

# Web Design and Architecture

MASTERS IN LIBRARY AND INFORMATION SCIENCE

Western University

Course: LIS 9723B, Web Design and Architecture (Winter 2024 Online)

Lecturer: Mark Rayner

Contact: OWL Messenger strongly preferred. Otherwise, email:  
[marayner@uwo.ca](mailto:marayner@uwo.ca)

Time: Asynchronous; Optional Q&A Zoom: Wed., 1:30-2:30pm

Location: OWL, and Zoom for in-person consults (by appointment)

Websites: OWL & <http://instruct.uwo.ca/fim-lis/9723/>

## Description

In this online studio course, you will learn about web design and architecture at two levels. In our lectures we'll discuss the elements, theory and disciplines required to produce enterprise-level websites. In the lab we will use Brackets to code HTML5 and CSS. By the end of the course, you will be able to create a basic, static website. This specific practical work will further illuminate the deeper principles of web design and enrich your overall understanding of the web.

## Objectives

Web Design and Architecture has several objectives, most of which are captured under the program learning level objectives 1, 6 & 8. In addition to the primary goal of helping you acquire the basic skills you will need to produce a good website, you will learn about:

- ◆ information architecture
- ◆ communications planning
- ◆ navigation and search systems
- ◆ usability, UX & accessibility
- ◆ semantics, writing and typography for the web
- ◆ how to learn new software
- ◆ principles of ethical, user-centered design
- ◆ syntax of HTML5 and CSS
- ◆ understanding of file structures
- ◆ colour theory & Gestalt design principles

## Enrollment

Enrollment in this course is restricted to graduate students in the LIS program, as well as any student that has obtained special permission to enroll in this course from the course instructor as well as the Graduate Chair (or equivalent) from the student's home program.

## Evaluation

**Coding Tests** (15%) are online tests that will show you understand the basics of how file structure, HTML and CSS code works.

**Exercises** (15%) will be based on the number of exercises you have completed -- note, lessons and tutorials are not graded, only the exercises, listed on OWL under "Assessments". For the most part, these are pass/fail exercises (if you complete the exercise — even imperfectly — you get the points). However, they must be posted to your webpage by the deadline or you will not receive the points. So I urge you to

double-check to ensure that you can see the exercise on the web after you've completed and published the exercise. Please also include the URL in OWL.

**I've set the deadline for these to be March 17 (11:55pm), but I'd recommend finishing them week-by-week so you can keep up.**

### **Website Proposal (25%)**

Write a communications plan to address how you will reach your audience for a subject of your choosing. Design the architectural blueprints for the website, and create a detailed content map – what information needs to be available at what point on the site. Include the file structure with this map. Also, make some wireframes or mock-ups to show what you believe the site will look like. What design elements will best communicate your ideas? Consider the overall tone, colour, and layout. This is your best chance to get the site right – it should be fully planned before you begin creating it. Keep form and content in mind. Required elements:

- ◆ communications plan (one page is okay)
- ◆ architectural blueprint
- ◆ detailed content map, including file structure
- ◆ wireframes

To get a higher mark:

- ◆ other relevant materials such as content, mock-ups, graphic elements, color palette, SWOT analyses, brainstorming, scenarios, etc.

**Please submit as a single PDF.** You may refer to web pages for color palettes, images, etc.

**Due date: Feb. 25 (11:55pm)**

### **Website Production (45%)**

Produce the site that you have envisioned, proposed and designed. Keep everything that we have discussed in class in mind, but remember that we are focusing on creating original sites that are easy to use. The site will be a minimum of 15 web pages in size (separate static html files) and a maximum of 25 pages (you can build a bigger site, but I'll stop reading at 25 pages). There should be a minimum of 200 words per page (on average – some pages will be longer and some shorter). A complete marking criteria will be provided on OWL, but the following factors will weigh heavily in the final mark:

- ◆ originality and effectiveness of content (**NB: NO verbatim content from other sources!**)
- ◆ content that is written for the web
- ◆ download times
- ◆ ease of use
- ◆ browser compatibility
- ◆ persistent navigation & local navigation
- ◆ basic accessibility (alt tags) and good page title information
- ◆ sensible file structure and good semantics.

**Please submit your project URL on OWL.**

**Due date: Apr. 14 (11:55pm)**

## Lateness penalties and bonus marks:

I've set all your deadlines for Sundays at 11:55pm. If you need some extra time to complete assignments, that's usually not a problem, but please ask me well before the due date. For Website Production, sites cannot be accepted after the 17<sup>th</sup> without arranging an INC. **There is a 10% bonus if you can submit your final project site by March 31 at 11:55pm!**

## Readings:

The *Information Architecture* text is on reserve in the GRC, and the rest of the readings are on OWL, or available online.

Information Architecture for the World Wide Web, 3/e (IA)

By Louis Rosenfeld, Peter Morville

O'Reilly & Associates; ISBN: 0596000359

*Optional:*

Don't Make Me Think: Common Sense Approach to Web Usability, 3/e (Think)

By: Steve Krug, Roger Black

New Riders; ISBN: 0321344758

Note: I highly recommend you get a copy of this book – it's tremendous fun, easy to read, and the best book on usability you will find.

## Schedule

### Week 1

- Elements of the web (lecture)
- How HTML works (Lecture, Brackets)
- Writing Basic HTML (Brackets)
- Using FTP (FileZilla)
- How to critiquing a website (lecture)

Readings:

Understanding File Structure (OWL)

Exercise 1: Create and personalize your homepage

### Week 2

- Usability & UX (Lecture)
- Critique a site for usability (Lecture)
- Semantic HTML (Lecture, Brackets)
- Semantic Tagging (Brackets)
- Images, Relative Linking & Jump Links (Brackets)

Readings:

*Information Architecture*, chap. 3-4

*Don't Make Me Think*, chap. 11

Exercise 2: Semantic Tags

### Week 3

- Conceptual Design Process (Lecture, handouts)
- How CSS works (Brackets)
- Writing CSS (Brackets)
- Lines, Colors, Fonts, Background Images (Brackets)

Readings:

*Don't Make Me Think*, chap. 7

*Information Architecture*, chap. 5-7

Exercise 3: Emulate a layout

## Week 4

- Using CSS to create basic layouts (Brackets)
- Writing for the web (Lecture)
- Web typography (Brackets)

Readings:

["Reading revolutions: Online digital text and implications for reading in academe."](#) *First Monday*

["The Reading Brain in the Digital Age: The Science of Paper vs Screens."](#)  
*Scientific American*

Exercise 4: Create a two-column layout

Exercise 5: Scannable text with original typography

## Week 5

- Navigation (Lecture)
- Floats & clearing floats (Brackets)
- Logos & image floating (Brackets)
- Linking Styles (Brackets)
- Compound CSS (Brackets)
- Rounded edges, drop shadows, CSS3 (Brackets)

Readings:

*Information Architecture*, chap. 8

Quiz: HTML & CSS

Exercise 6: Create an original three-column layout

Exercise 7: Robot Uprising

## Week 6

- The Search Engines (lecture)
- File Structure (lecture/review)
- Externalizing CSS (Brackets)
- CSS style organization (Brackets)
- Horizontal menu (Brackets)

Readings:

*Information Architecture*, chap. 9-10

Exercise 8: Big Red Dot

## Reading Week

## Week 7

- Drop Down Menu (Brackets)
- Using Dreamweaver's Templates (Dreamweaver)
- Suggestions for easiest building in Brackets (Brackets and Finder/Explorer)

Quiz: Relative Linking

Exercise 9: Excelsior Designs Mini-Site

## Week 8

- Color, Perception and Image Compression (Lecture)
- Creating Images (Canva – online tool)
- Compressing Images (Online tools)

Readings:

[Gestalt Principles: How Your Designs Are Perceived](#), *vanseodesign.com*

Exercise 10: Hybrid Image

## Week 9

- Accessibility (Lecture)
- Accessible Dropdowns (Brackets)

Readings:

[Introduction to Web Accessibility](#)  
(Webaim.org)

## Week 10 – Bonus (optional) tutorials

- Responsive Design (Brackets)
- Responsive Images (Brackets)

## Final Weeks – work time

## **Land Acknowledgement**

Western University is situated on the traditional territories of the *Anishinaabeg*, *Haudenosaunee*, *Lunaapeewak* and *Attawandaron* peoples who have longstanding relationships to the land and region of southwestern Ontario and the City of London. The local First Nation communities of this area include Chippewas of the Thames First Nation, Oneida Nation of the Thames, and Munsee Delaware Nation. In the region, there are eleven First Nation communities and a growing Indigenous urban population. Western values the significant historical and contemporary contributions of local and regional First Nations and all of the Original peoples of Turtle Island (North America).

# Notes from the Dean's Office

## **Health/Wellness Services**

Students who are in emotional/mental distress should refer to Mental Health@Western <http://www.uwo.ca/uwocom/mentalhealth/> for a complete list of options about how to obtain help.

## **Accessible Education Western (AEW)**

Western is committed to achieving barrier-free accessibility for all its members, including graduate students. As part of this commitment, Western provides a variety of services devoted to promoting, advocating, and accommodating persons with disabilities in their respective graduate program.

Graduate students with disabilities (for example, chronic illnesses, mental health conditions, mobility impairments) are strongly encouraged to register with Accessible Education Western (AEW), a confidential service designed to support graduate and undergraduate students through their academic program. With the appropriate documentation, the student will work with both AEW and their graduate programs (normally their Graduate Chair and/or Course instructor) to ensure that appropriate academic accommodations to program requirements are arranged. These accommodations include individual counselling, alternative formatted literature, accessible campus transportation, learning strategy instruction, writing exams and assistive technology instruction.

## **Statement on Academic Offences**

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/scholastic\\_discipline\\_grad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf)