Welcome to CS224!

CS224 is a graduate-level computer graphics course. The primary goal of the course is to expose students to a wide range of subjects in computer graphics, taking a hands-on approach to each one.

Many students take CS224 as the second half of a two-course sequence starting with CS123. The course will move quickly and cover many topics. A strong emphasis will be placed on programming projects and class participation. Students will form groups and complete a final project in a computer graphics topic of their choosing.

Class: Tues/Thur 10:30am-11:50pm

The course website can be found at [http://cs.brown.edu/courses/csci2240/](http://cs.brown.edu/courses/csci2240/)

Prerequisites

(CS123 or equivalent graphics background) and (CS32 or equivalent software engineering experience). Some mathematical maturity (calculus, linear algebra, probability) is expected.

The Staff

Prof. John “Spike” Hughes (jfh@ ...) is teaching the course. The two TAs are:

- Head TA Eric Jang (evjang@ ...)
- TA Scott Houde (shoude@ ...)

See the course website for office/TA hours.

Expectations and Assignments

As mentioned, CS224 is a graduate-level course, and we have high expectations of the students. Students are expected to be mature and professional about their work habits and should expect to spend 15–20 hours per week on the course. The programs test more complex concepts than those in CS123, and usually require significant thought before any code is written. In several cases, the time spent understanding the problem and devising a solution will constitute a majority of the time devoted to the assignment.
CS224 will require the completion of a few written homeworks, 4 rendering assignments (1 week each), 1 procedural generation assignment, 1 interaction assignment, and one large (5 week) project, typically a two or three-member team effort. Each student is also expected to present a research paper in class. See the calendar for due dates.

The final project is perhaps the best-known and most rewarding assignment in CS224. It is important that students keep the final projects in mind throughout the entire semester. Groups that form and research ideas for topics early will have more time to realize their goals than a group that devises their topic on the night before the project proposal is due.

Your final grade breakdown is as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>% of Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming Assignments</td>
<td>50%</td>
</tr>
<tr>
<td>Homeworks</td>
<td>10%</td>
</tr>
<tr>
<td>Class Presentations</td>
<td>5%</td>
</tr>
<tr>
<td>Final Project</td>
<td>35%</td>
</tr>
</tbody>
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The Final Project Demo Day is scheduled be Monday, May 4th at 4 pm. Attendance is mandatory. If you believe that you cannot attend, contact one of the TAs immediately.

Collaboration Policy

See the collaboration policy on the course website.

Late Policies

Handing in late will cost 10% for every 24 hours past the due date. The penalties come in units of 10%, so if a submission is 10 minutes late, it loses 10%. This means that a B project becomes a C project. You cannot retroactively use a late day after you have handed in an assignment.

Everyone is allowed three late days for programming assignments (this does NOT mean 72 “late hours”). If you wish to use late days on an assignment, state how many late days you wish to use in the README of your late handin. For example, if you hand in three days late and want to use only two late days, your final grade will receive a 10% penalty.

All written homeworks are due at the beginning of class. You will not receive credit for written homework handed in late. Final projects may NOT be handed in late.

Community Spirit Credit

In keeping with the goal of avoiding needless work, we will have a policy in which community service of particular kinds is rewarded. If, for example, you start working on an assignment and you find a bug in the support code (we hope this won’t happen, of course!), you can tell the TAs.
Not only will they fix the bug, but they’ll reward you with some number of points for community service. If you find a bug and fix it, you get more points.

There are other kinds of community service as well: in some projects, you’ll work with various sorts of data. If you created a viewer for datasets to help with debugging, and posted news about it (or gave your viewer to a TA to put in the course bin directory, /course/cs224/bin), you’d get points as well. If you have an improved Makefile for some project, that’s a contribution as well.

Of course, it’s not counted as community spirit if you post the solutions for an assignment to the course newsgroup. In general you should present community spirit contributions to a TA before posting to the newsgroup.

The Newsgroup

We hope to use Google Groups (http://groups.google.com/group/cs224-2014) to answer the majority of your questions. If you have a question whose answer that does not give away the key points of the assignment, please post it to the newsgroup. If in doubt, mail or ask a TA.

Example of an OK Newsgroup Question: “In my ray tracing I keep getting little black dots in my image. I’ve tried small test cases and know that my reflection model works. Any ideas?”

Answer: “Check your epsilon values.” (Note that the answer did not say exactly what was wrong)

Bad Newsgroup Question: “I can’t get specular highlighting to work. What’s wrong?”

This is a bad question because we want students to be able to realize mistakes in their code and/or conceptual understanding of the assignment on their own. Asking people to point out where your code is wrong is a no-no.

Bad Newsgroup question: “What’s specular highlighting?”

This is a bad question because there are plenty of resources online to explain this clarification. Make sure to read the collaboration policy before you consult online references.

Class Information

Almost all course information will be available on the course webpage. If there is information relevant to the class that does not yet appear on the web page, feel free to talk to a TA, who will consider placing it there.

You are responsible for knowing all the information in all articles posted in the newsgroup — read it frequently! (You’re also responsible for all in-class announcements and material. “I missed that class” is not an excuse.)

We reserve the right to update any course materials during the semester.