists of several architectural drawings of different styles for years past. Also you will need to turn in 40 reference images from the styles you will use in your projects

### **Grade 2: Environmental B/W Comp**

**5%**

This should be in the vein of <http://www.goodbrush.com/> but more in the early stages of the color comp. We are looking for the forms and lighting in this one...rough.

### **Grade 3: Environmental Color Comp**

**5%**

In the vein of <http://www.goodbrush.com/> we are looking for style color emotion we are trying to get from the final project...rough. Something to be inspired and aim for...

### **Grade 4: Low-Poly Assets**

**5%**

Your non-structural objects that make the project feel lived in.

### **Grade 5: Blocked out Environments**

**5%**

Floors, ceilings, rough object placement, and stand in objects built and unwrapped.

<b>Grade 6: Final Low Poly Environment</b>	<b>20%</b>
Completed low poly environment	
<b>Grade 7: High-Poly Assets</b>	<b>5%</b>
Upgrade to higher resolution your non-structural objects that make the project feel lived in.	
<b>Grade 8: 1/3 Upgraded Environment</b>	<b>5%</b>
Upgrade to higher resolution	
<b>Grade 9: 2/3 Upgraded Environment</b>	<b>5%</b>
Upgrade to higher resolution	
<b>Grade 10: 3/3 Upgraded Environment</b>	<b>5%</b>
Upgrade to higher resolution	
<b>Grade 11: Final</b>	<b>20%</b>
<b>Grade 12: Critiques</b>	
Each student will be expected to give and receive an oral critique in every one of the 5 Critique Sessions on the schedule. This will be a large part of the grade for the class. (If you are going to miss a class, don't do it during critique week, as I consider that rude and unprofessional and will grade accordingly)	
	<b>15%</b>

### **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 Computer Animation for Interactive Games**  
(Subject to Change)

Jan 16 Wed	<b>Demo</b> - Class Overview and What's expected. Brainstorming, Reference Gathering, and Style Sheet
Jan 21 Mon	Holiday
Jan 23 Wed	<b>Demo</b> - Background Story, 20 Images of Structural, 20 Images of Secondary Assets
Jan 28 Mon	Lab - Style Sheet, 20 Images of Structural, 20 Images of Secondary Assets Due
Jan 30 Wed	<b>Demo</b> - Environmental Sketching and Color Composition
Feb 4 Mon	Lab - Pitch Environment Idea, Background Story
Feb 6 Wed	<b>Demo</b> - Intro 3DS Max
Feb 11 Mon	Lab - Environmental b/w Composition Due
Feb 13 Wed	<b>Demo</b> - Intermediate 3DS Max
Feb 18 Mon	Lab - Environmental Color Composition Due
Feb 20 Wed	<b>Demo</b> - Low Poly Modeling and Techniques for Games
Feb 25 Mon	Lab - 5 Low Poly Environment Assets Due
Mar 27 Wed	<b>Demo</b> - Blocking out environments
Mar 3 Mon	<b>Demo</b> - Rough painting over environments in Photoshop
Mar 5 Wed	Lab - Blocked Out Environments Due Class Critique
Mar 10 Mon	Holiday
Mar 12 Wed	Holiday
Mar 17 Mon	<b>Demo</b> - Mapping 1 Where to Start
Mar 19 Wed	<b>Demo</b> - Mapping 2 Custom Painting and Tiling
Mar 24 Mon	<b>Demo</b> - Vertex Lighting, Techniques in Unwrapping
Mar 26 Wed	Lab - Environment Unwrapped
Mar 31 Mon	<b>Demo</b> - Faking lighting
Apr 2 Wed	<b>Final Low Poly Environment Due</b> / Class Critique
Apr 7 Mon	<b>Demo</b> - High Poly Modeling and Techniques for Games
Apr 9 Wed	Lab - High Poly Upgraded Assets Due
Apr 14 Mon	<b>Demo</b> -Displacement Mapping, Normal Mapping, Baking in Lights
Apr 16 Wed	Lab - 1/3 Environment Upgrade Due / Class Critique
Apr 21 Mon	<b>Demo</b> -Advanced Lighting and HDRI Lighting
Apr 23 Wed	Lab
Apr 28 Mon	<b>Demo</b> - Free or Inexpensive Game Engines to Work In
Apr 30 Wed	Lab - 2/3 Environment Upgrade Due/ Class Critique
May 5 Mon	Environment Due / Class Critique
May 7 Wed	Class Critique
May 12 Mon	Final Environment Due

