

Prospective Units

0 - The History of HTML5: Making it Interactive

1 - Animating with JS & CSS: Making it Move

2 - Responsive Web Design: Making it Fit

3 - HTML5 Resources: Making it Easier

4 - JavaScript Essentials: Making it Behave

5 - JQuery Essentials: Making it Simpler

6 - Debugging: Making it Work

7 - Offline Web Apps: Making it Always Available

8 - Painting the Canvas: Making it Visual

0 - The History of HTML5: Making it Interactive

Resources

Dive Into HTML5, Ch. 0 (Introduction - <http://diveintohtml5.info/introduction.html>)

Dive Into HTML5, Ch. 1 (History - <http://diveintohtml5.info/past.html>)

Dive Into HTML5, Ch. 3 (Semantics - <http://diveintohtml5.info/semantics.html>)

1 - Animating with JS & CSS: Making it Move

Resources

Dive Into HTML5, Ch 9 (Forms - <http://diveintohtml5.info/forms.html>)

2 - Responsive Web Design: Making it Fit

Resources

3 - HTML5 Resources: Making it Easier

Resources

Dive Into HTML5, Ch. 2 (Detecting Features - <http://diveintohtml5.info/detect.html>)

Introduce Modernizr, Twitter Bootstrap, and HTML5 Boilerplate

4 - JavaScript Essentials: Making it Behave

Resources:

AppendTo Training – JavaScript 101 (<http://learn.appendto.com/lesson/javascript-101>)

AppendTo Training – JavaScript 102 (<http://learn.appendto.com/lesson/javascript-102>)

AppendTo Training – JavaScript 103 (<http://learn.appendto.com/lesson/javascript-103>)

5 - JQuery Essentials: Making it Simpler

Resources:

<http://try.jquery.com>

AppendTo Training – Selectors 101 (<http://learn.appendto.com/lesson/selectors-101>)

AppendTo Training – jQuery Methods 101 (<http://learn.appendto.com/lesson/jquery-methods-101>)

6 - Debugging: Making it Work

Resources:

JavaScript Debugging for Beginners (<http://www.creativebloq.com/javascript/javascript-debugging-beginners-3122820>)

Debugging JavaScript (https://developer.mozilla.org/en-US/docs/Debugging_JavaScript)

7 - Offline Web Apps: Making it Always Available

Resources

Dive Into HTML5, Ch. 7 (Local Storage - <http://diveintohtml5.info/storage.html>)

Dive Into HTML5, Ch. 8 (Offline - <http://diveintohtml5.info/offline.html>)

8 - Canvas: Making it Visual

Resources

Dive Into HTML5, Ch. 4 (Canvas - <http://diveintohtml5.info/canvas.html>)

Assignment Details

I. Class Participation

For class participation, you are required to contribute ideas (e.g. raising questions, helping others, sharing info/experiences, answering questions, etc.) on the Sakai discussion boards throughout the semester. Helping others by answering questions or providing useful resources will be counted as 2 point each, maximum 10 points total. Questions related to learning materials or projects will be answered in the appropriate discussion forums rather than in private messages.

II. Mini Projects

The purpose of the units is to provide you with important knowledge and skills and practice activities while receiving feedback, which will help you with your mini projects and your major interaction project. Each student will complete all of the units. A unit is comprised of readings, walk-throughs and/or additional materials. You should strive to complete each unit to the best of your ability before asking for feedback on your mini project. You may feel free to use resources like HTML5 Boilerplate and Twitter Bootstrap for any of your projects in this course.

You will complete three mini projects throughout the semester. Which three you complete is entirely up to you, as is the order in which you complete them (due dates will be posted in the course schedule). Choose only three (3) of the following mini projects:

- **Mobile Website Mini Project:** Create a mobile website that pulls data from another site.
- **Visualization Demo Mini Project:** Evaluate and demo/showcase the power of one visual JavaScript library (processing.js, Raphael.js or paper.js, see <http://coding.smashingmagazine.com/2012/02/22/web-drawing-throwdown-paper-processing-raphael/>)
- **Interactive Form Mini Project:** Using CSS, html5, and JavaScript, create the front end of an interactive form (accessible, user-friendly, validates form data).
- **Offline Web Application Mini Project:** Create an html5 Web app that stores data in the browser for offline access.
- **JQuery Plugin Mini Project:** Create a usable, unique and useful jQuery plugin with interactive elements.

After grades and feedback for each project have been posted, you should try to improve your mini projects based on the feedback you receive, then upload your improved project to your Bengal space. This will help you to learn best practices, and encourage you to iterate on your design. Any updates you make should be pointed out in later assignment submissions (so that your updated work may receive an updated grade).

III. Major Interaction Project

For the major interaction project, you will create an immersive Web environment. You can use any code you have already created in earlier mini projects, but this will be a more substantial project. Your project should be representative of what you have learned in the course and of your web development capabilities (but should also be challenging for you). You will complete only one of the following major interaction projects (choose one that best fits what you see yourself doing in the future):

- **HTML5 Game:** Create a simple and unique html5 game with animation and interactivity.
- **Interactive 3D Experience:** Create an interactive 3D environment/visualization Web experience using JavaScript/CSS3/canvas.
- **Instructional Application:** Create an instructional Web app with animations and user interactivity.

IV. Synthesis Project

Near the end of the semester, you will synthesize what you have learned in the form of a Website that explains your work throughout the semester, and include reflections on what you have learned and demos of what you have created. You must also include an interactive photo gallery of some kind on at least one page of the site that uses a jQuery plugin.

V. Reflective Blogging

You will create a personal blog (if you do not yet have one), and will post substantive blog posts 8 times during the semester on aspects of your projects, what you are learning, and resources you have found. You will also provide feedback (via blog post comments) to one peer that you will be paired with during the semester (we will switch pairs midway through the semester to increase the diversity of your interaction). You should provide substantive feedback to your assigned peer's posts. You can receive a maximum of 20 points for this activity (2 points for each of your own substantive posts, up to a maximum of 16 points, and 0.5 points for each substantive comment on a peer's posts, up to a maximum of 4 points). This activity is meant to engage you in an important practice in the Web design field: public reflection on coding and resources.

There are **three (3) required blog post topics** (the rest should focus on your work in the course and resources you find):

- **Mobile Development:** Try out and compare/contrast 2-3 mobile development platforms – jQuery Mobile, PhoneGap, Sencha Touch, and Appcelerator Titanium.
- **Visual HTML5 Development Environments:** Use and compare/contrast 2-3 visual html5 development environments – Dreamweaver, Google Web Designer, Hippo Animator, Edge, Node Fire, Flash
- **Platforms & Browsers:** Test your projects on the major platforms and browsers (using spoon.net and devices/browsers available to you) – Platforms: Mac, PC, Android, iOS; Browsers: IE (8,9,10,11), Chrome, Safari, Mozilla Firefox.