

The Art Institute of California - Sunnyvale
Course Syllabus

Course Number: GA2211

Course Title: Hard Surface and Organic Modeling

Class Meetings: Monday, 6-10

Session/Year: Winter 2013

Instructor Name: Monica Cappiello

Email Address: mcappiello@aia.edu

Instructor Availability Outside of Class: Monday/Thursday, 5-6 pm or e-mail to set up appointment

Main Campus Phone: (408) 962-6400

Hard Surface and Organic Modeling

Course Description:

This course covers advanced modeling techniques used for building organic and hard surface objects and environments.

Course Length: 11 Weeks

Contact Hours: 44 Hours

Lecture: 2 Hours per week

Lab: 2 Hours per week

Credit Values: 3 Quarter Credits

QUARTER CREDIT HOUR DEFINITION:

A quarter credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

- (1) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for 10-12 weeks, or the equivalent amount of work over a different amount of time; or
- (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practical, studio work, and other academic work leading to the award of credit hours.

Course Competencies:

Upon successful completion of this course, the student should be able to:

- Apply principles of lighting in computer animation.
- Create a seamless model.
- Create objects that are relative in scale to their environment.
 - Utilize architectural drawings as templates for creating interior scenes.
 - Create environments making sure that the relative scale and perspective of the foreground geometry matches the surround scene.
- Produce complex three dimensional objects using polygonal and spline based techniques.
 - Use a Wide Variety of Modeling Tools

- Learn How to Master New Modeling Tools Quickly
- Understand and Use Industry Standard Terms To Describe Geometry & Scenes
- Demonstrate Modeling Tools & Techniques To Others
- Present Work to Other Designers & Potential Employers
- Create Scenes to Scale
- Model Exteriors from Elevations
- Model Interiors from Floor Plans
- Model Furniture & Other Props Quickly
- Create Digital Terrains & Environments
- Create Simple Characters
- Place Cameras & Lights in a Scene
- Render Images & Animations

Course Prerequisite(s): MA1134 Principles of 3D Modeling

Method of Instruction:

This course is delivered as a professional workshop composed of lectures, in-class demonstrations, in-class exercises, individual in-class projects, one-on-one support from the instructor as required, graded homework exercises & quizzes that review key concepts.

Text(s): No textbook required

*Instructor may recommend books, websites, and videotapes to use for study and enhancement

Materials and Supplies: Notebook, blank CDR's for project submission, archive and storage

Estimated Homework Hours: 4-6+ hours/week depending on your skill

DIGITAL BOOKSHELF & COURSE EBOOK:

If your class uses an electronic book “ebook”, your required textbook for this course is delivered via electronic format. You do not need to purchase a hardcopy textbook. You will be able to access your eBook via eCompanion (<http://myaicampus.com>) beginning no later than the first day of class. Once you have accessed your eBook via eCompanion, you can then also choose to download the eBook to a personal computer using the Digital Bookshelf software (<http://vitalsource.com/downloads>). Please refer to the Ai Digital Bookshelf Student User Guide, available in eCompanion, for specific instructions.

To start using your eBook, enter the eCompanion site for this class. Click on the “Digital Textbook” link on the left- side navigation bar. Then, click on the link for the book.

For support using the Digital Bookshelf, contact Campus Support at 1- 866- 642- 2771 or campus_support@aii.edu. This support group is available SEVEN DAYS A WEEK from 7:00 AM – MIDNIGHT Eastern Time.

STUDENT EVALUATION/GRADING POLICIES: (Version 12 Part B start)

- Class time will be spent in a productive manner.
- Grading will be done on a point system.

- Points for individual activities will be announced.
- All work must be received by the set deadlines.
- Projects turned in on time may be redone with instructor approval.
- Late work receives a grade of zero.
- Absolutely no work will be accepted after the final class meets week 11.

GRADING SCALE:

All assignments will have clear criteria and objectives to meet. All students shall be treated equitably. It will be that student’s right to know his/her grade at any reasonable point that information is requested by that student. The criteria for determining a student’s grade shall be as follows on a percentage of the total points:

A	100 – 93
A-	92 – 90
B+	89 – 87
B	86 – 83
B-	82 – 80
C+	79 – 77
C	76 – 73
C-	72 – 70
D+	69 – 67
D	66 – 65
F	64 or below

ATTENDANCE POLICY:

Successful completion of a course is dependent upon regular attendance in the classroom. Critical information is delivered through lecture, critique and student participation. Students are expected to be on time for each class and to stay for the entire class period. Attendance is mandatory.

- If a student accumulates a total of two (2) full class absences during an academic quarter, his or her grade may be adversely affected.
- If a student accumulates a total of three (3) full class absences during an academic quarter, he or she may receive an F grade for the course.

CLASSROOM POLICIES:

- No food allowed in class or lab at any time. Drinks in closable bottles allowed in classroom.
- Edible items brought to class or lab must be thrown out.
- If student elects to eat/drink outside class or lab door, missed time is recorded as absent.
- Attendance is taken hourly. Tardiness or absence is recorded in 15-minute increments.
- Break times are scheduled by the instructor at appropriate intervals.
- No private software is to be brought to lab or loaded onto school computers.
- No software games are allowed in lab unless if this is part of the course curriculum.
- Headphones are allowed if listening to music during lab. No headphones are allowed in lecture.
- Classroom furniture, computers, and any equipment used in class must be left in its “original condition or better” by students and faculty after class is dismissed. Each faculty member is responsible and in charge of making sure their classroom return to its “original condition or better”.
- Any student who has special needs that may affect his or her performance in this class is asked to identify his/her needs to the instructor in private by the end of the first day of class. Any resulting

class performance problems that may arise for those who do not identify their needs will not receive any special grading considerations.

DISABILITY POLICY STATEMENT:

It is our policy not to discriminate against qualified students with documented disabilities in its educational programs, activities, or services. If you have a disability-related need for adjustments or other accommodations in this class, contact the Director of Student Services. If you don't know the Director of Student Services, please ask your Academic Director for the appropriate contact person.

ACADEMIC HONESTY POLICY:

Students are expected to maintain the highest standards of academic honesty while pursuing their studies at The Art Institutes. Academic dishonesty includes but is not limited to: Plagiarism and cheating; misuses of academic resources or facilities; and misuse of computer software, data, equipment or networks.

PLAGIARISM

Plagiarism is the use (copying) of another person's ideas, words, visual images or audio samples, presented in a manner that makes the work appear to be the student's original creation. All work that is not the student's original creation, or any idea of fact that is not "common knowledge," must be documented properly to avoid even accidental infractions of the conduct code.

CHEATING

Cheating is to gain unfair advantage on a grade by deception, fraud, or breaking the rules set forth by the instructor of the class. Cheating may include but is not limited to: copying the work of others; using notes or other materials when unauthorized; communicating to others during an exam; and any other unfair advantage as determined by the instructor. Additional information is located in the student handbook.

Student work that appears to violate AiCA-SUN's standards of academic honesty will be reviewed by the Committee on Academic Honesty. If the work is judged to have violated standards of academic honesty, appropriate sanctions will be given. Sanctions include but are not limited to course failure and academic termination.

STUDENT ASSISTANCE PROGRAM:

The Talk One2One is a pre-paid service, provided through The Art Institute of California – Sunnyvale, that offers a menu of services and support accessible 24/7 to assist the student in attaining balance and academic success, including: counseling, budget and debt assistance, information and resource referrals, consultations, and new parent coaching. If you are in need of services, contact Talk One2One at 888-617-3362.

Excuses I will not accept in this class:

"I lost my data"

As a rule, you must always *always* make redundant backups of your work. If your work exists only on one CD back-up or one hard drive, you are walking on very thin ice. In the industry, backups are made of work on a daily basis in multiple archives. Lost data means lost jobs.

“I forget to bring my work with me”

This means one of two things. Either you did actually forget your work, or in fact did not do your work and want to carry on the illusion to me that you did. Either option is not acceptable. The class meetings are not a surprise to you and it should be self-evident that bringing your work to class critical.

“I couldn’t work on my project because my machine at home is broken”

We have a computer lab at school. Although working at home is convenient, it should not impede your work.

“I didn’t have enough time to complete my work”

If you had time to check facebook/e-mail more than once a day, you had more time to spend on your work. I will work with you to not only learn software techniques, but also project management skills that will help maximize your time spent working. In the industry, animators are required to spend many long hours working. In school, now is the time to start building the discipline required to manage such working hours.

Course Outline

- Week 1:** **Lecture:** Overview of User Interface Refresher - Displaying Objects/Rendering Images. Setting Up Scene Scale. Modeling with 2D Splines & Extrude. Creating Walls from Elevations. Positioning Objects with Precision.
 Lab: Hands on practice based on day’s lecture.
 Homework: Create Famous Architectural Building
- Week 2:** **Lecture:** Modifying a Lofted Object / Scale Deformation Options. Bend, Taper, Bevel, Smooth. Moving Geometry From Scene to Scene.
 Lab: Hands on practice based on day’s lecture.
 Homework: Continue Famous Architectural Building
- Week 3:** **Lecture:** Modeling a Simple Character. Extruding, Moving and Scaling Faces, Vertices. Working with Layers, Arrays, Instances, References & Groups. Modeling with Boolean.
 Lab: Hands on practice based on day’s lecture.
 Homework: Create Simple Character
- Week 4:** **Lecture:** Studio rendering environment, layers, occlusion
 Lab: Hands on practice based on day’s lecture.
 Homework: Continue Simple Character
- Week 5:** **Lecture:** Working with Layers, instances, References & Groups. Modeling with Boolean Operations.
 Lab: Hands on practice based on day’s lecture.
 Homework: Create low and high poly Vehicle

- Week 6:** **Lecture:** Cutting Faces & Slices. Working with Normals, building tire treads
 Lab: Hands on practice based on day's lecture.
 Homework: Continue Vehicle
- Week 7:** **Lecture:** LOD groups, duplicate special, baking detail
 Lab: Hands on practice based on day's lecture.
 Homework: Continue Vehicle
- Week 8:** **Lecture:** Creating Window Frames & Moldings, Positioning Objects with Precision.
 Creating & Applying Simple Materials like Brick & Glass.
 Lab: Hands on practice based on day's lecture.
 Homework: Create Interior from Floor Plan, include furniture/props
- Week 9:** **Lecture:** Creating believable clutter, alpha mapping
 Lab: Hands on practice based on day's lecture.
 Homework: Continue Interior
- Week 10:** **Lecture:** Faking Radiosity for daytime lightings, correct shadows.
 Lab: Continue to work on final project.
 Homework: Continue Interior. Create DVD Demo Reel with wireframe turntable of all models
- Week 11:** **Lecture:** Final Project - DVD Demo Reel with wireframe turntable of all models