CSC 210: Principles of Web Application Development
University of Rochester
Fall 2019

Course Information
The World Wide Web was born around 1990, so it is not much older than most of you. In this course, we will follow the growth and maturation of the Web. Along this journey, you will learn influential Web technologies such as HTTP, HTML, JavaScript, CSS, the LAMP stack, XML, JSON, Ajax, WebSockets, and modern MVC frameworks. Even though you will be doing a lot of programming in this course, its purpose is not to teach you to become an expert in any particular language or framework. Web technologies change at a blistering pace, so specifics quickly get outdated. However, once you take this course and understand the fundamentals, you will be able to easily pick up new technologies on the fly.

*No audits will be allowed for this course.

Credit Hours 4.0
Prerequisite(s) CSC172
Classroom CSB 209
Class Time 15:25-16:40
Office Hours Tuesday 16:45-17:45
Thursday 14:15-15:15
Study Sessions (TBD)
Instructor Information

B. Dickinson      bdicken3@cs.rochester.edu
Office     Wegmans Hall 2205

Teaching Assistants
Emma Strauch      estrauch@u.rochester.edu
Pooja Priya       ppriya@u.rochester.edu
May Shin Lyan     hwai@u.rochester.edu
Nicholas Salem    nsalem@u.rochester.edu

Course Mechanics

Materials

Textbook Flask Web Development: Developing Web Applications with Python
Additional readings from web resources will be posted as needed

Lecture Schedule (Subject to Change)

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday, August 29</td>
<td>Introduction and Client-Server</td>
</tr>
<tr>
<td>Tuesday, September 03</td>
<td>HTTP and Static Resources</td>
</tr>
<tr>
<td>Thursday, September 05</td>
<td>HTML and CSS</td>
</tr>
<tr>
<td>Tuesday, September 10</td>
<td>JavaScript and jQuery</td>
</tr>
<tr>
<td>Thursday, September 12</td>
<td>CGI and Dynamic Resources</td>
</tr>
<tr>
<td>Tuesday, September 17</td>
<td>Python Primer and Flask</td>
</tr>
<tr>
<td>Thursday, September 19</td>
<td>Query String and Request Body</td>
</tr>
<tr>
<td>Tuesday, September 24</td>
<td>Jinja2 Templates</td>
</tr>
<tr>
<td>Thursday, September 26</td>
<td>Web Forms (client)</td>
</tr>
<tr>
<td>Tuesday, October 01</td>
<td>Web Forms (server)</td>
</tr>
<tr>
<td>Thursday, October 03</td>
<td>Relational Databases and SQL</td>
</tr>
<tr>
<td>Tuesday, October 08</td>
<td>Introduction to SQLAlchemy</td>
</tr>
<tr>
<td>Thursday, October 10</td>
<td>TLS/SSL and Certificates</td>
</tr>
<tr>
<td>Tuesday, October 15</td>
<td>Fall Break</td>
</tr>
<tr>
<td>Thursday, October 17</td>
<td>User Authentication</td>
</tr>
<tr>
<td>Tuesday, October 22</td>
<td>User Authentication with Flask-Login</td>
</tr>
<tr>
<td>Thursday, October 24</td>
<td>User Roles</td>
</tr>
<tr>
<td>Tuesday, October 29</td>
<td>RESTful Web Services (part 1)</td>
</tr>
<tr>
<td>Thursday, October 31</td>
<td>RESTful Web Services (part 2)</td>
</tr>
<tr>
<td>Tuesday, November 05</td>
<td>JQuery and Ajax</td>
</tr>
</tbody>
</table>

Further Topics TBD by Interest
Grading

Assignments 35%
Quizzes 15%
Group Project 50%

Late Homework

Homework assignments handed in after the deadline without appropriate excuse will receive reduced credit. The maximum possible score on late homework will decrease by 10% for each day late. For example, an assignment which would receive a grade of 85% if handed in on time, would receive a grade of $85\% \times 90\% = 76.5\%$ if handed in the next day. The same assignment turned in three days late would receive a grade of $85\% \times 70\% = 59.5\%$. Following this system, homework handed in 10 or more days late cannot receive a grade higher than 0% and therefore will not be graded. Exceptions to this policy may be made by the professor in response to extenuating circumstances.

Assessment and Student Support

Academic Support Services

- College Center for Advising Services
- Disability Resources
- Center for Excellence in Teaching and Learning (CETL)
- Writing, Speaking, and Argument Program

Policies

Academic Honesty

All assignments and activities associated with this course must be performed in accordance with the University of Rochester’s Academic Honesty Policy. You may discuss homework problems with others, but you must not retain written (or photographed) notes from your conversations with other students, or share data via computer files to be used in completing your homework. Your homework must be completed without reference to such notes, with the exception of class and recitation notes, which may be retained in written form. This rule also applies to collaboration between different groups for your group projects. This rule is in place to ensure that you have learned and understand the material based on your discussion and are not simply copying what you were told at critical points in your assignments.
Disability Resources

The University of Rochester respects and welcomes students of all backgrounds and abilities. In the event that you encounter any barrier(s) to full participation in this course due to the impact of disability, please contact the Office of Disability Resources. The access coordinators in the Office of Disability Resources can meet with you to discuss the barriers you are experiencing and explain the eligibility process for establishing academic accommodations. You can reach the Office of Disability Resources at disability@rochester.edu; (585) 276-5075; Taylor Hall.

Attendance

Class attendance and participation is expected. I do not take attendance and you will notice that there is no attendance component to your grade. However, students that skip lectures will likely have a much more difficult time with quizzes, homeworks, and the group project.

Incompletes

This course follows the university policy regarding incompletes. Incompletes may be given only when there are circumstances beyond the student’s control, such as illness or personal emergency, that prevented the student from finishing the coursework on time.

Excuses

Students who are unable to attend or complete any part of this course due to illness should contact the instructor as soon as possible. Please note that the University Health Service does not provide retroactive excuses for missed classes. Students who are seen at UHS for an illness or injury can ask for documentation that verifies the date of their visit(s) to UHS without mention of the reason for the visit. Students with extended or severe illness should contact the College Center for Advising Services for advice and assistance.

Students with appropriate excuses for missing any deadlines must make arrangements in advance.