

# LIS650

## Web Site Architecture and Design

2011-03-04

See the course web site at <http://openlib.org/home/krichel/courses/lis650b12s> for the latest online version of this file.

### Course Description

This course examines the construction of simple web sites where users navigate content that is stored in files on a server. 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 knowledge regarding good design. 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 to use whatever tool they wish to use to create their sites. The final project sites must be standards compliant. They use free validation tools to check standard compliance.

The course covers the most widely used parts of XHTML 1.0 and CSS 2 level 1. It does not generally cover accessibility issues.

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 understand the basic underpinnings of the Web;
- will be able to interact with a server for storage and retrieval of pages;
- 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 but effective style sheets;
- will be able to assess web pages using technical criteria, contents on the page, layout of contents.

The Palmer School Student Learning Objectives covered by the course are

- 2.E Students will build information systems and/or records used in such systems.

)

### Prerequisites

There are no other formal prerequisites for this course. Students should have some prior web use. 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 the idea of files and directories on a computer. They should also be able to use a web browser. Everything that goes beyond this 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.

### Instructor

Thomas Krichel

Palmer School of Library and Information Science  
C.W. Post Campus of Long Island University  
720 Northern Boulevard  
Brookville, NY 11548-1300  
krichel@openlib.org  
work phone: +1-(516)299-2843  
skype: thomaskrichel

### **Class structure**

Classes are held in the library building on Saturdays between 10:00 and 15:00. Between classes, support via the class mailing list will be available.

Each class has a presentation by the instructor. With the exception of the first class, the students work directly with their computers under the supervision of the instructor. However, students are expected to do some of the work on their web site at home.

### **Class details**

Here are some class details:

2012-01-21	10:00 to 15:00	Introduction to the course and to the world wide web
2012-01-28	10:00 to 15:00	XML and the HTML body
2012-02-04	10:00 to 15:00	HTML head, CSS introduction and HTML tables
2012-02-11	10:00 to 15:00	important CSS without positioning, page and contents design
2012-02-25	10:00 to 15:00	CSS positioning and site design
2012-03-03	10:00 to 15:00	an introduction to HTML5

The slides for the course can be downloaded at <http://openlib.org/home/krichel/courses/lis650b12s/>. To print the slides in Microsoft powerpoint, press control-p to print. Then in the "Full Page Slides" menu, choose "6 Slides Horizontal" and under "Grayscale" choose "Pure Black and White". In an older MS Powerpoint version, under "Print what" choose "Handouts", and under "Color/grayscale" choose "Pure Black and White".

### **Reading**

?) wins a lot of praise. It does not follow the same approach as the course. It is therefore a good complement.

### **Background readings**

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.

?) is a widely used and reasonably priced book. A book that the instructor likes a lot is ?), but it only covers HTML, not CSS. A good, though outdated book on CSS is ?). Another good book is on CSS is ?).

The technical specifications of HTML and CSS are on the web. XHTML 1.0 is defined in ?). To understand it, you need to refer to the definition of HTML 4.01 in ?). CSS level 2 revision 1 is defined in ?). http is defined in ?). URLs are defined in ?), but that definition was updated in ?). MIME types are documented in ?).

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, ?) and ?) are classic references. The most relevant contents of these books is covered in the course. ?) is a book on information architecture. Other resources include ?), ?), ?) and ?).

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.

Last, but by no means least, there is a bunch of home-grown resources at <http://dlib.info/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 and second, there is a quiz on the issues covered in the previous class. The average of all the quiz results counts for 5/17 of the assessment. The two worst quiz performances are discarded. 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 1/17 of the grade.

On the second to last class day, students also hand in a web site assessment. This assessment should cover the web site of an academic library and information science department in the US or abroad. Students should use the suggested departments list. The assessment should not aim to describe the web page. It should discuss the strength and weaknesses of the site in terms of the usability criteria reviewed in the class meeting from the week before. The assessment should roughly be 2000 words 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 4/17 of the course. There is a grading rubric for it at [http://openlib.org/home/krichel/courses/lis650/rubrics/web\\_site\\_assessment.html](http://openlib.org/home/krichel/courses/lis650/rubrics/web_site_assessment.html)

The remaining 7/17 are assessed through students' 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 provide useful feedback on the site 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 build a personal site for someone else. The total amount of information contained should be roughly equivalent to a conventional student essay. It has to be finalized one week after the last class. Assessment of the site follows a published list of criteria at <http://openlib.org/home/krichel/courses/lis650/doc/criteria.html>. There is a grading rubric for it at [http://openlib.org/home/krichel/courses/lis650/admin/final\\_web\\_site\\_rubric.xml](http://openlib.org/home/krichel/courses/lis650/admin/final_web_site_rubric.xml)

### **Students**

Christine Leddy  
 Donna Triolo  
 Dorothy Ramos-Williams  
 Robert Shields  
 Jaime McCurry  
 Keri Reiter  
 Jennifer Lasko  
 Judith Rabin Mastrangelo

Derek Adil  
 Stefanie Litke  
 Laurel Shifrin

## 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>.
- Berners-Lee, Tim, Larry Masinter, and Mark McCahill (1994). Uniform Resource Locators (URL). RFC 1738 available at <http://www.ietf.org/rfc/rfc1738.txt>.
- Bos, Bert, Tani k  elik, Ian Hickson, and H akon Wium Lie (2004). Cascading Style Sheets, level 2, revision 1. available at <http://www.w3.org/TR/CSS21>.
- Bos, Bert and H akon Wium Lie (1999). *Cascading Style Sheets: Designing for the Web* (1st ed.). Addison Wesley.
- Castro, Elizabeth (2006). *HTML, XHTML, and CSS, Sixth Edition: Visual QuickStart Guide*. Peachpit Press. described at <http://www.cookwood.com/html6ed/>.
- Clark, Joe (2007). 'Building Accessible Websites' serialization. available at <http://joeclark.org/book/sashay/serialization/>.
- Fielding, Roy T., James Gettys, Jeffrey C. Mogul, Henrik F. Frystyk, Larry Masinter, Paul J. Leach, and Tim Berners-Lee (1999). Hypertext Transfer Protocol – HTTP/1.1. RFC 2616 available at <http://www.ietf.org/rfc/rfc2616.pdf>.
- Freeman, Eric T and Elizabeth Freeman (2005). *Head First HTML with CSS and XHTML*. O'Reilly. available at <http://headfirstlabs.com/books/hfhtml/>.
- Group, W3C HTML Working (2002). XHTML 1.0 The Extensible HyperText Markup Language (Second Edition). W3C recommendation, available at <http://www.w3.org/TR/xhtml1/#html4>.
- Horton, Sarah (2006). Access by Design Online. available at [http://universalusability.com/access\\_by\\_design/](http://universalusability.com/access_by_design/).
- IANA (2001). Media Types. available at <http://www.iana.org/assignments/media-types/>.
- Krug, Steve (2005). *DON'T MAKE ME THINK! A Common Sense Approach to Web Usability* (2nd ed.). New Riders.
- Lynch, Patrick J. and Sarah Horton (2002). Web Style Guide: Basic Design Principles For Creating Web Sites. available at <http://www.webstyleguide.com/>.
- Meyer, Eric A. (2006). *Cascading Style Sheets: The Definitive Guide*. O'Reilly.
- Morville, Robert and Louis Rosenfeld (2002). *Information Architecture for the World Wide Web*. O'Reilly. described at <http://www.oreilly.com/catalog/infotecture2/>.
- Musciano, Chuck and Kennedy Bill (2002). *HTML and XHTML: The Definitive Guide, 5th Edition*. O'Reilly.
- Nielsen, Jakob (2000). *Designing Web Usability: The practice of Simplicity*. New Riders.
- Raggett, Dave, Arnaud Le Hors, and Ian Jacobs (1999). HTML 4.01 Specification. available at <http://www.w3.org/TR/html4/>.
- Zeldman, Jeffrey (2005). *Designing with Web Standards*. New Riders Press.