

DePaul
SCA

3D Design and Modeling

Spring 2015 | T/TH 10:10-11:40am | CDM 722

Instructor: Josh Jones

Office: CST 517

Email: jjones@cim.depaul.edu (best way to reach me)

Phone: (312)362-5876

Office hours :

Tu: 11:40-12:00pm, 1:00-2:00pm, 4:40-5:00pm

Th: 1:00-2:00pm, 4:40-5:00pm

ANI 230

Course Description

Students will use computer modeling to explore the principles of 3-dimensional design. Projects involving object, character and architectural modeling will emphasize the aesthetic concepts of spatial proportion (scale, angle and position), silhouette, negative space, rhythm, balance, light/shadow and texture. Students will emerge with the ability to create well designed 3D models, and be familiar with the basics of polygonal modeling, texturing, lighting and rendering for animation, computer games and cinema. PREREQUISITE(S): None

Course Objectives

After completing this course, students will have:

1. Gained basic concepts and understanding of tools related to 3D production.
2. Become comfortable with basics of modeling, lighting, texturing and rendering.
3. Understand the fundamentals of strong 3D design.

Texts and Materials

REQUIRED TEXTS:

None

RECOMMENDED TEXTS:

Introducing Maya 2015 by Dariush Derakhshani Publisher: Sybex

The Art of 3D Computer Animation and Effects, Fourth Edition
(Paperback) Isaac Kerlow, Publisher: John Wiley & Sons; 2009

Reference Websites

www.autodesk.com

www.learning-maya.com

www.creativecrash.com

www.awn.com

www.animationlodge.blogspot.com

Attendance

Students are expected to attend every class. We cover an enormous amount of material in every class, and missing even one can be a huge setback.

Three absences will result in the lowering of your final grade one full letter. Any student missing 4 classes will be given a grade of "F" for the semester.

The student is responsible for any lectures or assignments missed. If an assignment is due a week that you are absent, it is your responsibility to

make sure it still arrives on time. A good portion of our class time will be spent doing hands on tutorials, screening films, and critiquing work. Lecture notes will not make up for these missed learning experiences.

You may not miss the final class critique. Doing so will equal an automatic two letter grade reduction of your final grade. If for some reason you cannot make this class contact your instructor BEFORE the class that you must miss. Excuses given after the fact will not be accepted.

No incompletes will be given without documented proof of circumstances beyond your control.

Participation One of the best ways to learn in a classroom environment is through *active* participation in discussions and critiques. In general, we will be following a pattern of creating animation and then discussing it in critique in the following week. When I open up the floor for you to speak, please make the effort to voice your honest and constructive opinion. You are likely to find that this will greatly improve your overall learning process.

Class Work ASSIGNMENTS

- Must be handed in on time. “On time” means submitted through D2L one hour BEFORE class on the day the assignment is due. Students who use class time to finish assignments the day they are due will forfeit the right to hand in that assignment.
- Late work:
 - Late work will not be accepted unless approved of PRIOR to the class in which it is due or accompanied by a valid medical excuse.
 - You are allotted one “freebie” per term that allows you to turn in ONE assignment late for full credit (up until the 10th week of the term). You only get one of these per term. All other late assignments are forfeited.
- Written Assignments: Must be typed.
- Digital Assignments: Must be submitted in the following format (please note upper and lower case usage)
 - lastnameFirstname_projectname.extension
 - example: jonesJosh_projectOne.mb

* Special Accommodations: If you have any special considerations please see me.

* BACK UP YOUR WORK: Failure of computer software and or hardware will not be accepted as an extenuating circumstance for late projects or incomplete grades so back up your work on a regular basis.

Critiques In most cases (I’ll let you know the exceptions) I request that you use QuickTime format unless discussed with me previously. AVI’s are difficult to watch frame by frame (something we will be doing a lot of). Handing in something unfinished is always better than nothing at all. Due to the large size of our class, and the limited class time, not everyone’s work will get a full review during class. If you’d like more feedback, arrange to discuss your work with me during my office hours. We will view and discuss everyone’s final project during the last class.

Grading Assignments 100% of grade

	A = 100-93	A- = 92-90	
B+ = 89-88	B = 87-83	B- = 82-80	
C+ = 79-78	C = 77-73	C- = 72-70	
D+ = 69-68	D = 67-63	D- = 62-60	F = 59-0

Your grade will depend on the following criteria:

- **Meeting Project Deadlines:** It is vital to have your work available for critique. Work unavailable for critique will be considered late and will not be accepted unless you are using your one “freebie.”
- Creativity and personal input into execution of project
- Coming prepared to class, including assigned reading and assignments
- Showing in-progress work, which can benefit from suggestions, rather than presenting entirely new work at critiques
- Effective visually aesthetic solutions to all problems assigned
- Taking initiative to work outside of class and research
- Hard work and sweat
- Participation in critiques and discussions

Headphones Whether working with sound in your project, or simply listening to music while working, you need to be considerate of others and wear headphones. Be aware that if the volume is high enough, others can still hear what you’re listening to despite the headphones. Inconsiderate behavior will result in a lowered grade.

Academic Integrity Work done for this course must adhere to the DePaul University Academic Integrity Policy, which you can review in the *Student Handbook* or by visiting <http://studentaffairs.depaul.edu/homehandbook.html>.

Plagiarism The university and school policy on plagiarism can be summarized as follows: Students in this course, as well as all other courses in which independent research or writing play a vital part in the course requirements, should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic F in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work a report, examination paper, computer file, lab report, or other assignment which has been prepared by someone else. If you have any questions or doubts about what plagiarism entails or how to properly acknowledge source materials be sure to consult the instructor.

Materials and Supplies All assignments in this class will be transmitted digitally online through D2L unless otherwise noted.

Any assignment handed in late or when not present in class may be put on a CDROM, DVD, or flash drive and delivered to the 4th floor desk of CDM to be put in my mailbox.

All CDROM's and DVD's must be labeled clearly with the following information:

- Your name
- The name of the assignment
- The class number and name you are submitting the assignment for
- The term (ex. Fall 2014)

Schedule

This schedule is subject to change throughout the semester, and will be adapted to fit the needs of the students.

Unless otherwise noted, all assignments will be submitted online 1 hour prior to class. Assignments may be submitted earlier.

Lecture

Assignment

Week 1 March 31 April 2	Intro to Maya Abstraction and Silhouette Basic Principles of 3D Design Abstracting Animals In Class Exercise: Simple Fan Bring a shoe to class with you next week!	Practice making the fan. Make your goal to be able to create the fan from scratch in under 5 minutes. Assignment: Abstracted Animals
Week 2 April 7, 9	Abstracted Objects Simple Polygon Modeling Low Poly Shoe <u>Don't forget to bring your shoe to class!</u>	Assignment 1: Abstracted Objects Assignment 2: Low Poly Shoe
Week 3 April 14, 16	Low Poly Shoe Revision Basic Color Normals Introduction to Hypershade	Assignment 1: Final Shoe Assignment 2 : Everyday Object
Week 4 April 21, 23	Critique Everyday Objects Defining Character Proportions Deformers	Assignment: Sturdy/Elegant Research Assignment: Portman and the Hulk
Week 5 April 28, 30	Critique Portman/Hulk Intro to Architecture Repetition, Variety, Rhythm Introduction to texturing	Assignment 1:: Architectural Style Research Assignment 2: Interior Space
Week 6 May 5, 7	Creating texture tiles Modular Construction	Assignment: Office of the Overlord
Week 7 May 12, 14	Introduction to lighting Animating and Rendering	Assignment: Light Office of the Overlord

Week 8 May 19, 21	Character Design and Organic Modeling Chimera Rough	Assignment : Chimera Research and Mockup
Week 9 May 26, 28	Refining a character model Redirecting Edge Loops Transitions in modeling	Assignment: Chimera Single Mesh Model
Week 10 June 2, 4	UV Unwrapping Transitions in texturing Animating a Turnaround	Assignment: Final Chimera turn-arounds and renders with textures
FINAL June 9	Final Critique! Tuesday June 9th from 8:45 – 11:00 AM ATTENDANCE IS MANDATORY	