

Introduction to Web Apps

JOU 4930 | Fall 2016 | Section 049A | 1092 Weimer Hall
Tuesdays 10:40 a.m.–1:40 p.m. (periods 4, 5 and 6)

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Office: 3049 Weimer Hall
Office hours: Tuesdays 3–5 p.m. | And by appointment
Open workshop: Fridays in Weimer 3020, noon–4 p.m.
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WEBSITE: <https://introwebapps.wordpress.com/>

Course Description

An introduction to Web markup, coding and programming for journalism and communications students with no prior coding experience. We 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 JM, ADV, PR 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.
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. Attendance and arriving on time for class are necessary. ***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. Give your full and undivided attention to anyone who is speaking in class, including your fellow students.

Students are expected to use a laptop computer during class. However, if you are seen checking social media or any other 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. Please give your full attention to the class while you are in the classroom.

UF Attendance Policies

> <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

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. No work for "extra credit" is accepted. If advance notice is not possible because of a genuine emergency, written documentation will be required.

NOTE: Assignment deadlines in Canvas are usually set for 11:59 p.m. If you submit after the deadline, your assignment is late.

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.
- 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.

UF Student Honor Code

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

Required Book, Videos and More

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

Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics (4th edition), by Jennifer Niederst Robbins (O'Reilly, 2012)

All students are expected to possess their own copy of the book, whether printed or electronic. (About \$35 for a new printed copy on Amazon.) **Quiz questions are taken from the book.** Students might need to use the book during class. Ebooks (PDF, etc.) available at O'Reilly: <http://www.oreilly.com/>

Videos to supplement the assigned readings are here:

> <http://bit.ly/mm-apps-vids>

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.**

Web hosting

Students must acquire full-service Web hosting. The recommended provider is Reclaim Hosting. Your professor receives no kickbacks or other deals from Reclaim. Shared hosting costs \$25/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, please use the UF Computing Help Desk if you cannot solve a problem. *Bring your power cord to class with you.*

Headphones or earbuds

During class, you might find you need to re-watch one of the course videos. For this reason, please be sure to always bring headphones or earbuds with you.

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.

UF Disability Resource Center

> <http://www.dso.ufl.edu/drc/>

Course Requirements

Read this entire document in the first week of classes. If anything is not clear to you, ask me for clarification before Aug. 29. This syllabus is a contract between you and me.

Please make sure to check the course website at least once a week. If you rely only on a printed or downloaded copy, you may miss a change in the schedule.

> WEBSITE: <https://introwebapps.wordpress.com/>

Quizzes

There will be at least one quiz every week. Quizzes are in Canvas and are open-book. Quizzes cover the assigned reading for the week. On the Course Schedule page on the course website (see above), the readings covered on that week's quiz are listed under *the same week as the quiz*. Deadlines: In Canvas.

Assignments

There will be one assignment every week. Assignments are listed and LINKED on the Course Schedule page on the course website (see above). Exact deadlines: In Canvas. Each assignment is likely to require a substantial time commitment from the student. Each week there will be time during the class meeting to work on the assignment, but it is very probable you will need a lot more time than that. All students are encouraged to come to the Friday workshop hours for help with the week's assignment.

Presentation and project

In the final three weeks of the course, you will create an interactive Web app. You will present your project to the class. The project and presentation are graded together.

Attendance and participation

Points will be subtracted if you miss more than one (1) class meeting, are chronically late, leave class early without having completed assignments, or repeatedly show inattention. **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.

Grades and Grading Policies

| | |
|------------------------------|--------------------|
| Quizzes | 30 percent |
| Assignments | 50 percent |
| Presentation and 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/ugrad/current/regulations/info/grades.aspx>

UF Dates (Fall 2016)

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|---------------|------------|------------|--------------|
| Classes begin | Aug. 22 | Sept. 5 | Labor Day |
| Drop/Add | Aug. 22–26 | Oct. 14–15 | Homecoming |
| Classes end | Dec. 7 | Nov. 11 | Veterans Day |
| Final exams | Dec. 12–16 | Nov. 23–26 | Thanksgiving |

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 Schedule and Required Readings

Please note that many important details are on the website (<https://introwebapps.wordpress.com/>) and do not appear herein. **Assigned readings, links to videos, resources, etc., are on the Course Schedule page of the website. Quizzes due every Monday are based on the assigned readings in that same week.**

Week 1 | Aug. 23

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

Week 2 | Aug. 30

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

Introduction to HTML: structure, markup, images, links.

Quiz 1 due Monday (Aug. 29). Assignment 1 due Friday (Sept. 2). **This pattern continues every week.**

Week 3 | Sept. 6

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

Quiz 2 due Monday. Assignment 2 due Friday.

Week 4 | Sept. 13

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

Introduction to **GitHub**.

Quiz 3 due Monday. Assignment 3 due Friday.

Week 5 | Sept. 20

CSS part 2: Margins, padding, borders, box model, box-sizing, floats and position.

Introduction to Web hosting (set up your domain at Reclaim Hosting). GitHub and SSH.

Quiz 4 due Monday. Assignment 4 due Friday.

Week 6 | Sept. 27

Web fonts, including Google fonts. Ems, percentages and points. Handling typography.

Introduction to responsive design.

Accessibility and Web standards.

Quiz 5 due Monday. Assignment 5 due Friday.

Week 7 | Oct. 4

JavaScript introduction: Variables, numbers and strings, Booleans, basic math, if-statements, arrays, loops. Use of `console.log()` vs. `<script>` tags.

Introduction to **jsFiddle**.

Quiz 6 due Monday. Assignment 6 due Friday.

Week 8 | Oct. 11

JavaScript part 2: Functions (parameters and returns), scope of variables, more if-statements, more for-loops and more arrays. Defining problems. Problem breakdowns. Pseudo code.

Quiz 7 due Monday. Assignment 7 due Friday.

Week 9 | Oct. 18

JavaScript part 3: While-loops, do-while, loops within functions, functions within loops, combining if-statements and loops.

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

Quiz 8 due Monday. Assignment 8 due Friday.

Week 10 | Oct. 25

HTML forms; design and layout for forms and quizzes; JavaScript and forms.

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

Quiz 9 due Monday. Assignment 9 due Friday.

Week 11 | Nov. 1

JavaScript part 4: The switch statement, Booleans again, arrays, objects.

Introduction to **jQuery** and the DOM. Dynamic rewriting of all the things!

Quiz 10 due Monday. Assignment 10 due Friday.

Week 12 | Nov. 8

jQuery part 2: Interactive image displays, content overlays, accordions and menus.

HTML 5 audio and video embeds, formats.

Quiz 11 due Monday. Assignment 11 due Friday.

Week 13 | Nov. 15

Introduction to **Leaflet**: Interactive maps for storytelling.

Project proposals due.

Quiz 12 due Monday. Assignment 12 due Friday.

Week 14 | Nov. 22

Thursday is Thanksgiving. **Class meets Tuesday AS USUAL.** Project troubleshooting and workshop.

No quiz. No assignment. No Friday workshop hours.

Week 15 | Nov. 29

Project presentations in class.

No quiz. No assignment.

Week 16 | Dec. 6

Project presentations in class.

No quiz. No assignment.

All projects are due on Monday, Dec. 12, at 11:59 p.m. This is the Monday of finals week.

Please note that Dec. 6 is a normal class meeting day. If you are not present, it will count as an absence.

Weekly topics are subject to change. Please check the Course Schedule page on the course website for the latest updates.