

INFO 6150

Web Design and User Experience Engineering

Instructor: April Bingham
a.bingham@northeastern.edu
206-920-4470

TA:
Yiwei Luo
luo.yiw@husky.neu.edu

Class git repo
<https://github.com/aprilbingham-neu/seainfo6150>

Class react app repo
<https://github.com/aprilbingham-neu/seainfo6150-webapp>

Course objectives

At the end of this course, students will be able to:

- Identify HTML5/CSS and create a basic page with these languages
- Write valid, well-formed, scalable, and semantically appropriate HTML5 and/or CSS within the context of a React app
- Position web page elements using CSS
- Identify the types of images used in modern web design and explain what types are appropriate for different functions
- Understand basic usability, user experience and accessibility principles

Grades will be based on the following:

- 30% exams (3 Exams, 10% each)
- 40% weekly assignments (weeks 1-8, 5% each)
- 15% overall team project result (awarded equally to each participant)
- 15% individual journal/write-up of personal contribution to team project

You may submit a maximum of 1 revision to weekly assignments up to 2 weeks after the original assignment date. For example, week 1's assignment may be revised up to the beginning of week 3, week 2's assignment to the beginning of week 4, etc. I reserve the right to change this policy.

Exams are take-home and online.

Academic integrity:

I expect that, as a student of this class, you will adhere to the academic integrity standards of Northeastern University and that all work on exams and class projects will be your own, unless as part of a team project. Any evidence of copying someone else's work or allowing your own work to be copied by someone else will be used as the basis of a report opened with the Office of Academic Integrity.

Requirements:

- No previous knowledge of HTML or CSS necessary
- Basic knowledge of how to view websites via a browser is helpful
- Basic knowledge of how to push/pull code from git repo is helpful (This github guide is an excellent place to start: <https://guides.github.com/activities/hello-world/>)
- While JS, HTML, CSS can be written in a simple text editor, an IDE that can give context clues and guide basic syntax is useful. Here are some recommendations:
 - <https://atom.io/>
 - <https://www.sublimetext.com/>
 - <https://code.visualstudio.com/>

Class Schedule (subject to change!)

Week	Lecture Topics	Assignments/Lab
September 4, 2019 Week 1 Usability & accessibility	<ul style="list-style-type: none">• Principles of usability• Validation (html/css)• Principles of accessibility• Low vision/contrast, color blindness• ADA• Section 508• ARIA• Screen readers	Send me an email with 4 different websites: 1 you think is usable 1 you think is not usable 1 you think is accessible 1 you think is not accessible Explain your choices with principles discussed in lecture Fork class git repo Fork class react app repo Download IDE/editor for classwork
September 11, 2019 Week 2 Planning and design: wireframing, IA & design mocks	<ul style="list-style-type: none">• Information architecture• Product requirements• Navigation• User flows• Prototypes• Design mocks• Usability testing• Color theory• “Look and feel”• Things to consider at the design/planning stage	Choose a website that evokes a certain “look and feel” (“sophisticated”, “bold”, etc.) Email me an explanation of your choice with principles discussed in lecture and a wireframe of the homepage. You can use the http://framebox.org tool demonstrated in class or any other tool you like (Photoshop, Invision, pen and paper, etc.)
September 18, 2019 Week 3 HTML & JS with React	<ul style="list-style-type: none">• Overview of React• Class components• Functional components• Statefulness• Doctypes• DOM• Document parsing• Brief overview of HTML• Viewing HTML file in the browser• Document outline• html, head, meta• Semantic html	Create components in react app with HTML elements, make sure your HTML is validated. (tbd) Exam #1 posted

	<ul style="list-style-type: none"> • Sectioning blocks • Body, main, div, section, p, span • A • Strong, em • UI, ol, dl • Img • H1 - H6 • Header, footer, aside, nav, article • Figcaption, figure • Tables • Forms • HTML best practices 	
September 25, 2019 Week 4 HTML & JS with React	Continuation of topics from week 3.	Create components in react app with HTML elements, make sure your HTML is validated. (tbd) Exam #1 due
October 2, 2019 Week 5 Presentation: CSS	<ul style="list-style-type: none"> • Brief overview of CSS • Cascade/inheritance • Specificity • Inline vs. external • Classes, ids • Box model, margin, padding • Color, background color • Borders • Selectors • Float • Positioning • CSS best practices • CSS modules • Typography overview • Importing fonts 	Take the components from week 3 & 4 and style them per requirements, make sure your CSS is validated. (tbd)
October 9, 2019 Week 6 Presentation: Images for web	<ul style="list-style-type: none"> • GIF • JPG • PNG • SVG • What format to use when? • Loss/compression • Background images • CSS effects (gradients, shadows) • CSS animations 	Take the page from week 5 and add images per requirements. (tbd)
October 16, 2019 Week 7 No Class	April will be at a professional conference in NYC	Exam #2 posted

October 23, 2019 Week 8 Presentation: Responsive & adaptive layouts	<ul style="list-style-type: none"> • Flexbox, grid • Responsive layouts • Adaptive vs. Responsive • Viewport • Display resolutions • Media queries • Responsive images • Responsive developer tools 	Take the page from week 6 and add flex/grid per requirements (tbd) Exam #2 due
October 30, 2019 Week 9 Presentation: Responsive & adaptive layouts	Continuation of topics from week 8.	Take the page from week 8 and make it responsive/adaptive per requirements. (tbd)
November 6, 2019 Week 10 Team projects, week 1	Project work	Split into teams for team projects Based on product requirements, work on wireframes, user flows, IA sitemap & UI designs for app
November 13, 2019 Week 11 Team projects, week 2	Project work	Project implementation
November 20, 2019 Week 12 Team projects, week 3	Project work	Usability testing
November 27, 2019 Week 13 No Class	Thanksgiving break	
December 4, 2019 Week 14	Final presentations of projects from teams	Final personal writeups due

Team projects presentations		
December 11, 2019 Finals week No Class		Final exam due