



Cutler, Barbara  
CSCI-4530/6530  
Advanced Computer Graphics  
Tuesday/Friday  
Rensselaer Polytechnic Institute  
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Local Code: 2121

**Other comments:**

- Yay!!
- I can't stress this enough; this course is a lot of work. In my own opinion, more work than it needs to be.
- N/A
- One of my favorite classes at RPI so far. Would like a little bit more of an intro to OpenGL as final projects tend to need it a little more than assignments, or maybe work it into a small piece of each assignment.
- This was one of the hardest courses I've taken. It's made me decide I don't want to pursue this line of work, but nonetheless I think it's an excellent course, and the instructor puts in a lot of time into helping students. If it had a different instructor I probably would have dropped the course.
- LOVE THE CLASS DON'T CHANGE A THING

**What advice would you give a friend who is considering taking this class? What are the necessary pre-requisites, co-requisites, or prior experience? What should you do to succeed?**

- They need a really solid programming background. Knowing some linear algebra (slightly more than math 2010) would really help.
- make sure you have A LOT of time to devote to this class. ~20 hrs a week if you really want to dive into the homeworks. Prior experience with opengl is a huge benefit. You could pick it up as you go, but that would require spending even more time on this already demanding course.
- I would tell someone, make sure all your other courses are incredible easy, or don't take up much or any time. Most of your time will go into this course.
- Knowledge of real-life properties of light is helpful.
- Really the only prior experience you need to succeed here is setting up and working with an OpenGL environment. Even if you have no real OpenGL programming experience, the course is very easy to follow.
- DON'T take this course in a fully-loaded semester. It is a ton of work.
- To succeed, start homeworks immediately and work on them consistently. They're generally pretty tricky and a giant time sink. Pre-reqs I'd say are Data Structures/CS2 really. If you can maneuver yourself through C++ pointers and the like you have the tools to succeed.
- this shit ain't for bitches. if you're gonna do this, you gotta go hardcore.



**What advice would you give a friend who is considering taking this class? What are the necessary pre-requisites, co-requisites, or prior experience? What should you do to succeed?**

- the ECSE computer graphics course is really helpful
- Prior OpenGL experience and an extensive coding background
- Make sure you start the work early.
- Good understanding of C++, a whole lot of free time to complete the homework

**What do you like best about the class? What do you like least about the class?**

- The coursework is challenging and fun. Unfortunately this caused me to put an obscene amount of time into this class and much less time into my other classes. I can't really think of anything I dislike about this class.
- The homeworks were very rewarding when they worked, and Barb keeps the lectures interesting. I would have liked to skip some of the research papers we had to read, because they weren't all that interesting to me.
- If you put in enough work, the results you get are really satisfying. After all, this is computer graphics. But on the other hand, and I've said this already, this class is \*hard\*.
- I like the satisfaction of seeing the scene rendered properly.
- Despite being a lot of work, the class is relatively low-stress. The availability of extra credit helps this significantly. I would have appreciated some more actual OpenGL programming instead of algorithm implementation. This is minor, but was the point I liked least about the course.
- The amount of work and material covered drives you into the ground, but you come out of it knowing the material cold. It's definitely worth it.
- I liked the homeworks honestly, they were a lot of work and pretty difficult but I felt rewarded for completing them (or almost completing them). I didn't really enjoy reading a fair number of the papers in the class. The ones that were really math intensive were necessary, but distracting and kind of hard to comprehend. Generally papers are for me and finding practical examples or small contrived examples help me a great deal.
- I CAN RENDER CRAZY SHIT NOW! FLUIDS, CLOTH, RAY TRACED IMAGES, SHADOWS, MIRRORS, HOLY MOLY
- I liked learning about the algorithms and data structures, but I really didn't like the coding homeworks
- Way too intensive programming projects.
- We learned some pretty cool stuff.
- Best: Learning and implementing different techniques in graphics Worst: Reading SIGGRAPH papers twice a week (many are very old and very dry)

**Comment on the balance of programming, theory, concepts, and math on the homework and exams:**



**Comment on the balance of programming, theory, concepts, and math on the homework and exams:**

- I felt like there could be more math. The only tough math was in the fluid simulation, but it was basically solved and laid out for us. The theory is covered well in class.
- I thought it was a good balance, there was some advanced math behind some of the things we did, but Barb most of that for us. The math we had to be aware of and do was relatively simple.
- The balance of actual concepts seemed OK, except for the fact that the homeworks took up more time than all my other classes combined.
- There is not a lot of theory, but there are many concepts. Math is the base of the homeworks, but programming takes up most of the time, due to debugging.
- The balance is perfect.
- Well-balanced. Some of the papers we read were a bit math-heavy and fell into the "magic" category, but other students were able to explain them well enough that looking over the LMS discussions cleared up most things.
- Since I've only had one exam... true and false is evil with the current point balance on it. I know it's so the exams aren't so easy but true and false is so... wishy washy. Programming is heavy, and I love it few classes at RPI give you so much programming time. Theory/concepts like to sit in lecture which is fine, you pull them out when you're working on an assignment. Math is hit and miss, some stuff is easy, some stuff is okay and the rendering equation is evil.
- not very programming heavy. Most of the OpenGL stuff is hidden from the students, it's more about the high level concepts.
- I didn't like having to jump through hoops to get the base homework code to compile on my system
- It was a pretty good balance.
- Extremely heavy on programming for the homework and concepts learned for the exams.

**Comment on the lecture format and instructor's teaching style:**

- Barb is an interesting lecturer, I look forward to going to class.
- Awesome. There were a few key algorithms that she presented in class that were vital to the homework, but were still a little too vague to get the proper implementation without consulting multiple other sources. The shadow volumes using the stencil buffer comes to mind, as does form factor calculation in radiosity.
- The lectures were interesting and informative enough. I'm a good listener, so listening to lectures is rarely an issue for me.
- Informal lectures are awesome. The emphasis on assignments and projects is excellent.
- Lectures are thorough and well-explained. Posting the slides online is helpful for following along, getting an idea of what's coming up, and reviewing material for homeworks and quizzes.



**Comment on the lecture format and instructor's teaching style:**

- Lectures are fun, sometimes dry but that's just the material. When homeworks are given, how about showing us what your final solution actually looks like so we know when we're making progress or not.
- it's fine.
- good
- The format and style were nice.
- Lecture from Powerpoint slides, sometimes explanations are not clear but in general OK.

**Comments: Use the space provided in the text area below for your comments.**

- One of the best professors I've had at RPI
- This was by far one of my favorite classes I have taken at RPI. I don't really have anything to recommend—thank you for the awesome semester!
- Hm. No more comments.
- Professor Cutler is a BOSS.
- This is an intensive course that, if completed successfully, will leave you with a good understanding of implementing graphics concepts.