CS190: The Web, version 3.0. The Syllabus

Lectures:

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Tuesdays and Thursdays 2:30pm-3:45pm</th>
<th>Room: Math &amp; Science Center W304 (Lectures) and E308 (Labs)</th>
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</thead>
</table>

This course will be a guided tour through the concepts, ideas, and technology underlying the web's evolution into the modern ecosystem for commerce, information finding, and social interaction. We will also gain hands-on programming experience with key web applications such as search, online social networks, and web services. The assignments will primarily consist of lab exercises and individual and group programming projects to develop Web and Web 2.0 applications to do cool stuff.

Important: information on the class class website:

→ http://www.mathcs.emory.edu/~eugene/cs190/ ← always supersedes this syllabus.

Course Topics

- Theory and history:
  - Web infrastructure: history, networking/protocols, hardware, energy
  - Web services: mash-ups (usage) and underlying technology
  - Search: history, algorithms, structure of the web, technology (implementation)
  - Web 2.0 and online social networks: influence, search, technology
- Understanding important Web artifacts and applications:
  - E-commerce, advertising
  - Abuse: spam, hacking and the gray areas
  - Web 2.0 artifacts: (Blogs, Wikipedia, Yahoo! Answers, FB, Twitter)
- Practice/implementation
  - Basic Web development
  - Dynamic Web services + mash-ups
  - Online advertising (w/ Google AdWords)
  - Facebook development platform

Prerequisites:

Just like in any other class, the ability to think clearly and analytically is key to success in this class. A good understanding of high-school level mathematics and logic is helpful. Most importantly, a strong interest in learning about the web and the underlying web technologies is essential. This course will be fun and you will learn a lot, but expect to spend the time and effort developing, experimenting, and tweaking your projects.

Texts:

All the readings will be available online: texts will include accessible popular press and scientific articles, and occasionally parts of textbook chapters as needed. The expected reading amount will be roughly 1 article or (part of) a book chapter per week.

Grading:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Component</th>
<th>Details</th>
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<tbody>
<tr>
<td>25%</td>
<td>Individual assignments</td>
<td>5 total, mostly of them early in the semester</td>
</tr>
<tr>
<td>30%</td>
<td>Group small projects</td>
<td>2 total, roughly 2 weeks for each one</td>
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<tr>
<td>30%</td>
<td>Group final project</td>
<td>1 total, roughly 3-4 weeks long</td>
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<tr>
<td>10%</td>
<td>Pop Quizzes</td>
<td>6-8 total, roughly every two weeks</td>
</tr>
<tr>
<td>10%</td>
<td>Participation</td>
<td>ask good questions, participate in discussions... the usual.</td>
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Ways to connect:

Facebook group and/or Twitter account for this class: TBD

Instructor:

Professor Eugene Agichtein  
http://www.mathcs.emory.edu/~eugene/

| Office:          | E500 (5th floor), Emerson Hall. Telephone: (404) 727-7962 |
| Office Hours:    | TBD                                                        |
| Currently:      | by appointment. Email: eugene@mathcs.emory.edu             |

TA

TBD  
Office: Computer Lab 308  
Office hours: TBD

Course policies:

- Assignments are due the midnight of the due date (11:59pm).  
  - Late submissions are penalized by 10% for each day late, up to 3 days late max  
- Class work is covered by the Emory Honor Code policies (summary: no cheating or plagiarizing from other students or the web. I know how to use Google 😊 ).