CSC 196W: Web Programming

Credits and contact hours: 1 unit

Course coordinator: Anna Baynes

Textbook: Readings, slides, and videos will be provided on the course website.

Catalog Description: Introduction to the World Wide Web; relationship between clients and servers, how web pages are created using several technologies: HyperText Markup Language (HTML), Cascading Style Sheets (CSS), JavaScript, Asynchronous JavaScript and XML (Ajax), server-side web services, integrate web applications with databases.

Prerequisites: CSC 130 and not currently enrolled in CSC 196W

Course Type: Elective

Course Outcomes: Students completing this course will be able to
1. Explain webpage structure with HTML5 and CSS;
2. Produce webpages with client-side interactivity utilizing JavaScript;
3. Identify current web programming concepts and technologies;
4. Produce web services with a server-side language; and
5. Apply web services as a client with JS and integrate web applications with databases.

Student Outcomes: This course contributes to the following student outcomes. Graduates should be able to
1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

Brief List of Topics:
1. Webpage structure and appearance with HTML5 and CSS
2. Client-side interactivity with JS DOM and events
3. Using web services (API's) as a client with JS
4. Writing web services with a server-side language
5. Survey of current web programming concepts and technologies (including Git version control, code quality guidelines in multi-language projects, accessibility, and form validation).
6. Integrating web applications with databases

Overall Grade:
- Weekly Assignments: 90%

- o Recommended deadlines given, but all weekly assignments must be turned in by May 6th
    - o Lowest 2 weekly assignments will be dropped
- Final Project: 10%
    - o Must be turned in by May 16th

Grade Breakdown:

Percent Grade: 92 and above: A, 90-91 A-, 88-89 B+, 82-87 B, 80-81 B-, 78-79 C+, 72-77 C, 70-71 C-, 68-69 D+, 62-67 D, 60-61 D-, 59 and below F

Most students will turn everything in and do well in this course. Please visit office hours or email me if you have any questions.