MEJO 487.1
INTERMEDIATE INTERACTIVE MEDIA

Fall 2018 / MW 12:00-1:45 pm / Carroll Hall Room 58

INSTRUCTOR

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OFFICE HOURS: Before class or by appointment

COURSE DESCRIPTION

The course teaches web development, web design and interactive storytelling. Students will use HTML5, CSS3, JavaScript and other programming languages to design, storyboard and script interactive projects. Students will collect and incorporate photos, text, video, graphics and database information into interactive multimedia presentations of the caliber one would expect in a major online publication.

This course expands on the skills learned in MEJO 187 and increases your ability to develop and present interactive media. You will begin by learning more advanced CSS and HTML, with an eye toward the latest CSS methods for responsive design. You will then learn essential skills in JavaScript and JavaScript frameworks (e.g., jQuery). Finally, you will couple your JavaScript skills with a knowledge of data visualization libraries and APIs to produce dynamic, data-driven web apps.

By the end of this course, you should be able to:

- Demonstrate proficiency in front-end web development with HTML5, CSS3, Bootstrap, and JavaScript
- Incorporate data, photography, graphics, audio, video and text into a compelling story
- Adhere to ethical journalistic standards

- Design beautiful, innovative, and responsive web apps
- Think programmatically and debug when problems arise

PREREQUISITES

MEJO 187 - Foundations in Interactive Media (or proven experience in HTML, CSS and responsive design).

COURSE STRUCTURE

This is a skills-based class, and as such, it takes a project-driven approach to learning. The course is anchored by four (4) major assignments.

Projects

Each of the four major projects in this course will require you to create an original, interactive web app. Further details will be provided in class. The specifications for each project will be outlined at least two weeks before the deadline, and you will have some time during class to work on the assignments. Do not, however, expect to be able to finish the projects with only the time spent in class; to meet expectations and produce good work, you should plan to spend a generous amount of time outside of the lab.

The fourth and final project should demonstrate the full gamut of web design and development skills you have learned during this course, including (but not limited to) advanced responsive design, JavaScript, jQuery, data visualization, asynchronous data loading, and application program interfaces (APIs). This last project is worth more points than the others because it requires extra effort and must prove that you have mastered all the skills and concepts in the course.

In-class Exercises, Assignments and Quizzes

Most of the lectures in this course will include in-class exercises to demonstrate the skills and allow you to practice them in real time. You always will be able to use your notes and textbook to complete the exercises, so be sure to bring them to class everyday. Some of these exercises may count as a quiz grade.

In addition to the in-class exercises, there will be approximately 10 smaller assignments to be completed after class. These assignments will challenge you

to take the core concepts from the lectures and build upon them. You will try, fail, and try again until you figure it out. I'm happy to help, but individual effort will be taken into account in the grading; there's no substitute for resilience when learning to code.

Professional Coding Test

There will be one exam during the second half of the semester, most likely on exam day (**Friday, December 14th at 12:00 pm**). This date may change based on the progress of the course, but regardless, you will be informed with plenty of time to study. This test will be similar to what you might expect during an interview for a junior-level, front-end web development job in the media industry.

GRADING

Your work must meet the following minimum standards to be considered for a grade of B or better:

- It meets the assignment specifications.
- It has few, if any, typographical, grammatical, or programming errors.
- It demonstrates a clear grasp of web design and development standards.
- It is completed on time. **Deadlines are absolute**. Extensions will only be granted because of extenuating circumstances (e.g., illness, etc.), and you must notify me as soon as you are aware of the problem. Your workload -- either in this class or in combination with others -- is not an extenuating circumstance. Unexcused failure to submit your work by the deadline will result in a **five-point deduction** for the first 24-hour period, followed by **10-point deductions** for each day thereafter.

When applicable, your work will also be judged on its aesthetic design, information architecture, usability, consumer value, creativity and innovation.

GRADING BREAKDOWN

ASSIGNMENTS	% OF GRADE
Exercises and Quizzes	20%
Project 1	15%
Project 2	15%
Project 3	15%
Final Project	25%
Coding Test	10%
Total	100%

LETTER GRADE	%
A	94-100
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
D+	67-69
D	60-66
F	0-59

ATTENDANCE

As mentioned earlier, most of the lectures this semester will include in-class exercises; if you miss the class, you miss the exercise, and since some exercises may count as quizzes, an unexplained absence could hurt your grade. You are allowed **one (1) unexcused absence** to account for that possibility.

HONOR CODE & PLAGIARISM

It is expected that each student in this course will conduct himself or herself within the guidelines of the UNC honor code. All academic work should be done with the high level of honesty and integrity this university demands. You are expected to produce your own work in this class. If you have any questions about your responsibility or your instructor's responsibility as a faculty member under the Honor Code, please talk with me or Senior Associate Dean Charlie Tuggle. You may also speak with a representative of the Student Attorney Office or the Office of the Dean of Students.

In this course, it is acceptable to use coding resources (such as tutorials and libraries) and *some* source code from sites like GitHub. But **the software license must allow for the usage, and the source should be credited**, **linked and commented in your code and credited visibly on the site, either in the footer or a credits page.** The source code should merely serve as a launch pad for your own, original work; it should not be copied wholesale. Information about software licensing is readily available in most sites that provide coding resources.

RESOURCES & SOFTWARE

Textbook

[JavaScript and JQuery: Interactive Front-End Web Development](#)

By John Duckett

ISBN-13: 978-1118531648

Available at the campus bookstore (but you may find a cheaper copy online).

Software

I will use **Atom** for in-class demonstrations and assignments, but feel free to use the IDE of your choice -- as long as it allows for efficient, legible editing of HTML/CSS/JavaScript code. Some students prefer Sublime or Kimodo Edit. Do not use Dreamweaver; it is not an industry-standard code editor.

Hosting

You should already have a web hosting service (i.e. server space) from MEJO 187. If your account has expired, you will need to sign up for a hosting service that allows for the creation of dynamic apps with client-side scripting and SFTP for file transfers. I prefer **Web Faction**, and I will use that to demonstrate PHP apps in the latter part of the course.

Course Websites

We will use **Sakai** for assignment submissions, grading, attendance, and other administrative matters, and **GitHub** for coding resources (e.g., starter files for some of your coding assignments). More information will be given during the semester.

Screencasts

I may record screencasts as part of the grading process for some of your projects. The screencasts provide real-time feedback, akin to having an employer sitting next to you at the computer and pointing out strengths, weaknesses, coding errors, and suggestions for improvement. I recommend that you watch them. They are short (no more than 15 minutes) and will help you debug and learn new techniques.

Seeking Help

If you need individual assistance, it's your responsibility to meet with me. If you are serious about wanting to improve your performance in the course, ask for help as soon as you realize you need it - whether the problem is difficulty with course material, a disability, or an illness. Don't be afraid to admit that you need extra guidance. Web design and development can be daunting, and some of the core concepts can be difficult to grasp at first glance. Before long they will be second nature to you.

DIVERSITY

The School of Media and Journalism adopted Diversity and Inclusion Mission and Vision statements in spring 2016 with accompanying goals – http://www.mj.unc.edu/diversity-and-inclusion.

UNC is committed to providing an inclusive and welcoming environment for all members of our community and does not discriminate in offering access to its educational programs and activities on the basis of age, gender, race, color, national origin, religion, creed, disability, veteran's status, sexual orientation, gender identity, or gender expression.

SPECIAL ACCOMODATIONS

If you require special accommodations to attend or participate in this course, please let the instructor know as soon as possible. If you need information about disabilities visit the Accessibility Services website at https://accessibility.unc.edu/

ACCREDITATION

The School of Journalism and Mass Communication's accrediting body outlines a number of values you should be aware of and competencies you should be able to demonstrate by the time you graduate from our program.

Learn more about them here: http://www2.ku.edu/~acejmc/PROGRAM/PRINCIPLES.SHTML#vals&comps

No single course could possibly give you all of these values and competencies; but collectively, our classes are designed to build your abilities in each of these areas. In this class, we will address a number of the values and competencies, with special emphasis on the "Professional values and competencies" listed below.

- Understand concepts and apply theories in the use and presentation of images and information.
- Demonstrate an understanding of professional ethical principles and work ethically in pursuit of truth, accuracy, fairness and diversity.
- Think critically, creatively and independently.

- Apply tools and technologies appropriate for the communications professions in which they work.

SCHEDULE - FALL 2018

Note: Schedule is subject to change.

CLASS	DATE	TOPICS	HOMEWORK
1	Wed Aug 22	Introductions, policies, CSS review and advanced methods	Lynda.com tutorial: CSS Grid; Exercise 1
2	Mon Aug 27	CSS Grid & FlexBox, Project 1 assigned	W3 Schools tutorial: FlexBox
3	Wed Aug 29	CSS Sprites, Command Line	Exercise 2
	Mon Sep 3	Labor Day - no class	
4	Wed Sep 5	Git & GitHub	Work on Project 1
5	Mon Sep 10	Git continued; lab time for Project 1	Work on Project 1
	Tue Sept 11	Project 1 due at 5:00 pm	
6	Wed Sep 12	Review finished projects; JavaScript part 1 (intro, variables, data types)	Ch. 1 & 2 of textbook
7	Mon Sep 17	JavaScript part 2 (functions & objects)	Ch. 2 of textbook; Exercise 3
8	Wed Sep 19	JavaScript part 3 (DOM manipulation)	Ch. 5 & 6 of textbook; Exercise 4
9	Mon Sep 24	JavaScript part 4 (arrays & loops)	Ch. 4 of textbook; Exercise 5
10	Wed Sep 26	jQuery, Interactive Storytelling, Project 2 assigned	Ch. 7 of textbook; pitch Project 2 idea before next class
11	Mon Oct 1	jQuery plugins	Exercise 6
12	Wed Oct 3	jQuery advanced; lab time for Project 2	Work on Project 2

13	Mon Oct 8	Lab time for Project 2	Work on Project 2
	Tue Oct 9	**Project 2 due at 5:00 pm**	
14	Wed Oct 10	Intro to AJAX (vanilla and jQuery); setting up local servers	Ch. 8 of textbook
15	Mon Oct 15	XML data, Project 3 assigned	Ch. 8; Exercise 7
16	Wed Oct 17	JSON data	Exercise 8, research stories for Project 3
17	Mon Oct 22	Principles of Data Journalism	Lynda.com tutorial: Excel Essential Statistics Training, parts 1 and 2
17	Wed Oct 24	Charts: C3 and HighCharts	Reading on data journalism (list to be given in class); continue researching data stories; pitch before next class
18	Mon Oct 29	Charts continued: Tau and DataTables	Work on Project 3
19	Wed Oct 31	Lab time for Project 3	Work on Project 3
	Sun Nov 4	**Project 3 due at 5:00 pm**	
20	Mon Nov 5	Intro to APIs; Google Maps API	Ch. 9 of textbook; Exercise 9
21	Wed Nov 7	Visual APIs (Flickr & YouTube); Project 4 assigned	Finish in-class exercises; begin researching final project stories
22	Mon Nov 12	News APIs	Exercise 10
23	Wed Nov 14	Intro to PHP	PHP tutorial (w3 schools)
24	Mon Nov 19	Twitter API	Read tutorials: **https://tinyurl.com/hvclfgb** **https://tinyurl.com/hb6rglp** Pitch final project idea before next class
	Wed Nov 21	Thanksgiving break - no class	
25	Mon Nov 26	Twitter API continued; lab time	Work on final project

27	Wed Nov 28	Lab time for final project; prep for coding test	Work on final project
28	Mon Dec 3	Lab time for final project; prep for coding test	Work on final project
29	**Wed Dec 5**	**Final Project due**	
	Fri Dec 14	**FINAL EXAM (CODING TEST): 12:00 pm**	