

Syllabus

Internet Development II - COMP 431

10:00-11:15 TR, Science 207

Spring 2015

Instructor: Frank McCown
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Home Page: <http://www.harding.edu/fmccown/classes/comp431-s14/> (Syllabus, useful links)
Office Hours: Science 208: 2 – 3 MW, 2 – 5 TR, 2 – 4 F, or by appointment

Course Description

This course is a continuation of Comp 250. You should have a solid foundation in HTTP, HTML5, CSS, JavaScript, Ajax, and PHP. Topics covered include advanced JavaScript, jQuery, MEAN stack (MongoDB, Express, AngularJS, Node.js), RESTful web services, and ASP.NET. Prerequisites: COMP 245 and COMP 250, Co-requisite: COMP 345.

Required textbooks: *Learning jQuery, 4th Edition* by Chaffer & Swedberg (2013). ISBN: 178216314X
Write Modern Web Apps with the MEAN Stack by Dickey. ISBN: 0-13-396235-0

Exams

Two regular exams will be given in class as well as a final comprehensive exam covering the entire course and, in more detail, the information presented since the 2nd exam. If you are unable to take an exam as scheduled due to a serious illness or some other emergency, it is **your responsibility** to call me and leave a message **before** the exam or as soon as you are physically able. If an official school function takes you out of class on an exam date, it is your responsibility to make arrangements *one week prior* to the exam as to when you will take the exam. Usually it will be given early, not late. Makeup exams for excused absences will be given, but a penalty of up to 75% will apply for unexcused absences, at the teacher's discretion. Phones must be turned off and put away.

Programming Projects

There will be three major programming projects which will take a significant amount of time to complete outside of class. These projects will require you to integrate the information learned in class and perform some research to produce a non-trivial web application using a particular technology.

The first two projects will be completed in teams of two or three that will be assigned by the instructor. The final project will be completed by teams of your own choosing. Pair programming may be used but is not required. Teams will use git for version control and will make their code available on GitHub.com.

Quizzes and Assignments

Quizzes over reading assignments will be worth 10 points each. Other 10 point assignments will be given as homework and averaged with the quiz scores. All quizzes will be taken on Canvas *before* the class period on which the quiz is due. Even if you are absent from class, you are still required to take the quiz with the rest of the class. **No late quizzes will be given.**

Extra Credit

1. Giving blood: Donating at the Red Cross blood drives will earn you **0.2%** added to your final grade each time you donate. Donate as many times as you'd like, and give me a signed note confirming your donation each time you donate.
2. The McChallenge: **1%** will be added to your final grade for the completion of extra work on a project which will be made available to you later in the semester. The program will be due the last day of class. You can skip the project and still get the 1% added to your final grade if you defeat me in a game of basketball, tennis, racquetball, Halo, chess, Trivia Pursuit, or any other sport/game

that I know how to play. If you lose, you may still complete the extra project work to get your 1%. Only one challenge per semester, and no challenges the final week of class. Come by my office to schedule a time to play.

Grades

Final grades will be computed as follows: Standard letter grades: A = 90-100%, B = 80-89% C = 70-79%, D = 60-69%, F = 0-59%

Exams:	30%	Late work: A maximum of 10% will be taken off <i>each day</i> (not each class period) a program or assignment is late, up to 50%. Every day is counted, including weekends. Nothing more than 1 week late will be accepted. Those with excused absences are still expected to turn in assignments as soon as you are physically capable of doing so.
Projects:	30%	
Quizzes and Assignments:	20%	
Final Exam:	20%	

Final grades are not rounded unless the student has given significant effort which is evidenced by regular attendance, completion of nearly all homework assignments, significant effort on projects, etc.

Miscellaneous

1. Notes for each day will be made available to you on Easel. If you want to print them out, please do so *before* class so you don't disrupt others.
2. To be successful in this course, be prepared to spend at least **two hours outside of class** for every hour in class studying, reading, completing quizzes and homework, working on projects, and preparing for exams (about 9 hours total per week). If you do not have this much time to dedicate to the course, you should take it some other semester when you can make that commitment.
3. You must register for our course on Piazza and **check it regularly**. This is where you can ask questions and give help to others on homework, labs, and projects. This is also the best way to communicate with the class outside of the classroom.
4. Everyone is expected to hold to the **highest standard** of personal conduct and **integrity**. Cheating in all its forms is inconsistent with Christian faith and practice and will result in sanctions up to and including dismissal from the class with a failing grade. Homework and quizzes should be completed *individually* (not in teams or pairs), and it should be *your* work, not the work of someone else. One thing that you should *never do* is allow someone to see your source code as this often leads to cheating. Come by during office hours (or we'll arrange a time) for assistance on programs. Also see my [Plea for Integrity](#).
5. Please adhere to the **dress code** as spelled out in the Student Handbook. This includes men removing caps while in class. Please wear shoes to class (flip flops are OK).
6. There is **no food or drink** permitted in the lab. However, I will allow you to bring in a drink with a lid until we have a spill.
7. Lab computer monitors are to remain off until the instructor indicates it is time to turn them on. The computers may then only be used for **writing code** and other class related activities. Students that use the computers for other purposes (e-mail, surfing the Web, Facebook, games, etc.) will lose their privilege to use the lab computers.
8. Silence your phones, and **put them away**. It is very distracting to me and those around you when you text in class.

This course covers a broad array of topics, and it will take significant effort, persistence and practice to master all the concepts. Make sure you have allocated sufficient time in your daily schedule for working on homework and projects. Students who do the best in this course attend class regularly, turn in homework and assignments on time (because they don't procrastinate), and seek help from me when in a rut. Remember that I am here to help you.

Assessment

Harding University, since its charter in 1924, has been strongly committed to providing the best resources and environment for the teaching-learning process. The board, administration, faculty, and staff are wholeheartedly committed to full compliance with all criteria of the Higher Learning Commission of the North Central Association of Colleges and Schools. The university values continuous,

rigorous assessment at every level for its potential to improve student learning and achievement and for its centrality in fulfilling the stated mission of Harding. Thus, a comprehensive assessment program has been developed that includes both the Academic units and the Administrative and Educational Support (AES) units. Specifically, all academic units will be assessed in reference to the following Expanded Statement of Institutional Purpose: **The University provides programs that enable students to acquire essential knowledge, skills, and dispositions in their academic disciplines for successful careers, advanced studies, and servant leadership.**

Students with Disabilities

It is the policy for Harding University to accommodate students with disabilities, pursuant to federal and state law. Therefore, any student with a *documented disability* condition (e.g. physical, learning, psychological, vision, hearing, etc.) who needs to arrange reasonable accommodations, must contact the instructor and the Disabilities Office at the *beginning* of each semester. (If the diagnosis of the disability occurs during the academic year, the student must self-identify with the Disabilities Director *as soon as possible* in order to get academic accommodations in place for the remainder of the semester.) The Disabilities Office is located in Room 205 in the Student Center, telephone: (501) 279-4019.

Schedule

The following schedule is subject to change but gives you an idea of how the class will progress. The exams will definitely fall on weeks 5, 10, and 16.

Week 1 Jan 12	Introductions JavaScript functions Objects and classes	Week 6	Ch 1-3 – Intro to MEAN Ch 4 – Node API and MongoDB REST-based web services	Week 11	Intro to ASP.NET with C# ASP.NET Web Forms
Week 2	<i>MLK Day – no class</i> Closures and namespaces Ch 1 – Intro to JQuery	Week 7	Ch 5 – Node and AngularJS Ch 6 – Gulp CSS Preprocessors Project 2: MEAN	Week 12	ASP.NET MVC
Week 3	Ch 2 – Selecting elements Ch 3 – Handling events Ch 4 – Styling and animation Project 1: JQuery	Week 8	Ch 7-8 – Routing and authentication Ch 9 - WebSockets	Week 13	ASP.NET Web API
Week 4	Ch 5 – Manipulating the DOM Ch 6 – Ajax		<i>Spring Break</i>	Week 14	Entity Framework with Web Services
Week 5 Feb 9	Exam 1	Week 9	Ch 10-12 – Testing: E2E, Node, AngularJS	Week 15	Slack
		Week 10 Mar 23	Exam 2	Week 16	Final Exam May 4

“Whatever you do... do it all to the glory of God.” – 1 Cor 10:31