CS 440: Capstone

Professor

Adam A. Smith
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Thompson 410
Office Hours MTuW 11:00-12:00
x3557

Meetings

MWF 3:00-4:00 in Thompson 399. We will also meet on a Saturday in early May (TBD) for final presentations.

Course Description

This is it—your 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 project.

Projects should be one of two types. Applied projects will will integrate the knowledge from two or three other courses, in order to create a functional application. Students making these projects will create a formal proposal, implement the project, and then write a formal evaluation of its success. Students working on a theory project will identify an Outstanding problem within computer science, conduct original research into a solution, and then evaluate its strengths and weaknesses. Formal reporting will consist of both written reports and periodic oral presentations. Students may work individually, but are encouraged to work in teams.

Students will also be required to read several important papers over the semester, in order to gain a sense of the history of computer science. Each of these papers will require a quick written response, to verify that the student has read and understood it.

Class Goals (“Learning Outcomes”)

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.

Web Page

The class web page will be located at http://mathcs.pugetsound.edu/~adamasmith/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 taken both CSCI 361 (Algorithms) and CSCI 240 (Software Engineering). Further, other upper-division courses will help you with your project.

Course Policies

Enrollment in this course is by invitation only. Only students who successfully submit a proposal will be allowed to enroll.

There are no exams, and no traditional weekly programming assignments. 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.
Grading

Final grades will be determined as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal Check-Ins</td>
<td>10%</td>
</tr>
<tr>
<td>Reading Responses</td>
<td>20%</td>
</tr>
<tr>
<td>Final Presentation</td>
<td>10%</td>
</tr>
<tr>
<td>Final Report</td>
<td>50%</td>
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</tbody>
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As you can see, the majority of your grade will be determined by your project.

Boilerplate

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/. 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.

Finally...if there’s anything else I can do to help you, please let me know. I hope we have a good semester!