CSCI 440: Capstone in Computer Science

Professor
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Thompson 390e
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Meetings
Reserved meeting hours are MF 12:00-1:20 in Thompson 387. Most weeks we will only meet as a class on Monday, and I will meet individually with groups on Friday. We will also meet on a Saturday in late April or early May (TBD) for final presentations.

Course Description
This is it—the capstone to your major. This class will give you the chance to integrate the knowledge you’ve gained from across the curriculum, applying it toward a final, professional project of which you can be proud.

Students are expected to integrate the knowledge from multiple CS classes, in order to create a functional, high-quality application. For the most part, you are already assigned into groups working toward specific problems. Managing your time and working with a team successfully are important parts of this class.

Students are also required to read several important papers over the semester, in order to gain a sense of the history of computer science. Most Mondays there will be a short quiz on the week’s reading, followed by a discussion of the papers in question.

Most of the work here will be self-directed. You will need to keep yourself on task, even when there is no assignment immediately due. You are seniors. It is assumed that you are intelligent and motivated, and able to solve the unforeseen issues that will arise.

Learning Outcomes (Class Goals)
The specific goals for this course include:

• To independently explore an advanced topic in computer science.
• To formally present work in both oral presentations and written reports.
• To constructively critique and discuss the work of others.
• To trace the historical development of computer science.
• To learn \LaTeX\ and other presentation tools.
• To write a full résumé ready for finding a job.

Web Page
The class web page is located at http://mathcs.pugetsound.edu/~aasmith/cs440/. Valuable info and links will be posted there.

Prerequisites
You must be a senior to take this class, or have special permission from the instructor. In addition, you should have passed both CSCI 361 (Algorithms) and CSCI 240 (Software Engineering) with at least a C-. Knowledge from other upper-division courses will also help you with your project.

Course Policies
Enrollment in this course is by invitation only. You must be a senior, with a reasonable expectation of graduating in the next year.

Quizzes on readings will be given most Mondays, during the first 15-20 minutes of class. I will drop the lowest score from your grade. They will be closed-book.
Every group must give two 20-30 minute midterm presentations:

- The midterm presentation will be given the week before Spring Break. (The full class will be meeting that Friday, for this purpose.) This presentation will be on progress made so far, and tasks remaining to do.
- The final presentation will be given during “Math/CS Day”, which will be a Saturday in late April or early May. Your attendance is required. The public is invited to this event.

Of course, you are expected to follow school standards with respect to academic dishonesty: cite your sources, don’t plagiarize, and ask the professor first if you’re concerned about any gray areas. Infractions will be dealt with harshly. So long as you give credit where it is due, this shouldn’t be a problem.

**Grading**

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<thead>
<tr>
<th>Weekly Quizzes</th>
<th>Weekly Check-Ins</th>
<th>Midterm Presentation</th>
<th>Final Presentation</th>
<th>Final Report</th>
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As you can see, the majority of your grade will be determined by your project. Please work hard to make sure that it is of professional quality, that you can show off to friends, family, peers, and potential bosses.

**Attendance**

Please let me know if you will be missing a Monday class. Depending on circumstances, I may or may not let you take the quiz for that week.

**General UPS Info**

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Peggy Perno, Director of the Office of Accessibility and Accommodation, 105 Howarth, 253.879.3395. She will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Please review university emergency preparedness and response procedures posted at [www.pugetsound.edu/emergency/](http://www.pugetsound.edu/emergency/). There is a link on the university home page. Familiarize yourself with hall exit doors and the designated gathering area for your class and laboratory buildings. If building evacuation becomes necessary (e.g. earthquake), meet your instructor at the designated gathering area so she/he can account for your presence. Then wait for further instructions. Do not return to the building or classroom until advised by a university emergency response representative. If confronted by an act of violence, be prepared to make quick decisions to protect your safety. Flee the area by running away from the source of danger if you can safely do so. If this is not possible, shelter in place by securing classroom or lab doors and windows, closing blinds, and turning off room lights. Lie on the floor out of sight and away from windows and doors. Place cell phones or pagers on vibrate so that you can receive messages quietly. Wait for further instructions.

**Miscellany**

If there are any special holy days that you will be taking off, please let me know as soon as you can so that we can work around them.

Please consider getting a flu shot. Influenza kills, and disease can spread rapidly in the dorms. (And you really don’t want to fall behind on your project.)

Finally...if there’s anything else I can do to help you, please let me know. I’m willing to go out of my way to make this a valuable class for you, but I can’t do that unless you talk to me.