Special Topic: Web Programming
CS 495 section 1, Winter 2014

Instructor: Michael Kowalczyk
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Office Phone: 227-1600
Office Hours: 12:00noon – 12:50pm Mon/Wed/Fri and 11:00am – 11:50am Thurs, or by appointment
Email: mkowalcz@nmu.edu
Class Meetings: 1:00pm – 1:50pm MWF in 1205 New Science Facility
Course Website: http://cs.nmu.edu/~mkowalcz/cs495

Overview:
This course teaches how to make fully interactive websites and web applications, targeted to multiple platforms – including mobile devices. Topics include HTML5, CSS3, JavaScript, jQuery, and Node.js.

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 (soon to exist) 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).
- Manipulate CSS and the Document Object Model via JavaScript and/or jQuery 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.

Textbook:
None required, but I have listed some suggested readings below – all of them are freely available as an E-book through the NMU library:

- 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.
- Pro jQuery by Adam Freeman
- 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 installs.

Grading:
Grades will be based upon assignments and a final exam. Assignments are weighted based on their size and complexity.
75% Assignments (mainly programming projects)
25% Final

Handing in Programs and Late Policy:
Everything is handed in electronically except for the final exam. Homework deadlines are strictly enforced; once a homework deadline passes, no further submissions or revisions will be accepted. Therefore I expect that you aim to hand in homework 3 days before the deadline. It is your responsibility to pace yourself accordingly. If for some reason you are having trouble handing something in, you can email it to me as an attachment before the deadline.

Exam Date & Schedule Conflicts:
The final exam will be on Monday, April 28 from 12:00noon - 1:50pm. Any conflicts with the exam (due to religious observances, other coursework, intercollegiate athletics, etc) must be made known to me within the first two weeks of the semester.

Laptop Use:
When we are not actively using the laptops I will ask you to put them away. Using your laptop during class for things not related to the course distracts others and irritates me.

You are responsible for keeping your laptop in good working condition and making frequent backups of your work. Note that the helpdesk does not backup your work if they need to fix your laptop (unless you want to pay them a fee), so make frequent backups to hardware external to your laptop before a crisis strikes.

Academic Conduct:
Academic dishonesty of any sort will result in a letter to the Dean of Students, and may include other additional consequences. Every assignment must be written entirely by you; anything else included in your work must be accompanied with a full citation crediting the source.

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.