LIS650

Passive Web Site Architecture and Design

2010–04–27

See the course web site at http://openlib.org/home/krichel/courses/lis650p10s for the latest online version of this file.

Course Description
This course examines the construction of non-interactive web sites. Students learn what the web is. They learn how web sites work, how to build them, and how to build them well. This involves technical know-how, as well as design skills. The course covers both areas.
The course emphasizes the use of standard compliant XHTML 1.0 and CSS level 2.1. Standards compliance is an integral part of the composition process. Students are allowed whatever tool they wish to use to create their sites, but final project sites must be standards compliant. We use free validation tools to check standard compliance.
The course covers all of XHTML 1.0, except some features that the instructor considers minor, in the sense that they are rarely used and mainly a feature to prepare sites for accessibility issues. The course covers much of CSS 2.1. At the time of writing, this is a W3C proposed recommendation.
The course covers the issue of web site design as far as simple passive web sites are concerned. Discussion of design starts as soon as basic XHTML is covered, in parallel to the CSS material.

Course objectives
After taking this course students

- will be able to interact with a UNIX based server for storage and retrieval of pages,
- will understand some fundamental concepts of http,
- will understand some fundamental concepts of URIs
- will have a basic understanding of
- will have sufficient knowledge of XHTML in order to create simple standards-compliant pages;
- will have sufficient knowledge of CSS in order to create simple style sheets;
- will have a grounding in information architecture,web usability, and accessibility.

Prerequisites
There are no other formal prerequisites for this course. Students should have been using the web before. They should be able to use a Microsoft Windows computer, e.g. click on an icon to run a program, cut and paste between applications, and copy files from one location to another. Students should also be familiar with basic concepts of computer hardware and software, concepts like files, and memory. They should have a very basic understanding of the Internet. Everything that goes beyond that is explained in class or by personal tuition from the instructor. No prior knowledge of HTML and CSS is assumed.
Students are provided with free web space where they can design their own sites. This web space continues to be available after the course ends. In order to operate that web space students only need a computer with an Internet connection.

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Class structure
Each class has a lengthy presentation by the instructor. For some part of class time the students work directly with their computers under the supervision of the instructor. However, students are expected to do much of the work on their web site at home. Support via skype is available pretty much around the clock, i.e. unless the instructor is moving around or is asleep.

Class details
Here are some class details.

2010–01–19	16:45 to 18:35	introduction to the course and to the web
2010–01–26	16:45 to 18:35	communicating with the server
2010–02–02	16:45 to 18:35	XML nodes
2010–02–09	16:45 to 18:35	XML and HTML documents
2010–02–16	16:45 to 18:35	*no class*
2010–02–23	16:45 to 18:35	the HTML body
2010–03–02	16:45 to 18:35	the HTML head
2010–03–09	16:45 to 18:35	introduction to CSS
2010–03–16	16:45 to 18:35	HTML tables
2010–03–23	16:45 to 18:35	important CSS properties without positioning
2010–03–30	16:45 to 18:35	*no class*
2010–04–06	16:45 to 18:35	contents design
2010–04–13	16:45 to 18:35	CSS positioning
2010–04–20	16:45 to 18:35	CSS advanced selectors and site design
2010–04–27	16:45 to 18:35	accessibility

Slides for all classes are downloadable from the course web site. The slides on the course website are drafts until the time that the class is held.
There is a single file with all slideshttp://openlib.org/home/krichel/courses/lis650/slides/lis650_10s.pptx.

Readings
The technical specifications of HTML and CSS are on the web. XHTML 1.0 is defined in Group (2002). To understand it, you need to refer to the definition of HTML 4.01 in Raggett, Le Hors, and Jacobs (1999). CSS level 2 revision 1 is defined in Bos, Çelik, Hickson, and Lie (2004). http is defined in Fielding, Gettys, Mogul, Frystyk, Masinter, Leach, and Berners-Lee (1999). URLs are defined in Berners-Lee, Masinter, and McCahill (1994), but that definition was updated in Berners-Lee, Fielding, and Masinter (1998). MIME types are documented in IANA (2001). The documentation of Apache is online at http://www.apache.org.
If students want a textbook on HTML and CSS, they are spoiled for choice. However, students should be aware that most books teach the loose version of HTML and place much less of an emphasis on style sheets than the course contents does. This is a really LIS-style course with an emphasis on separation of contents and presentation.
Castro (2006) is a widely used and reasonably priced book for beginners. A book that the instructor likes a lot is Musciano and Bill (2002) . But it is expensive. A good, though outdated book on CSS is Bos and Lie (1999) . Another good book is on CSS is Meyer (2006) .
Some specialized web sites and wikis deal with web design. Among them are

- A List Apart at http://alistapart.com
- CSS-discuss wiki at http://css-discuss.incutio.com

- CSS Zen Garden at http://www.csszengarden.com

As far as the design of web sites is concerned, Krug (2005) and Nielsen (2000) are classic references. The most relevant contents of these books is covered in the course, but there are also bits and pieces from various web sites. Morville and Rosenfeld (2002) is a book on information architecture, but is so boring that is no longer covered. Other resources include Clark (2007), Lynch and Horton (2002), Horton (2006) and Zeldman (2005).
The following mailing lists may be worth subscribing to.

- Web4Lib at http://lists.webjunction.org/web4lib/ is a US-based list that deals with the relationship between libraries and the web.
- webdev is a digested announcement list for web development in academic institutions.
- css-discuss is a high-volume technical list for CSS.

Finally there a bunch of home-grown resourceshttp://openlib.org/home/krichel/courses/lis650.

Mailing list
There is a mailing list for the course at https://lists-1.liu.edu/mailman/listinfo/cwp-lis650-krichel. All students are encouraged to subscribe. As a rule, answers to email sent to the instructor are copied to the list. There are exceptions to this rule

- if the question writer requests the answer not to be posted;
- if the question is a purely private matter.

Assessment
Before each class except the first, there is a quiz on the issues covered in the previous class. The average of all the quiz results counts for 12/30 of the assessment. The worst performance in a quiz is discounted. On the third class meeting, the students hand in a one-page typed statement about the web site that they want to build. This statement should cover both the purpose of the web site and the site's architecture. The assessment of this statement counts for 2/30 of the grade.
On the twelfths meeting, students also hand in a web site assessment. This assessment should cover the web site of a LIS academic department in the US or abroad. The assessment should not aim to describe the web page, but assess its strength and weaknesses in terms of the usability criteria reviewed in the class meeting from the week before. The assessment should roughly be two typed pages long. If students don't like the first grade they get on the assessment are given a chance to improve it. The web site assessment counts for 3/30 of the course.
The remaining 17/30 are assessed through the student's ability to build a web site. The site must validate against the *strict* version of the XHTML 1.0 specification. The site must have a style sheet with the main presentational elements. The site should provide an information source about a topic, though it need not be comprehensive by any means. Students are recommended to develop the web site on behalf of some other person. That person may useful feedback on the site help to avoid creating something that is too designer-centered. The informational contents of the site should go beyond simple link collections or path finders. Personal web sites, such as for the student describing herself, are not allowed. However students may built a personal site for someone else. The total amount of information contained should roughly be equivalent to a conventional student essay. It has to be finalized one week after the last class. Assessment of the site follows a There is `published list of criteria`[1].

Students

References

Berners-Lee, Tim, Roy T. Fielding, and Larry Masinter (1998). Uniform Resource Identifiers (URI): Generic Syntax. RFC 2396 available at http://www.ietf.org/rfc/rfc2396.txt.

[1] /home/krichel/courses/lis650/doc/criteria.html

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Krug, Steve (2005). *DON'T MAKE ME THINK! A Common Sense Approach to Web Usability* (2nd ed.). New Riders.

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Morville, Robert and Louis Rosenfeld (2002). *Information Architecture for the World Wide Web*. O'Reilly. described at http://www.oreilly.com/catalog/infotecture2/.

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Nielsen, Jakob (2000). *Designing Web Usability: The practice of Simplicity*. New Riders.

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