J360 WEB DESIGN - SPRING 2017

LOCATION - Franklin Hall 060
SECTIONS
16278 - Meets MW 8:30am - 10:30am
17016 - Meets MW 10:45am - 12:45pm
INSTRUCTOR - Nic Aguirre - naguirre@indiana.edu
OFFICE HOURS - FF M130S (Stack 4), Friday 10:00-11:00a

Description

Web design has a profound impact on our everyday experiences of work, recreation, and communication. This course focuses on developing practical, marketable skills for front-end web development. Fundamentally, this course focuses on **experience** and **design** as they relate to web development; technical details and coding are secondary. The Internet is constantly evolving - sometimes in a way that is seemingly unpredictable and erratic. Upon completion of this course, students will have a strong foundation of the technical and design skills necessary to produce pleasant web experiences, and the skills to adapt to a constantly-changing medium.

Prerequisites

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(JOUR-J 110 or JOUR-H 110 or MSCH-C 101) and
(JOUR-J 200 or JOUR-H 200 or MSCH-C 225 or MSCH-H 225) and
(JOUR-J 210 or MSCH-C 226) with a grade of C- or better in each
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Objectives

In this course, you will:

- Learn principles of design and usability for web development
- Develop mastery of tools and applications for elegant web design
- Gain familiarity with the software development process
- Build an effective workflow and digital work environment
- Understand project management and version control for your code
- Produce aesthetic and functional websites using `HTML/CSS/JavaScript`
- Learn to develop for different platforms (mobile, responsive)
- Build numerous attractive portfolio pieces

- Gain a demonstrable command of front-end web languages
- Learn to adapt to a constantly-changing medium

Work

This class is project-driven, and demands consistent effort inside and outside of the classroom. Classes are intended to be variable and may feature lectures, tutorials, in-class exercises, discussions and lab time. Coverage of technical details such as code syntax is primarily handled outside of the classroom. Students will not use class time to take notes while a lecture is given; rather, the instructor will demonstrate while students follow. This is intended to offer a more engaging and less passive experience during class time.

Projects

You will be responsible for completing four projects, which will constitute 80% of your grade. Each project will require critical thinking and analysis, prototyping and design, and also a good amount of coding.

Because this course aims to provide tangible skillsets and viable portfolio pieces, the instructor aims to provide projects that will prove enticing or useful to those considering working in the industry.

Project 1 - HTML Tags and Attributes

Students will construct a minimal website outline using HTML. This project assesses students' knowledge of HTML tags and basic site structure. Project 1 aims to familiarize students with their text editors and development tools.

Project 2 - Styling and CSS

The focus of Project 2 is CSS. Students will demonstrate their ability to add visual elements and style to sites. Project 2 will test students' knowledge of CSS selectors, properties, and values, as well as the Box-Model.

Project 3 - JavaScript

Project 3 aims to add more functionality, aesthetics, and interactivity to websites. Basic JavaScript will be used to add interactivity or distinguishing design characteristics.

Project 4 - Integration

Students will use their comprehensive knowledge of HTML, CSS and JavaScript in a website that integrates all skills.

In-class Activities

Participation is an important element of this class. It is not enough to read about web design and its constituent languages; one must actively practice and hone their skills to be successful. Many of our classes will focus on the completion of certain exercises, tutorials, and discussions. The instructor reserves the right to adjust students' participation grade according to the level of participation and frequency of attendance for that student.

Homework

This class has four homework assignments designed to test and reinforce knowledge from class. Homework assignments will typically involve a shorter or less involved coding task.

Presentation

You will give an informal presentation, about five minutes in length, about a topic related to web design. While this course covers a lot of material, it only begins to scratch the surface of web development and computer programming. The idea behind these presentations is that students will do some research about a subject related to web design and share it with others.

Final

There is no final exam for this class.

Grade

There are a total of **100** points in this class.

The grade is divided as follows:

Assignment	Points
Four projects (15 each)	60
Four homework assignments (5 each)	20
One tutorial or presentation	10
Attendance and participation	10
Total	**100**

Your grade will be assigned as follows:

Points	Grade
93 - 100	A
90 - 92	A-
87 - 89	B+
84 - 86	B
80 - 83	B-
77 - 79	C+
74 - 76	C
70 - 73	C-
67 - 69	D+
60 - 66	D
59 and below	F

Grading criteria will be given for each individual assignment.

Revisions

When software is created in a professional environment, changes and revisions are common. Factoring that web development is an iterative process, students are allowed to revise and resubmit assignments. As long as students submit their work by the assignment due date, they may revise their work for an improved grade. The privilege to revise submitted work is only available for students who submitted substantial work; incomplete or dysfunctional code is not eligible for resubmission.

Extra Credit

One opportunity earn **two extra credit points** will be offered during the semester. The Institute for Communication Research needs research subjects, and you can participate in their research to receive extra credit.

If you do not want to participate in the ICR's studies, you can instead opt for an assignment that involves

building a small demonstration of a JQuery plugin.

Required Readings and Materials

There is no required text for this course. Most of our reading will be in the form of free documentation available on the web. Two sources we will reference frequently are **W3Schools** and **Codecademy**.

Hosting

You will need to purchase a domain name and hosting service. I recommend using asmallorange.com. The cost is about $5 per month for hosting. Most domain names available through asmallorange.com start at $15.

If you have another means of hosting - through IU Pages, Burrow, or GitHub pages, that is also fine. The idea is for you to build a functional website with your work as the semester progresses.

Software

Software is a focal point of this course, and an effort was made to ensure that free, cross-platform software will be used wherever possible. Tools, applications, and services prove invaluable in web development. A good deal of class time will be spent assisting students with installation and configuration of software.

We will use:

1. A text editor - SublimeText is recommended. Good alternatives are Atom and TextWrangler.
2. A means of version control - GitHub is recommended, Google Drive, Box, and Dropbox are good alternatives. **Lost data is not an excuse for late or missing work**, so it is extremely important to have duplicate files for your work.
3. A file transfer tool - OSX users can use Cyberduck, Windows users should use PuTTy

Hardware

While web development can be done from any operating system, the instructor teaches workflow for OS X users. Access to a computer with Mac OS X is recommended but not required. All students should have access to a Mac through the computer lab. Students who aren't using OS X are expected to learn PC keyboard shortcuts and find Windows-compatible substitutes for software.

It is also useful to have access to a large display, or dual display configuration. If you are bringing your own laptop to class, it is recommended to bring a mouse.

Policies

Attendance

Students should make a serious effort to attend every lecture. A repeated pattern of absence or tardiness will result in a deduction of points from your participation grade. Course material is cumulative in nature and class periods are used to develop programming skills and work on projects. As such, **attendance is the strongest guarantor of success** in this course.

Students are allowed **two unexcused absences** per semester. Additional absences will deduct points.

Lost Data

You are responsible for keeping backups/duplicates of your files. As an IU student, you should have access to a Box account. You can also use Google Drive or GitHub to maintain copies of your files. Losing your files is not an excuse for late or incomplete work.

Food and Drink in Class

Sorry, they are not permitted.

Deadlines

Deadlines are strict and non-negotiable. Late assignments will be accepted for the first five calendar days after a deadline. After that, I will remove 10% daily. Assignments may not be submitted after five calendar days have elapsed (Example - Deadline is September 8th, you cannot submit after September 13th)

Proper Attribution for Referenced Works

By nature, code is re-usable and extensible. It is both acceptable and encouraged to utilize and adapt examples of code; this is common on websites like StackOverflow. However, the sources for all referenced code must be given in your code commenting. I will assist students with finding code that is reusable (such as under the GNU license), and help with giving proper credit to the source.

Students with Disabilities

If any student requires assistance or academic accommodations for a disability, please contact me by after class, by e-mail, or during office hours. The student must have established eligibility for disability support services through the Office of Disability Services for Students.

For more information - https://studentaffairs.indiana.edu/disability-services-students/

Religious Holidays

It is the policy of Indiana University that instructors must reasonably accommodate students who want to observe their religious holidays at times when academic requirements conflict with those observances. This policy is intended to ensure that both faculty and students are fully aware of their rights and responsibilities in the accommodation of students' religious observances.

Source: http://enrollmentbulletin.indiana.edu/pages/relo.php

Syllabus

Our schedule will be followed more rigidly in the first half of the semester, and more loosely in the second half. Courses such as this one will have a wide array of students with varying strengths and weaknesses. Because this course is rich in content, the instructor reserves the right to amend this syllabus to better match the needs of a given class.

Schedule

Schedule is subject to change. A given class of students can differ widely in skills and teaching needs, so our schedule is likely to be looser in the second half of the semester.

	Dates	Activity
week 1	Mon 1/9 Wed 1/11	Set up IDEs. Intro to HTML
week 2	Mon 1/16	*Martin Luther King Day - No Class*
	Wed 1/18	HTML tags/elements and the DOM
week 3	Mon 1/23 Wed 1/25	HTML attributes. Intro to styling and CSS
week 4	Mon 1/30 Wed 2/1	Project 1 (HTML) due **Friday 2/3**
week 5	Mon 2/6 Wed 2/8	Stylesheets. CSS Box Model
week 6	Mon 2/13 Wed 2/15	Classes and IDs. CSS Selectors. CSS Transitions
week 7	Mon 2/20 Wed 2/22	Bootstrap, column and grid layouts, flexbox
week 8	Mon 2/27 Wed 3/1	Project 2 (Bootstrap+CSS) due **Friday 3/3**
week 9	Mon 3/6 Wed 3/8	JavaScript - Variables, statements, functions
	Sun 3/13 - Sun 3/19	*Spring Break*
week 10	Mon 3/20 Wed 3/22	Intro to JQuery. JS Arrays and Iteration
week 11	Mon 3/27 Wed 3/29	JS Objects
week 12	Mon 4/3 Wed 4/5	Project 3 (JS) due **Friday 4/7**
week 13	Mon 4/10 Wed 4/12	Introduction to p5.js. Begin presentations
week 14	Mon 4/17 Wed 4/19	p5.js - Push and Pop, Objects
week 15	Mon 4/17 Wed 4/19	Work on Project 4, more p5.js
week 16	Mon 4/24 Wed 4/26	Project 4 (Integration) due **Friday 4/28**
		This course will not meet for a final exam