

Web Programming CS 365 independent study, Winter 2017

Instructor: Michael Kowalczyk

Office: 2222 Jamrich Hall

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Office Hours: 10:00am – 10:50am Mon/Wed/Thurs/Fri, or by appointment

Meeting time: 11:00am – 11:50am Thurs in 2222 Jamrich Hall

Overview:

This course teaches how to make fully interactive websites and web applications, targeted to multiple devices. Topics include HTML5, CSS3, JavaScript, jQuery, and Node.js. The focus of this course is mainly on client-side technologies.

Prerequisites:

CS 201 or both CS 101 and CS 122.

Course objectives:

This course is aimed towards *Computer Science* and *Mobile and Web App Development* majors who are at least halfway through the sophomore year of their respective programs. It forms part of the core for the *Mobile and Web App Development* major, but also serves as a CS elective for *Computer Science* majors. Upon successful completion of this course, a student should be able to do the following:

- Create websites using HTML and CSS, targeted for viewing on multiple platforms (mobile and desktop).
- Implement client-side programming using JavaScript.
- Programmatically manipulate CSS and the Document Object Model to implement client-side behaviors and visual effects.
- Communicate with server resources using AJAX.
- Program server-side functionality by using Node.js, including website features requiring a server push.

Evaluation of these learning outcomes will be done through projects and/or exams.

Suggested Textbooks:

- *The Modern Web: Multi-Device Web Development with HTML5, CSS3, and JavaScript* by Peter Gasston.
- *Beginning HTML5 and CSS3* by Richard Clark, Oli Studholme, Christopher Murphy and Divya Manian.
- *JavaScript Programmer's Reference* by Alexei White.
- *Pro jQuery* by Adam Freeman
- *Learning jQuery: Better Interaction Design and Web Development with Simple JavaScript Techniques* by Jonathan Chaffer and Karl Swedberg
- *jQuery, CSS3, and HTML5 for Mobile and Desktop Devices* by Oswald Campesato.
- *Professional Node.js: Building Javascript-Based Scalable Software* by Pedro Teixeira
- *Smashing Node.js: JavaScript Everywhere* by Guillermo Rauch.

Equipment:

You will need a computer with a web browser and Internet access. You will also need to do some software installations.

Grading:

Grades will be based primarily upon assignments, weighted based on their size and complexity. There will also be a final exam given at the end of the course.

80% Assignments

20% Final exam

Exam Date & Schedule Conflicts:

The final exam must be taken *at latest* Thursday, May 4 from 8:00am - 9:50am. If the student opts to take the exam earlier, that is fine.

Academic Conduct:

I work hard, with honesty and integrity; I expect my students to do the same.

Disability Services:

If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Dean of Students Office at 2001 C. B. Hedgecock Building (227-1700). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance with federal, state, and University guidelines.