

Website Design for HCI

Spring 2015

updated: March 29, 2015

Section: 901

Location: CDM Building, Room 801 at 243 S. Wabash

Meeting time: Mondays 5:45PM - 9:00PM

Section: 910

Location: On Line

Real-time access each Wednesday evening,
or view later in the week.

Catalog Description

"Web design introduced in a user-centered context. Application of visual design principles and common design patterns for web sites and mobile interfaces. Page markup using HTML and CSS addressing responsive web design, accessibility, and search engine optimization. **PREREQUISITE(S):** None"

Instructor's Riff on the Catalog Description

The key takeaways from the description, I think, are:

1. This course focuses on "**page markup in HTML and CSS**". We are not going to focus on a life cycle approach. We are not going to focus on visual design principles. We are not going to focus on server-side or client-side scripting. All that comes in other courses. We will stick to the meat and potatoes of learning markup and learning it well.
2. Web design is taught from a "**user-centered context**" as opposed to a **graphic design centered context**, or a **programmer centered context**. That is: when designing, we think about user needs, user intentions, and user experience. Design, rather than being an end to itself, exists as a tool to improve user experience. [Related manifesto: "**Design without context is just decoration.**"]
3. We are interested in "**design patterns**" taking a **pattern language approach** toward understanding these concepts of efficiency and reuse. [This presents itself via CSS Grid Systems and Frameworks (e.g. Twitter Bootstrap)]
4. We are interested in "**websites and mobile interface**" as we are interested in designing for multiple use contexts. This will lead us to **responsive design as a philosophical basis** for our solution.
5. We are interested in **page markup that is effective and maintainable**. This takes many forms: we want our markup to be clearly understood by future designers who may need to update or adapt it; we want our markup to be understood by search engines and other creepy crawlers within the semantic web. To these ends we will use **semantic design concepts** and adopt **good coding and documentation practices**, including coding toward standards, accessibility, and multiple user platforms.

Course Learning Objectives (Goals and Competencies)

We may not cover everything on this list, but it provides for us a framework for what we are trying to accomplish in this course. It informs what is inside and outside the scope of work in this course.

Goal A *The student should be able to articulate **semantic design concepts** and be able to employ these concepts to build multi-page websites.*

Primary

- Comp 1** Be able to articulate the concepts of semantic design
- Comp 2** Be able to use semantic design concepts when building websites
- Comp 3** Know or be able to find and use reference resources to effectively use HTML5 elements when building websites
- Comp 4** Know or be able to find and use reference resources to effectively use CSS2 and CSS3 selectors when building websites
- Comp 5** Be able to navigate the CSS cascading precedence model to appropriately scope the effect of CSS selectors
- Comp 6** Be able to use semantic elements and be able to separate semantic design from presentation design
- Comp 7** Be able to effectively use the CSS box model and float objects for page design
- Comp 8** Be able to find, evaluate, and use online resources to engage in post-course learning to remain current in semantic design practices

Secondary

- Comp 9** Be able to design webpages to maximize website accessibility
- Comp 10** Be able to design webpages to maximize SEO effectiveness

Goal B *The student should be able to articulate **responsive design concepts** and be able to use these concepts to build multi-page websites that gradually and elegantly scale for desktop use down to mobile use.*

Primary

- Comp 1** Be able to articulate the constructs of responsive design
- Comp 2** Know or be able to find and use reference resources to effectively deploy responsive design concepts when building websites
- Comp 3** Be able to find and use reference resources to use media queries and breakpoints
- Comp 4** Be able to create and manage responsive images
- Comp 5** Be able to use 'em's and '%s to size HTML elements
- Comp 6** Be able to find, evaluate, and use online resources to engage in post-course learning to remain current in responsive design practices

Secondary

- Comp 7** Be able to capture and use screen resolution, orientation, and pixel density
- Comp 8** Be able to hide content, with and without consuming space
- Comp 9** Be able to prioritize content by media

Goal C *The student should be able to deploy **CSS frameworks** and other state of art techniques for effective website design.*

Primary

- Comp 1** Be able to articulate the constructs of a CSS grid system and CSS framework
- Comp 2** Be able to design a multi-page website using a grid system or framework
- Comp 3** Be able to work effectively with both static and variable width grid systems
- Comp 4** Be able to find, evaluate, and use online resources to engage in post-course learning to remain current in state of the art website design practices

Secondary

- Comp 5** Be able to work with either the Bootstrap or Foundation framework (2013 competency--leading frameworks may change over time)
- Comp 6** Be able to design images using CSS sprites
- Comp 7** Be able to apply web fonts to a website
- Comp 8** Be able to troubleshoot a website for efficiency and speed, and understand the concepts behind a content delivery network
- Comp 9** Be able to work with a CSS preprocessor such as SASS or LESS (this competency is beyond the scope of our 10 week course, but would be included time permitting)

Goal D *The student should be able to articulate and demonstrate **best practice skills for staging, securing, and archiving a web development project.***

Primary

- Comp 1** Be able to code HTML and CSS in a plain text editor
- Comp 2** Be able to backup and restore a website development project
- Comp 3** Be able to test for HTML and CSS standards compliance
- Comp 4** Be able to find, evaluate, and use online resources to engage in post-course learning to remain current in website staging and management practices

Secondary

- Comp 5** Be able to use an industry standard WYSIWYG integrated development environment (IDE) such as Dreamweaver
- Comp 6** Be able to stage a website development project so that development and testing is not done on the production site
- Comp 7** Be able to manage a standard CPanel webhosting account

Notes on Teaching Philosophy

This section isn't gibberish to gloss over. It is probably the most important section of the syllabus.

The HCI 406 syllabus presumes enrolled students are beginning (or near beginning) HTML/CSS web design students. ***I teach this course as a beginner course.*** If your skills are beyond beginner, then you should not be taking the course.¹

I will assume that, because you are a graduate student who is embarking on a career (most of you in User Experience, HCI, or related) that strong, current web design skills are important to you. Therefore, I anticipate:

- You are not here to do as little as possible to get an acceptable passing grade.
- Rather, you are here because you genuinely want to learn as much as you can about HTML/CSS web design, given real world constraints on your time and life.
- That you will take a mature approach to the course and course materials.
- That you are interested in building community with your classmates as they are going to become your MS program mates for the next couple of years AND your career network following that.
- That you are intellectually curious about this material and will, given real world constraints, go beyond the minimal to learn as much as you can.

My approach to teaching this material recognizes that lecturing you for three hours once a week and then asking you to do an exercise will not be a sufficient or effective way to transfer knowledge to you.

My approach is based on the ***pedagogical philosophy of coaching*** you rather than teaching you--to support your own learning of the material. I will try to make resources available to you, and I will try to provide you with sufficient structure to guide your learning. I will be available to help you troubleshoot problems and explore solutions.

However, I expect you all to be pro-active in your own abilities to search out problem solutions among online resources and among your peers.

To this end, it is my goal to teach you how to learn web design, and to teach you how to keep that knowledge current on your own once you are out of school.

¹ If you are not a beginner, discuss this with me offline ASAP so we can determine if you are better placed out of 406 and into a different course this quarter.

Course Instructor

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Phone: 312.362.6103 Office²
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Facebook: www.facebook.com/dmittleman

Professional Background

I have been building websites since 1997 (my earliest ones now seem hideous.) I also build sites using CMS (primarily Joomla, sometimes WordPress). I've taught beginning web design 13 times prior to this quarter.

My primary research area is virtual collaboration. To that end I've built about a dozen platforms that support collaborative work.

Personal:

Check out my Facebook page to get a sense of what my three principal distractions are these days. You are welcome to friend me on [Facebook](#) or [LinkedIn](#) if you want to.⁴

How best to reach me?

Email: I am usually pretty good about responding to email, but I need to tell you that each of the last two quarters around week seven I hit a threshold and just couldn't keep up with everything coming in.

Telephone: I've found as I've gotten older that I'm much less of a phone person. My office phone is less preferred by me than text communication. And my Skype line is more preferred over my office phone (as I have headsets for Skype but not the DePaul number AND Skype permits you to send me a chat message if I don't answer the call.)

Office Hours: I will hold a office hours most Tuesdays and Thursdays at 1:20pm-2:15pm in CDM 801. And I am available before or after class on Mondays (if you make prior arrangements). For virtual advising, I suggest we arrange a mutually convenient time to talk via Skype. Email me to set this up.

² Voicemail at my office is not optimal as I may not see it for a while. But if you leave voicemail, know that the system has voice recognition and will try to transcribe what you said to text (which gets sent to my email). So talk slowly and clearly, especially your name as the software scrambles names very badly.

³ My policy about friending students on LinkedIn and Facebook is that I won't initiate it, but will accept if you initiate.

⁴ My personal policy is that I don't "friend" my students, but I always accept if they "friend" me. My Facebook page is open, though, so you can see my life without friending me if you prefer.

Other Ways to Get Help with the Course

D2L Discussion Forum: Post course content questions to the D2L forum so I can answer you and share the answer with the class [posting to the Board is better than emailing me as *someone else in the class might answer you before I do*--plus any answer I give is available to everyone];

CDM Tutors: CDM has tutors available that work out of the CDM 208 Tutoring Lab. There are five tutors who list HTML/CSS among their skill sets. Online students can contact a tutor and request to meet virtually.

Text and Readings and Viewings and Hosting

There are required and optional materials for this course.

Webhosting

You are required to have a standard CPanel webhosting account for this class. I've arranged for free student accounts at SiteGround, a well known and respected webhosting company. These accounts are not the cheap, slow, feature-poor, advertising infiltrated free accounts that you might have seen elsewhere. Rather they are identical (with one exception) to the standard SiteGround entry level shared hosting account that retails for \$10 a month (though almost no one pays that much as they always have sales going on.)

The one exception is a good one. With the paid account, you are REQUIRED to spend \$15 on a domain name (or transfer in one you already own). With the student account, the domain name is optional--you can acquire the account without it if you prefer. (Or acquire a domain name later if you decide to keep the account after the course.)

I will take you through the sign up process in class on January 7. But if you wish to explore this on your own, go to <http://www.siteground.com/DepaulUniversity>. Note that when you sign up for a free student account, you **MUST** use your DePaul email address as your contact as they use that address to validate you are a DePaul student. You **MUST** do this even if you otherwise do not use that address (which means you will want to forward that address to your regular one so you see emails coming in to it.)

If you already have a CPanel webhosting account elsewhere, you may use that account. But I'd much rather you acquire a SiteGround account for the class. Note:

1. You should use an account that runs standard CPanel software for account management;
2. You should use an account that you have 100% access to;
3. You should use an account for class that is **NOT** hosting a live production site.
4. If you use an account that belongs to someone else, you may be limited in permitting me access to help you troubleshoot issues;
5. My classroom examples will be at Siteground--another webhost may not have an identical look and feel.

Given the Siteground account is free, there is no reason not to use it. *[Discuss with me offline if you have major issues with this.]*

Video Tutorial

It has long been standard practice to assign required textbook materials in courses so students can do reading to supplement materials presented by the instructor. I am taking this standard practice online by requiring you to view a pre-selected set of video tutorials at Lynda.com.

I've selected Lynda.Com for several reasons:

1. Their video tutorials tend to be of high quality and good production values. The primary instructor of their HTML/CSS materials (James Williamson) is particularly good, I think;
2. **DePaul has a license so that you can view Lynda.com tutorials for free.**

Getting started at Lynda.com

Use the URL <http://offices.depaul.edu/is/services/technology-training/Pages/online-training.aspx> to access the DePaul gateway in to Lynda.com. It will validate you as a DePaul student with your Campus Connection information.

Optional and Required Textbooks

There are no textbooks required for purchase as it is possible to read five of the six below online via the DePaul Library. If you would like to read a print version (or wish to build a professional library), you may opt to purchase one or more anyway. Find the Library eBooks sites via our D2L menu.

HTML/CSS

- Terry Felke-Morris, ***Basics of WEB DESIGN***, 2nd Edition (2013). ISBN: 978-0133128918. \$77@Amazon. Excellent text, but pricey.
- Jennifer Niederst Robbins, ***Learning Web Design***, 4th Edition (2012). ISBN: 978-1449319274. \$34@Amazon. [Safari] Very good text, and available as an ebook. I will assign readings from this. If you decide to purchase, get 4th edition as earlier editions don't have current HTML5/CSS3 material.
- Jon Duckett, ***HTML&CSS*** (2011). ISBN: 978-1118008188. \$20@Amazon. [Safari, Books24x7] Great book for people who think like designers. Very visual. Nice book to have on your bookshelf as a reference. But anything I assign from it can be read via the ebook, so no purchase required.

Responsive Design

- Ethan Marcotte, ***Responsive Web Design*** (2011). ISBN: 978-0984442577. \$18@ABookApart.com. [Safari] This is the seminal book on responsive design. There is an updated second edition out now, but not yet on Safari (AFAIK).

Assignments and Grading

Labs:

0 Percent*

There will be labs exercises for most Modules. **It is expected you do these exercises and make them available for your classmates and me to see** (so we all know if you aren't doing them on time). **These labs will NOT be graded, but if you are not doing them I will have less sympathy when you have trouble on the Project Assignments.** Solutions will be provided as much as possible (some of the labs may be emergent with no existing solution available), and you will have access to other students' lab solutions to see how they did it. ***You are welcome to help each other with labs and share solutions.***

****Lab 1 is required. You will receive either a 0 or 1 on it. This score is folded into your attendance/321 Report score.***

Project Assignments:

55 Percent

There will be an assignment for most Modules, totaling 5 for the course. You will have, generally 8 to 12 days to complete a project. It will be due late evening at 11:59pm CDT on the announced due date. I don't go in to grade at midnight, so I can be flexible with the clock when it is due. But if you are missing the due date on assignments, I reserve the right to dock points from your work.

- Note that you will not actually be submitting HTML/CSS code; you will be posting it to your webhost account. So you are not restricted from continuing to refine it after the due date. Ergo, there is really no excuse for not having something out there at the due date.
- You will be asked to submit a short reflection document with each assignment to the D2L Dropbox. **That reflection MUST be submitted by deadline**, even if you code is still being refined.
- Any code submitted to the Dropbox or emailed to me will not be graded. You must post it to your webhost account USING THE NAME AND FOLDER LOCATION INDICATED IN THE ASSIGNMENT DOCUMENT.

There are 5 assignments, each worth 12 percent of your course grade. I reserve the right to increase/decrease the assignment count by one depending on the pace we cover course material. If the assignment count changes, the assignments will still total 55 percent of the course grade.

Quiz:

5 Percent

There will be one online D2L quiz (open book/note) during the course. The purposes of this quiz are:

- To give you a better sense of where your grade stands prior to the course withdrawal date.
- To give you a sense of what my exam multiple choice questions are like prior to the final (which is worth a lot more points)

Participation

5 Percent (plus)

In order to encourage active productive helpful peer discussion on the D2L forum, there is course credit associated with desired participative behaviors. It works like this:

- a. The grade book says that participation is worth 4 percent of your grade. You will get this 4 percent if [1] you actually occasionally participate online; and [2] you are not disruptive or destructive out there. Most everyone should get this 4 percent (except those who absolutely refuse to become part of our online community). This applies equally to both in class (201) and online (210) students.
- b. In order to encourage positive behaviors, I reserve the right to assign up to 2 percent more credit to those students who go beyond the norm to support their peers in the classroom and in this online community. While I do not expect all students to receive this credit, in this sense, the course is built out of 102% possible score.

How can you earn participation points?

- Contribute “found resources” such as websites and tutorial videos that may be helpful to other students trying to understand the course material. (Note: a list of links that you haven’t actually checked out yourself is not useful; links you have explored and present with enough annotation to describe the value provided by it may well be useful.)
- Provide useful and timely feedback and advice to other students as they ask questions about course materials and related topics.
- Providing examples of useful code related to the topic of the current module.

If you can help other students, you are providing real value.

I am not going to keep a running score for these extra points; I will go back through the discussions at the end of the course and make my evaluations. So I won’t be able to tell you how you are doing (at least not quantitatively.) But my advice about it is this: If you try to post stuff just to earn points, it is going to be obvious that is what you are doing--and you will annoy a lot of people along the way. If you decide to become an active and contributing member of our online community using the three bullets above as a guideline, then the participation credit will take care of itself.

Important!

The D2L Discussion Forums permit you to give posts and comments “thumbs up” ratings. I strongly encourage you to make use of this ratings system to help me evaluate who has been most helpful to you in the discussions in terms of providing guidance and insight.

Final Exam

30 Percent

The final exam will be given to 801 students in class on Wednesday, March 18. There will be a final exam window for 810 students of approximately March 16-18. Any 801 student who cannot make it to the final exam in class should immediately (tonight!) switch to the 810 section of the course as there will not be a provision for 801 students to take the exam at an alternate time (let me know that is why you are switching).

Online students may take the final exam in the classroom if they wish, and I encourage it if possible.

The final exam will consist of both multiple choice and HTML/CSS coding problems. The final exam will NOT be offered on D2L, but you will be permitted to use a computer for it.

Attendance and 321 Reports**5 Percent****Classroom Student Attendance**

Regular on-time attendance is expected from all registered classroom students. Each classroom student is permitted one absence (from April 6 on) without penalty. After the one permitted absence, two percent of the total course grade will be deduction for each absence (or significant late arrival/early departure). Or, classroom student may submit a 321 Report (see online students below) **once** during the quarter and no absence will be counted. [It is like Traffic School in that if you do it, the record of your absence is wiped.]

There may be a sign in sheet to be initialed at both the beginning and end of each class period.

Online Student 321 Reports

Online students are required, along with submission of each Project Assignment, to submit a short structured 321 Report reflection about the lecture, demonstration, or lab for that week's Module. Information on how to compose these reflections will be provided on D2L under Course Documents.. This 321 Report replaces the attendance component of the course grade.

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If that occurs, reasons for the change and options available to students will be thoroughly addressed on the course D2L site. Changes are not made lightly as this syllabus is considered a contract between instructor and student.

Tentative Schedule

Mar 30	Module 1:	<u>Overview</u> of the course, resources, webhosting
April 6	Module 2:	HTML5 Basics
April 13	Module 3:	CSS Basics
April 20	Module 4:	Images and Fonts
April 27	Module 5:	The Box Model
May 4	Module 6:	Page Layout
May 11	Module 7:	Responsive Design
May 18	Module 8:	More Advances CSS and CSS3
May 25	No Class	Memorial Day
Jun 1	Module 9:	Pseudo Techniques and other CSS Tricks
Jun 6-8	Exam	For Section 910 Students (online section)
Jun 8	Exam	For Section 901 Students (in the classroom) ⁵

I am tinkering with the order of topic preparation. I anticipate this topic schedule to change.

⁵ DePaul CDM does not support classroom students taking their final exam with the online students. Exam must be taken in the classroom. If you anticipate you may not be available for the classroom exam the evening of June 8, consider switching into the online section prior to the add/drop deadline. I am happy to have you attend class in the classroom each way anyway.

Course Withdrawal

Students who withdraw from the course do so by using the Campus Connection system (<http://campusconnect.depaul.edu>). Withdrawals processed via this system are effective the day on which they are made. Simply ceasing to attend, or notifying the instructor, or nonpayment of tuition, does not constitute an official withdrawal from class and will result in academic as well as financial penalty.

Excused Absence

In order to petition for an excused absence, students who miss class due to illness or significant personal circumstances should complete the Absence Notification process through the Dean of Students office. The form can be accessed at <http://studentaffairs.depaul.edu/dos/forms.html>. Students must submit supporting documentation alongside the form. The professor reserves the sole right whether to offer an excused absence and/or academic accommodations for an excused absence.

Incomplete and FX Grades:

Grades of Incomplete are given only in cases of medical emergency or other highly unusual emergency situations. Please note that University guidelines require that students must be earning a passing grade at the time one requests an incomplete grade. Students should have completed most of the course, with at most one or two major forms of evaluation missing. Incompletes revert to an F if they are not resolved within one quarter.

DePaul CDM policy is that all incompletes must be requested by the student using an online form. See CDM grading policies at <http://www.cdm.depaul.edu/Current%20Students/Pages/Grading-Policies.aspx>

Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at:

Student Center, LPC, Suite #370

Phone number: (773)325.1677

Fax: (773)325.3720

TTY: (773)325.7296

Academic Integrity:

University policies on academic integrity will be strictly adhered to. Violations of academic integrity, including (but not limited to): cheating; plagiarism; fabrication of data; and complicity, are not tolerated. It is expected and understood students are familiar with DePaul's Academic Integrity Policy. The Policy can be found at: <http://academicintegrity.depaul.edu/AcademicIntegrityPolicy.pdf>. It defines the violation terms used above and provides a complete statement about the rules.

Consult the Academic Integrity website for further guidance: <http://academicintegrity.depaul.edu/>

The university and CDM policy on plagiarism can be summarized as follows: Students in this course should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic F in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work any assignment which has been prepared by someone else. If you have any questions or doubts about what plagiarism entails or how to properly acknowledge source materials be sure to consult the instructor.

Online Course Evaluations

Instructor and course evaluations provide valuable feedback that can improve teaching and learning. The greater the level of participation, the more useful the results are. As students, you are in the unique position to view the instructor over time. Your comments about what works and what doesn't can help faculty build on the elements of the course that are strong and improve those that are weak. Isolated comments from students and instructors' peers may also be helpful, but evaluation results based on high response rates may be statistically reliable (believable).

As you experience this course and material, think about how your learning is impacted. Your honest opinions about your experience in and commitment to the course and your learning may help improve some components of the course for the next group of students. Positive comments also show the department chairs and college deans the commitment of instructors to the university and teaching evaluation results are one component used in annual performance reviews (including salary raises and promotion/tenure). The evaluation of the instructor and course provides you an opportunity to make your voice heard on an important issue – the quality of teaching at DePaul. Don't miss this opportunity to provide feedback!