

Introduction to Web Apps for Communicators

JOU 3363 | Fall 2024 | Section 13786

Lecture: Tuesday periods 8–9 (3–4:55 p.m.) in Weimer 2056

Lab: Thursday periods 8–9 (3–4:55 p.m.) in Weimer 2056

Instructor: Mindy McAdams, Professor, Department of Journalism
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Office: 3049 Weimer Hall
Office hours: Tuesday 1–3 p.m. in my office | and by appointment
Office phone: (352) 392-8456 (NOTE: Email is better. Much better.)
Website: UF Canvas LMS

Course Description

Introduces web markup, coding, and programming for journalism and communications students with no prior coding experience. Explore media-industry best practices for front-end web development, problem solving and algorithmic thinking, and recent examples of interactives and apps from media organizations.

Prerequisites: Any JOU, ADV, MPMT or PUR major, or instructor permission

Course Objectives

At the end of the course, students should be able to:

1. Name, list and use common HTML and CSS syntax and structures to create stand-alone web and mobile apps that are standards-compliant.
2. Use GitHub to set up and collaborate on web and mobile projects.
3. Apply algorithmic thinking to analyze a problem and construct a solution.
4. Name, list and use common JavaScript syntax and structures.
5. Create interactive quiz applications using JavaScript and HTML forms.
6. Create interactive charts and graphs using Highcharts and JavaScript.
7. Create interactive maps using Leaflet and JavaScript.
8. Create interactive image displays and menus using vanilla JavaScript.
9. Use and adapt a web framework to create fully responsive apps that work across a variety of device sizes.

Attendance and Attitude

Students are expected to show respect for one another and for the instructor by arriving before the class starting time. Attendance is taken. Students must attend the lab section in which they are enrolled because we cannot accommodate more than 15 students in a lab. No credit will be given for attending the other lab section. **Lateness and absences will result in a lower final grade.** If you have been absent, you are responsible for finding out about any missed material by consulting another student and/or going to the instructor's office hours. These matters will not be handled via email.

This is a fully in-person synchronous course. There is no remote learning or Zoom.

Mobile devices must be placed out of sight and silenced during class. Do not check text messages, social media, email, etc., during class, as your instructor considers this quite rude and therefore grounds for disciplinary action. **Give your full and undivided attention to anyone who is speaking in class, including your fellow students.** Another student might ask a question that will help you, if you are listening.

Students are expected to use a laptop computer during class. However, if you are checking sites unrelated to the immediate topics being discussed in class, penalties may be imposed. Penalties range from a warning (first offense) to grade point deductions. It is hoped you will get the most value possible out of your in-class time.

UF Attendance Policies

> <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Course Deadlines and Makeup Work

Late assignments are not accepted unless an emergency can be documented. This means that an assignment submitted late is graded as a zero. Assignments are not accepted via email unless requested by the instructor. If an illness or a personal emergency prevents you from completing an assignment on time, advance notice and written documentation are required. If advance notice is not possible because of a genuine emergency, written documentation will be required. No work for "extra credit" is accepted.

NOTE: Assignment deadlines in Canvas are usually set for 11:59 p.m. If you submit after the deadline, your assignment is late. Your inability to upload *at the last minute* is not a valid excuse for lateness.

Please note that specific attendance circumstances such as religious holidays, illness, sports, and field trips for other courses are covered under the UF Attendance Policies *linked above*.

I'm strict about deadlines because I have to manage my time to grade students' work and provide feedback, etc. That said, if you do have an unusual circumstance, please don't suffer in silence. Reach out and let me know as soon as possible.

Academic Dishonesty

Academic dishonesty of any kind is not tolerated in this course. It will be reported to the student's department chair AND to the university's Dean of Students—and **it will result in a failing grade for this course.** A formal report of the offense will be filed with the university's Dean of Students.

Academic dishonesty includes, but is not limited to:

- Using any work done by another person *or an automated system* and submitting it for a class assignment.
- Submitting work you did for another class or course.
- Copying and pasting code written by another person *or an automated system* in place of solving the assigned problem on your own. (Note: In some cases an assignment will instruct you to use code written by others. Those cases are exempt.)
- Sharing code *written by you* with another student. You may talk about *their* incomplete code, but do not show them *your* completed code or allow them to copy your code.

Using ChatGPT instead of using what you learn in the course

If a student uses ChatGPT, GitHub Copilot or some other AI “helper” to complete assignments, depending on how much help it provides, that might violate the UF Honor Code. Consider this: The assignments are crafted by your instructor specifically to use the skills and techniques covered in the course. The AI helper is not taking the course, so it might use outdated techniques, or just techniques we have not covered. Your instructor will feel free to deduct points whenever your work includes code, tags, commands, etc., that have not been covered in the course materials. If you intend to argue about point deductions, you will need to provide the specific resources you used to discover the disputed code. I do mean *specific*; I'm not going to spend my time reading through a big tutorial or post to try to find where you found the code. To avoid unpleasantness, I suggest you simply do the work yourself. Otherwise, why are you taking the course?

UF Student Honor Code

> <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

Required Book, Videos and More

Students are required to read many assigned chapters in this book:

Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics (5th edition), by Jennifer Niederst Robbins (O'Reilly, 2018)

All students are expected to possess their own copy of the book, whether printed or electronic. **Quiz questions are taken from the book.** Students might need to use the book during lab. **Note that the 4th edition is NOT an acceptable substitute.** Much has changed since 2012, when that edition was

published. We will use *other* sources for JavaScript, but the HTML and CSS covered in the book are *not* outdated.

Videos that supplement and explain the assigned readings are here:

- > <http://bit.ly/web-apps-vids> < complete list, all videos
- > <http://bit.ly/web-apps-playlists> < playlists for each week/module

The videos are NOT an adequate substitute for the book. Watching the videos should make concepts and skills in the assigned reading clearer. **Students must complete the assigned reading and videos for the week BEFORE class meets that week.** Videos for the week are listed and linked in Canvas.

Web hosting

Students in this course will not need to pay for web hosting for their projects. Your websites and apps for assignments and for the final project will be hosted at [GitHub.com](https://github.com), which is free.

Laptop

All students in this course must own a laptop they can bring to class with them. Managing files and folders is part of the workflow you will be learning, and using your own computer is key. **A tablet will NOT be sufficient for this course.** Any operating system is okay, but **Mac OSX is preferred.** For assistance with your operating system or hardware, or with UF wifi, please use the UF Computing Help Desk (<http://helpdesk.ufl.edu/>) if you cannot solve a problem. *Bring your power cord to class with you.* Make sure to keep your operating system and applications up to date.

Headphones or earbuds

During lab, you might find you need to re-watch some of the course videos. For this reason, please be sure to always bring headphones or earbuds to lab. Do not play audio in the lab without them.

The Flipped Classroom and Your Success

This course operates on the “flipped classroom” model, in which we spend most of our face-to-face time doing work (you work, and I answer your questions).

What about the lectures? Are you being cheated out of your lectures?

No, you’re not missing anything. **The course videos** cover what I would have done in person in the old model of “Teacher talks, students listen.” In the videos, I have covered most of what I would have done in face-to-face lectures — which, in this course, largely concerns teaching you how to think about and work with code. (The videos are *linked* on the previous page of this document. They are also linked in each module in Canvas.)

I feel strongly that learning code practices from videos is much better than trying to learn them “live,” because each of us has a different attention span for this kind of material. Sometimes you grasp a

concept by seeing it once, but in other cases you'll watch a video multiple times before you really get it. **Many students are able to watch many of the videos at 2x speed.** I speak rather slowly in the videos.

You can't really binge these videos. Take breaks. And **take notes!** It helps a lot.

My expectation is that you will **watch the videos and read the book *before class (lecture) on Tuesday.***

The Tuesday class meeting serves largely as an abbreviated summary of the assigned videos and reading. Or you can think of it as highlights. I'll also talk about the week's assignment.

The videos are directly tied to the assigned readings, but they do not cover *everything* that is in the readings. Some students will get more out of the book, and others will get more out of the videos, but the expectation is that every student will use BOTH the book AND the videos to learn the material necessary to do well on the quizzes and assignments.

There are also video walkthroughs for the early assignments.

Many students find they learn better if they watch some of the videos *more than once.*

It is your responsibility to watch the videos, etc., *before you come to lab*, so that you are prepared to begin work on that week's assignment *during* lab, while an instructor is available to answer your questions.

Lecture, Lab and Workshop Hours

The lecture is for an overview of the week's work and objectives, your questions about the week's readings and videos, and reporting/resolution of any problems that have come up.

The lab is for you to work on and possibly complete your assignment for the week. To be prepared to work on the assignment, you need to have FINISHED reading the assigned readings and watching the assigned videos. You have two hours during which you can get live, hands-on help with the assignment.

Workshop hours are always optional. Get hands-on help with the week's assignment. Workshop hours may be virtual only, depending on participation.

Here's how I would plan my coursework for the week *if I were a student* in this course:

1. Read book and watch videos during the weekend and on Monday (before the quiz deadline).
2. Come to lecture on Tuesday and ask questions about anything that's not clear.
3. Before coming to lab, read the week's assignment and then review any videos I might not have understood. Make sure I've finished all the prep I need to do the assignment.
4. Plan to spend the entire lab working on the assignment. Aim to finish it during lab, if possible.
5. If I finish the assignment during lab, I can start on next week's readings and videos before the weekend.
6. If I can't finish the assignment during the lab, come to workshop hours for more help.

Course Requirements and Grading Policies

Read this entire document (the syllabus) in the first week of classes. If anything is not clear to you, ask me for clarification **before the last day of Drop/Add (August 28, 2024)**. This syllabus is a contract between you and me.

Please make sure to check the relevant Canvas module early in the week. Plan your work accordingly so you have enough time to absorb the material. All your deadlines are in Canvas.

Quizzes

There will be at least one quiz every week. Quizzes are in Canvas and are always open-book. Quizzes cover the assigned readings for the coming week. These are always listed in precise detail in the module's "Assigned readings" document in Canvas. Deadlines are in Canvas. Any quiz not submitted by the deadline is graded 0. The quiz is *before* the lecture to ensure that you've done the assigned prep.

Assignments

There will be one assignment every week. Assignments are provided in Canvas along with exact deadlines. Each assignment is likely to require *a substantial time commitment* from the student. For assignments *after* the first few weeks, it is very likely you will need *more time* than the two lab hours. **All students are strongly encouraged to come to the workshop hours for help with the week's assignment if they have not finished it by that time.** Any assignment not submitted by the deadline is graded 0.

Final project

In the final weeks of the course, you will create an interactive web app. A personal online portfolio is NOT permitted as a project. The project must include **JavaScript** in a meaningful way (not just for the sake of having it there). The app must be of interest to a defined audience. It must work well on mobile (small screens). It must allow users to make choices (not just clicking links). The topic is your choice.

Professionalism

When choosing subject matter for your later assignments and the final project, keep in mind that these projects could be included in your professional portfolio. For that reason, I strongly encourage you to avoid unprofessional topics such as "my summer vacation" and "my favorite foods." You should choose topics that interest you — but they should *also* be of interest to others.

Attendance and participation

Points will be subtracted as detailed below. There are 10 possible points, which are 10 percent of your final course grade. Everyone starts with 10 points. It's up to you whether you lose any points. **Participation is expected**; you will be working on assigned projects during class. Absences due to illness, serious family emergencies, special curricular requirements, etc., will be handled in accordance with UF attendance policies, to which you will find a **link** on **page 2** of this syllabus.

- For each **lab** class meeting you do not attend at all: -1 point
One (1) missed lab is **excused** (no points taken); no formal excuse is needed.
- For each **lecture** class meeting you do not attend at all: -1 point
One (1) missed lecture is **excused** (no points taken); no formal excuse is needed.
- For chronic lateness—
 - If you have been marked late 5 times or more for either lecture or lab): -1 point
 - If you have been marked late 10 times or more for either lecture or lab): -2 points
- For leaving lab early without having completed the assignment: You will be warned about this if your assignment grades are poor, or if you are missing assignments.
- For leaving lecture before the class is formally ended: If this happens more than once, the second and all subsequent incidents will be -0.5 point each.
- For repeatedly showing inattention, e.g. doing other stuff on your laptop, checking your phone during lecture, or chatting socially with friends during lecture or lab: You will be warned about this. After two warnings, a third incident will be -1 point.

Enforcement of these attendance policies will, it is hoped, inspire you to take your lecture and lab opportunities seriously.

Grades

Quizzes	30 percent
Assignments	50 percent
Final project	10 percent
Attendance and participation	10 percent
TOTAL	100 percent

92–100 points	A	72–77 points	C
90–91 points	A–	70–71 points	C–
88–89 points	B+	68–69 points	D+
82–87 points	B	62–67 points	D
80–81 points	B–	60–61 points	D–
78–79 points	C+	59 points or fewer	E

UF Policies about Student Grades

- > <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

UF Dates (Fall 2024)

Classes begin	Aug. 22	Sept. 2	Labor Day
Drop/Add	Aug. 22–28	Oct. 18–19	Homecoming
Classes end	Dec. 4	Nov. 11	Veterans Day
Final exams	Dec. 7–13	Nov. 25–30	Thanksgiving Break

Students with Disabilities

Students requesting accommodations must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student, who must then provide this documentation to the instructor when requesting accommodations. Accommodations must be discussed in private, not in the classroom. Schedule a meeting (in person or Zoom) to discuss your accommodations with me.

UF Disability Resource Center

> <https://disability.ufl.edu>

Course Evaluations

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. Students will be notified when the evaluation period opens and can complete evaluations in their Canvas course menu under GatorEvals, or at: <https://ufl.bluera.com/ufl/>

Summary results of these assessments are available to students:

<https://gatorevals.ua.ufl.edu/public-results/>

Course Workload

One credit hour is defined by the U.S. Department of Education as “one hour of classroom or direct faculty instruction **and a minimum of two hours of out-of-class student work each week** for approximately fifteen weeks for one semester.” It is entirely reasonable for a **three-credit** university course to require students to spend **six to nine hours outside of class each week** working on assignments, reading, etc. **Elective courses** — particularly professional electives, such as this one — are NOT expected to require less time and might in fact require *more* time, as these electives are extending your knowledge beyond the basics taught in required courses.

For this course, you may consider the lecture and videos as “classroom or direct faculty instruction” (3–4 hours per week) and the lab, readings, quizzes and assignments as out-of-class student work (5 to 9 hours per week). If you don’t have the amount of time required, you might do poorly in this course.

Course Schedule and Required Work

Please note that many important details are in Canvas and do not appear herein. **Assigned readings, links to videos, resources, etc., are in Canvas.** Quizzes due every Monday are based on the assigned readings in that same week. Assignments are due every Friday.

Week 1 | Aug. 26–30

Introduction to the course. Tools, technologies and outcomes. Text editor programs.

Module 1

Syllabus quiz

Week 2 | Sept. 2–6

Monday is Labor Day

Roles of HTML, CSS, JavaScript. web browsers, client/server, request/response.

Introduction to **HTML**: Structure, markup, images.

Module 2

Quiz 1 due ~~Monday~~ Tuesday (Sept. 3) — would be Monday, but it's a holiday.

Assignment 1 due Friday (Sept. 6) **The Monday and Friday pattern continues every week.**

Week 3 | Sept. 9–13

HTML part 2: Text markup, lists, links, images. Block vs. inline elements.

Module 3, Quiz 2, Assignment 2

Week 4 | Sept. 16–20

Introduction to **CSS**: Overview, selectors, colors, backgrounds, pseudo-classes.

Introduction to **GitHub**.

Module 4, Quiz 3, Assignment 3

Week 5 | Sept. 23–27

CSS part 2: Margins, padding, borders, box model, box-sizing, flexbox.

Module 5, Quiz 4, Assignment 4

Week 6 | Sept. 30–Oct. 4

Introduction to CSS grid. Web fonts, including Google fonts. Font sizes: em, rem and percentages.

Handling typography. Introduction to responsive design.

Module 6, Quiz 5, Assignment 5

Week 7 | Oct. 7–11

Introduction to **JavaScript**. Using the JavaScript console. Variables, numbers and strings, Booleans and logic operators, data types, basic math, if-statements, arrays.

Introduction to **Repl.it**.

Module 7, Quiz 6, Assignment 6

Week 8 | Oct. 14–18

Friday is Homecoming

JavaScript part 2: Loops, functions (parameters and returns), scope of variables. Algorithmic thinking, problem breakdowns, pseudo code. Using JavaScript to write and rewrite HTML dynamically.

Introduction to **jsFiddle**.

Module 8, Quiz 7, Assignment 7

Week 9 | Oct. 21–25

JavaScript part 3: Objects. Working with JavaScript libraries.

Accessibility and web standards.

Introduction to **Highcharts** for data presentation (graphs and charts).

Module 9, Quiz 8, Assignment 8

Week 10 | Oct. 28–Nov. 1

HTML forms. Design and layout for forms and quizzes. Using JavaScript with forms.

Introduction to **Bootstrap**, a web framework.

Module 10, Quiz 9, Assignment 9

Week 11 | Nov. 4–8

JavaScript part 4: Understanding the DOM; handling **events**.

Module 11, Quiz 10, Assignment 10

Information and Q&A about your final project.

Week 12 | Nov. 11–15

Monday is Veterans Day

More JavaScript events.

HTML 5 audio and video embeds, formats.

Module 12, Quiz 11, Assignment 11

Project proposals are due Tuesday, Nov. 12.

Week 13 | Nov. 18–22

Introduction to **Leaflet**, another JavaScript library. Interactive maps for storytelling.

Module 13, Quiz 12, Assignment 12

Week 14 | Nov. 25–29

Thursday is Thanksgiving

No quiz. No assignment. No lecture. No labs. No workshop hours.

Please work on your final project this week. Delay is not good.

Week 15 | Dec. 2–4

Lecture meets on Tuesday as usual, but attendance does not count. Note, there is no lab this week.

No quiz.

All projects are due on **Monday, Dec. 9, at 11:59 p.m.** This is the Monday of finals week.

Please note that **Dec. 3** is not a typical class meeting day. Attendance is optional. You may come and get help with your project.

Weekly topics are subject to change. Please check in Canvas for the latest updates.

A Note about Office Hours

The link below provides a grid that shows my schedule. All white cells in the grid are open for appointments. Please give me 24 hours to respond to your request, and please send your request in email, not in Slack. Tuesday 1–3 p.m. is *drop-in time* — no appointment is needed!

<https://docs.google.com/spreadsheets/d/1coH020Bvzs0-GXV2dQP1B7zUUE2ma0DBRC0iXr24FRY/edit?usp=sharing>

How to Communicate with Me, Your Instructor

For *private communications*, regarding your grades, accommodations for disability, etc., please use email.

- Email directly in our Canvas course is great.
- Email me outside Canvas at mmcadams@ufl.edu — also fine.

For *questions about any assignment*, you should use our class **Slack**, in the #assignments channel. Someone else might have already asked the same question! It might already have an answer there!

Slack provides a way to interact easily. You can private-message anyone in our Slack by finding their name in the bottom left list (desktop app or web). The heading is “Direct messages.” These are private.

Make sure to read all **Announcements** posted in **Canvas**. I will use the Announcements to remind you about deadlines or any changes in class meetings, assignments, etc.

Your Privacy and Class Recordings

Any student-made recording of any class meeting must comply with Florida state law:

<https://www.flsenate.gov/Session/Bill/2021/233/?Tab=BillText>

As in all UF courses, **unauthorized sharing**, publication or uploading to any online platform of recorded materials (or any class materials) is **prohibited**.

Only an in-class lecture may be recorded. **The law states:** “A class lecture **does not include** lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.”

The privacy of all students in the class must be respected by the instructors, teaching assistants and all other students or visitors to the class.

Additional information from UF:

<http://aa.ufl.edu/policies/in-class-recording/>