

COMPUTER MODELING AND SHADING

Cognitive Science 232
ASH 126, TTH 2:00 – 3:20
Spring 2001

Instructor: Chris Perry

Office: ASH 215

Office Hours: Wednesday 2:30-4:30, Thursday 11:00-12:00

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Link to class web page can be found at: <http://helios.hampshire.edu/~chpCCS> (case sensitive!)

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Course Catalog Description

Most of the visual complexity that is common to computer generated films comes from the processes of modeling and shading. Modeling, briefly, is the construction of mathematical curves and surfaces that when viewed through a virtual camera behave as real-world objects do in front of a real camera. Shading is the process of assigning specific surface detail to these models: a modeled table, for instance, can be “shaded” to look as if it is made of wood or of metal.

Approximately one-half of class time will be spent on the theoretical foundations of modeling and shading. This will include material on polygonal, parametric, and subdivision surface representations, reflectance models, uv mappings, and antialiasing. The second half will be spent putting these theories into practice through project work with off-the-shelf software. Potential students need to have taken calculus and must have computer programming experience.

Text

There is a reading packet for the class that you must purchase from the instructor once you are certain of your enrollment in the class (see below).

Enrollment

I will post a final list of the students enrolled in the class on my door (ASH 215) and on the class web page by noon on Monday, February 5. If you are on this list, please come to the second class on Tuesday the 6th with a check or cash for the reading packet. If you are NOT on this list, there was not room for you in the class.

Students will be evaluated on the following criteria:

Projects. Two major projects are due in the second half of the semester. I will impose general restrictions to keep the projects contained, but the specifics of each project will be up to the student to propose. The final project in particular needs to be cleared with me (i.e., I don't want to hear about it for the first time on the day it is handed in). The idea behind this is that I will help the student shape their project into something appropriate for the topic being covered, including making sure a project is neither too easy nor too hard. I will evaluate the projects that are handed in on time and that meet the requirements of the assignment. If a student hands in a project late, they should not expect an evaluation of it. The final project will be discussed in the student's written evaluation at the end of the semester.

If a student ever falls two handed-in assignments behind (or turns the final project in late), they will not receive an evaluation for the course.

Assignments. Beyond the two major projects, there will be smaller, project-supporting assignments that are due in class. These won't necessarily receive written evaluations but will be taken into account in the student's final narrative evaluation. Any of these that are to be handed-in will count toward the "falling two assignments behind" rule, given above.

Regular attendance. The readings do not contain all of the material required for the course and therefore should not be considered a substitute for attending class. Roll will be taken at every class. Students that miss class are responsible for the material they missed and should follow-up with me or the other students to catch up. **If a student has more than two unexcused absences they will not receive an evaluation for the course. Tardiness of over 10 minutes will be considered an absence.**

Reading. There are regular reading assignments. I reserve the right to give surprise reading quizzes this semester and a student's performance on these will be reflected in their evaluation.

Participation. Students will be evaluated on the amount and quality of their participation in class. One form of this is speaking during class discussions and lectures, another is presenting in-progress project work to the class.

Other. I reserve the right to assign something that I haven't included in this syllabus. To be fair, I intend to make it clear when these things come up exactly how much weight they will be given in the evaluations.