

# CS 395/495

## Advanced Computer Graphics

### Winter (Jan-Mar) 2002

#### General Info

**Instructor:** Dr. Benjamin A. Watson

*Office:* 336, 1890 Maple

*Phone:* 491 3710

*Email:* watson@cs.northwestern.edu

*Office hours:* by appointment

**Instructor:** Jack Tumblin

*Office:* 350, 1890 Maple

*Phone:* 467 2129

*Email:* jet@cs.northwestern.edu,

*Office hours:* by appointment

**Prerequisites:** CS 351 or equivalent

**Final exam:** none

**Website:** [www.cs.nwu.edu/~watsonb/school/teaching/395.2/](http://www.cs.nwu.edu/~watsonb/school/teaching/395.2/)

#### Textbooks and Readings:

*Required:*

A. Watt, *3D Computer Graphics*, 3rd edition, Addison-Wesley.

The textbook forms a great introduction to many of the topic areas. In some cases, it goes into too much detail, but then that's textbooks.

We will also be assigning you a few papers to read each week which we expect you to discuss in class. It isn't necessary to understand everything, but it is necessary for you to know what it is you don't understand. That knowledge should give rise to questions in class.

#### Lectures

Every week will begin with a 45 minute introduction to a research area by one of the professors. This will be followed by three presentations of in-depth topics within that area by students, with accompanying discussion.

#### Course Description

CS 395 is an advanced seminar course in computer graphics. It serves as an introduction to advanced topics and research in the field. There is far too much to graphics today to cover everything in depth, instead the course strives to cover most things in breadth, and a few in depth.

## Coursework

Participating in reading and discussions is extremely important in this course. We may give pop quizzes to check whether or not you have truly read the week's papers. These quizzes will be trivial for you if you have read the paper.

In addition to participating in discussions, you will be expected to participate in two ways. First, you will present one in-depth research topic to the instructor and students. You will research relevant papers (with the help of the profs), make a Powerpoint presentation, and present the results to the class. We will post your presentation afterwards onto the class website.

Second, you will do a project. For most of you, this will be a more in depth survey of the research you presented to the class. This survey will take the form of a paper you turn in at the end of the quarter. Graduates will make two such surveys, one in the area they present, one in another area.

If you are particularly enthusiastic and the scope of the class permits, you may substitute a coding project for your paper survey(s). This may be performed individually or in groups. This must be discussed beforehand with a professor who will decide whether or not such a project can be completed within the quarter. We will not accept projects that have not been discussed beforehand with the professors. The discussion will culminate in a written project proposal which will assign grading weight to each project component.

## Course Evaluation

The proportion of the final mark associated with the different components of the course is as follows:

Participation	15%
Presentation	35%
Project	50% (grads: 25%/25%)

## Website and Newsgroup

Prof and student presentations will be posted to the website. Readings for all will also be found there.