

Introduction to Web Apps for Communicators

JOU 3363 | Fall 2019

Lecture: Tuesday period 6 (12:50–1:40 p.m.) in LAR 310 (Larson Hall)

Section 16033 Tuesday night lab (Stanton): periods 11–E2 (6:15–9:10 p.m.) in Weimer 2050

Section 16032 Wednesday lab (McAdams): periods 4–6 (10:40 a.m.–1:40 p.m.) in Weimer 2050

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Office hours: Monday 1:30–3:30 p.m. | and by appointment
Workshop: Friday in Weimer 3020, 1–4 p.m.
Office phone: (352) 392-8456 (NOTE: Email is better. Much better.)
Website: <https://introwebapps.wordpress.com/>

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, PUR or TEL 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 and jQuery 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 jQuery and/or vanilla JavaScript.
9. Use and adapt a web framework to create fully responsive apps that work across a variety of devices.

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 20 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.

Mobile devices must be turned OFF and placed out of sight 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. Moreover, you will miss things if you're checking your phone. **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 seen 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.

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 and submitting it for a class assignment.
- Submitting work you did for another class or course.
- Copying and pasting code written by another person 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.

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.

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 must acquire full-service web hosting and a personal domain name. The recommended provider is Reclaim Hosting. Your professor receives no kickbacks or other deals from Reclaim. Shared hosting costs \$30/year and includes registration for one domain. Domains must be renewed yearly or they will expire.

- > <https://reclaimhosting.com/>

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 strongly 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.*

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.

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.

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 *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 three hours during which you can get live, hands-on help with the assignment.

Friday workshop hours are always optional. This is a last chance to get hands-on help with the week’s assignment, which is due Friday night.

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 three-hour 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 Friday 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 26, 2019). 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.

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 three lab hours. All students are strongly encouraged to come to the **Friday 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 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.
Roll will be called at the start of each lab.
- For each **lecture** class meeting you do not attend at all: -0.5 point
One (1) missed lecture is excused (no points taken); no formal excuse is needed.
Lecture attendance is counted via a sign-in sheet. Signing in for another student is grounds for an academic dishonesty penalty; see **page 2** of this syllabus.
- 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. checking your phone during lecture, or chatting socially with friends during 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 2019)

Classes begin	Aug. 20	Sept. 2	Labor Day
Drop/Add	Aug. 20–26	Oct. 4–5	Homecoming
Classes end	Dec. 4	Nov. 11	Veterans Day
Final exams	Dec. 7–13	Nov. 27–30	Thanksgiving

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.

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. These evaluations are conducted online: <https://evaluations.ufl.edu/>

Evaluations are typically open during the final weeks of the semester. Students will be given specific dates when they are open. Summary results of these assessments are available to students: <https://evaluations.ufl.edu/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 hours per week) and the lab, readings, quizzes and assignments as out-of-class student work (6 to 9 hours per week).

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.

Week 1 | Aug. 20–23

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

Module 1

Syllabus quiz

Week 2 | Aug. 26–30

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

Introduction to HTML: Structure, markup, images.

Module 2

Quiz 1 due Monday (Aug. 26)

Assignment 1 due Friday (Aug. 30) **This Monday and Friday pattern continues every week.**

Week 3 | Sept. 2–6

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

Module 3, Quiz 2, Assignment 2

Week 4 | Sept. 9–13

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

Introduction to **GitHub**.

Module 4, Quiz 3, Assignment 3

Week 5 | Sept. 16–20

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

Module 5, Quiz 4, Assignment 4

Week 6 | Sept. 23–27

Introduction to CSS grid. Web fonts, including Google fonts. Em, rem and percentages.

Handling typography. Introduction to responsive design.

Module 6, Quiz 5, Assignment 5

Week 7 | Sept. 30–Oct. 4

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. 7–11

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. 14–18

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. 21–25

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 | Oct. 28–Nov. 1

JavaScript part 4: Introduction to **jQuery** and understanding the DOM.
Introduction to web hosting (set up your domain at Reclaim Hosting).
Module 11, Quiz 10, Assignment 10

Week 12 | Nov. 4–8

jQuery part 2: Interactive image displays, content overlays, accordions and sliding menus.
HTML 5 audio and video embeds, formats.
Information about your final project.
Module 12, Quiz 11, Assignment 11

Week 13 | Nov. 11–15

Introduction to **Leaflet**, another JavaScript library. Interactive maps for storytelling.
Module 13, Quiz 12, Assignment 12
Project proposals are due Sunday, Nov. 10.

Week 14 | Nov. 18–22

Lecture: Accessibility (a11y) and current best practices.
No quiz. Project work in lab. Friday workshop hours as usual.

Week 15 | Nov. 25–29

Thursday is Thanksgiving. Lecture will not meet.
No quiz. No assignment. No labs. No Friday workshop hours.

Week 16 | Dec. 2–4

Lecture and labs meet as usual. Attendance counts for both.
Project work in lab. Friday workshop hours as usual.

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 and 4** are normal class meeting days. If you are not present for lecture and/or lab, it will count as an absence.*

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