

# Website Design for HCI

Spring 2016

*updated: March 28, 2016*

**Section: 901**

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

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

**Section: 910**

Location: On Line

## 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.

*See detailed course learning objectives in Appendix 1*

## Notes on Teaching Philosophy

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.<sup>1</sup>

### *Assumptions*

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) for which 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.

### *Approach*

My approach to teaching this material will be to provide you with a weekly set of reading, a three hour class consisting of lecture, demonstration, and Q&A, and a weekly lab assignment to help you exercise new skills.

However, for many of you this will not be sufficient to master the material. Additional "optional" material will be provided—but the onus is on your to read the extra readings or do the extra exercises when they are necessary for you.

Further, I am going to invite you to ask questions each week (in classroom, online, and during your weekly reflections). It is up to you to be proactive and ask questions when you are struggling. If you do not, I may not notice you need extra attention or help.

One of my teaching goals is to support you in learning how to teach yourself web design after this course ends. After all, the field is continually evolving. Tools and techniques that are cutting edge this year will be passe in two years and replaced in four. You will need to know how to stay current on your own. My approach will encourage you to learn from peers, to teach peers when you know something extra, and to mine online resources for what is current and what is coming.

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<sup>1</sup> 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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**Facebook:** [www.facebook.com/dmittleman](http://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 16 times prior to this quarter.<sup>4</sup>

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 stream to get a view of my three principal distractions these days. You are welcome to friend me on [Facebook](#) or [LinkedIn](#) if you want to.<sup>5</sup>

**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 office hours most Wednesdays in the afternoon. I am available to stay after class (with a little bit of advance warning) most every week. But each of you have very different

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<sup>2</sup> If you "friend" me on Skype, include a short note reminding me you are in this course. I keep my Skype ID wide open so students can find me and subsequently get a lot of presumably lonely women from around the world making contact requests of me. They are quickly deleted as spam—a note referencing the class will make sure I don't do that to you.

<sup>3</sup> 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.

<sup>4</sup> And I am continually amazed by how much new I learn each time I teach the course.

<sup>5</sup> My policy about friending students on LinkedIn and Facebook is that I won't initiate it, but will accept if you initiate.

time constraints, so the reality is: email me if you want to meet outside these times and we will find a time and place mutually convenient. I live in the NW suburbs, so can meet out that way on a Tuesday, Wednesday or Friday. Or we can meet virtually. For virtual advising, I suggest we arrange a mutually convenient time to talk via Skype.

## 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 three tutors who list HTML/CSS among their skill sets. Online students can contact a tutor and request to meet virtually.

## Materials Needed for the Course: WebHosting, Viewing, and Reading

### 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 good 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.)

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

I'll take you through the sign up process in class on March 28. 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.)

I'd rather you use this free SiteGround account even If you already have a CPanel webhosting account elsewhere. My reason for this is:

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.]*

### **Textbook**

The required text for this course is:



Terry Felke-Morris, **Basics of Web Design: HTML5 & CSS3, 3<sup>rd</sup> Edition**. ISBN: 978-0-13-397074-6.

This book is listed in the DePaul Bookstore at \$107.80 (new); \$80.85 (used), \$43.99 (digital rental). But note that on the national Barnes&Noble website the text is \$94.32 (new), and out of stock for rental (rats). As we are required at DePaul to direct you to Barnes&Noble, I can't tell you that the book might be less expensive (for purchase or rental) at Amazon. If you rent, make sure the due date is after the end of our course.

### ***Textbook FAQs***

**Do I have to have this book?** I will be assigning reading from it. If you have another book, you will have to map for yourself what you should be reading. Also, I am expecting a reflection each week related back to the assigned reading.

**Can I used the 1<sup>st</sup> or 2<sup>nd</sup> edition of the text?** I recommend against that as web design has evolved so much the past few years that the old editions are decidedly out of date.

**Can I share the book with someone else?** Sure. But the final exam is open book and I will not permit you to share a book (interact) during the exam. Also, if you share, you need to move the physical book between yourselves each week—and, perhaps, somehow have it as reference when you are coding. So think through the logistics before you do this.

**Can I use a different book?** Yes, but you will need to acquire the table of contents for this text (easy to do) and map reading assignments to your book of choice. If you go this route, note there are many e-books available for free via the DePaul Library website. You may wish to explore these e-books anyway as different books have different strengths.

**Can I get by using just reference materials on the web?** While web reference materials are great—and you definitely should use them, they are not the same thing as learning from a textbook. Use each for its optimal purpose.

**I learn visually, can I watch videos instead?** I am going to assign reading from the text, but if you are a visual learner who likes videos then you could supplement with video. Lynda.com produces excellent

videos I've previously assigned in this course. I recommend starting there as DePaul has a site license giving you free access. There are also other online tutorials (but video and exercise) that are listed as weblinks in the class D2L site.

### ***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. You may want to bookmark this URL.

## Assignments and Grading

### **Labs: 24 Percent\***

There will be labs exercises for each Weekly Module (through week 8). **It is required you complete these exercises and make them available for your classmates and me to see.** (and you are all encouraged to inspect each other's work for ideas). *Each lab is worth 3 percent of your course grade.* Grading will be very simple:

- Gold: Successfully completed (all or mostly right): 3 points
- Silver: Completed (but has a significant error or omission): 2 Points
- Bronze: Effort made (but has substantial errors or deficiencies): 1 Point
- Not Acceptable: (not submitted or materially problematic): 0 Points

I won't be able to provide detailed individual feedback on each lab submission, but will post my heavily commented solution as quickly as possible after the due date. You may peruse that code, and you may inspect the code of other students in the course.

Labs **MUST** be submitted on time to receive full credit. Late submissions may not be graded. *Each lab will also require a short Dropbox submission with a brief learning reflection and outstanding questions.* As a Dropbox entry is necessary for me to have a place to attach a grade, your lab will not be graded without the Dropbox submission.

### **Project Assignments: 30 Percent**

There will be two Project assignments in the course. *The two projects will total 30 percent of your course grade.*

You will generally have at least two weeks 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 there is always a grace period until morning. If your work is not present when I check in the morning, it may be docked 10 percent of the Project grade per day.

- a. 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.

- b. You will be asked to submit a short reflection document with each Project to the D2L Dropbox. **That reflection MUST be submitted by deadline**, even if you code is still being refined.
- c. 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**.

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**Exam: 28 Percent**

The final exam will be given in class on June 6. Online students will have a multi-day window from June 4 to 6 in which to take the exam. The exam will consist of both multiple choice and HTML/CSS coding evaluation. It will be proctored, but will be open book, open note, open Internet (for references—not same time communication). Online students will be able to arrange for a local proctor (within standard CDM limitations).

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**321 Reflection Reports 18 Percent**

All Students are required to complete a reflection about the weekly lecture and reading by the Sunday evening for reading assigned in association with a Monday evening class session. *Each report, while graded out of 6 points, is worth about 2 percent of your course grade.* This holds for all class sessions beginning with March 28, 2016. The objectives of this assignment are multi-fold:

1. To **structure and motivate your focus** on the assigned reading with sufficient attention to absorb at least some of the concepts;
2. To give you **guidance for personal reflection** about the learning experience (as personal reflection is an excellent method for achieving deeper understanding of new material and for integrating it into your working models of behavior);
3. To develop and **support your process toward life-long self-learning** of web design material in order for you to stay current once this course (and/or Master's program) is over; and
4. To **surface topical questions and issues that are confusing** and merit further discussion/explanation/demonstration in the classroom.

This assignment is a critical part of "lifelong learning skills", but I want to both minimize the amount of busy work you have to do to complete it and the amount of time it takes me to grade it, while at the same time maximizing the value of this assignment for both of us.

To kick this off, a 321 reflection is due on April 3 that covers just the March 28 class and reading assigned to be read for the April 4 class. The due dates are the same for in class and online students.

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**Participation 0 Percent (plus)**

While there is no course credit associated with online discussion forum participation, I value your contribution to the class community. Therefore, I reserve the right to positively impact a course grade if I believe an individual's contribution to the community merits doing so. [But don't contribute for the points—contribute because it is the right thing to do.]



***What do I mean by "contribution to the community"?***

- Provide useful and timely feedback and advice to other students as they ask questions about course materials and related topics. [***This is the most important thing you can do***]
- 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.)
- Providing examples of useful code related to the topic of the current module.
- Ask provoking thought questions (such as from Requirement 3b of the 321 Reflections).

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

***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.

## 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

<b>Class Date</b>	<b>D2L Week</b>	<b>Topic</b>
Mar 38	Week 1:	<u>Overview</u> , context, and web basics
Apr 4	Week 2:	Semantic HTML and accessibility
Apr 11	Week 3:	Presenting HTML with CSS
Apr 18	Week 4:	Images, colors, backgrounds, and menus
Apr 25	Week 5:	The CSS Box Model, leading toward page layout
May 2	Week 6:	Page Layout using a grid framework
May 9	Week 7:	Responsive Design and more with grid frameworks
May 16	Week 8:	Advanced selectors and pseudo-classes
May 23	Week 9:	Transforms, transitions, and other CSS Tricks
May 30	Week 10:	<b>No Class: Memorial Day</b>
Jun 6	<b>Exam</b>	For Section 901 Students (June 4-6 window for 910 students)

I am tinkering with the order of topic preparation. This topic schedule may change.



## 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!

## Appendix 1: 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