Course Syllabus
CP 202 Website Design
Computer Science, Faculty of Science, Waterloo
Fall 2019

Instructor Information
Jose Sandoval
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Weekly office hours: Tuesday/Thursday 2:30 PM - 3:30 PM (by appointment, if needed)

Course Information
This course provides an in depth understanding of website design and administration, short of server-side programming. Emphasis is on standards, good design practices, accessibility, and tools. By the end of the course students should have the skills to administer a website, deal with security issues, design readable, informative, attractive and accessible web pages that fit current standards, and apply a logical and consistent navigational scheme to an entire website.

Pre-requisites: CP102 or CP104

Exclusions: Registration in BA or BSc programs in computing

Course location: Bricker Academic Building - BA101

Meeting times: Tuesday/Thursday 11:30 AM - 12:50 PM

Course Overview and Approach
The World Wide Web is significantly influencing our daily activities, including information exchange, online social interaction, and ecommerce. Visibly attractive, intuitive, and interactive website design is essential for the future success of the web. This course lays the foundation of creating well organized, visually attractive websites using industry-standard web development technologies. The course focuses on separation of web content from visual representation using HTML, CSS, and JavaScript standards, as well as creating meaningful websites for effective information presentation, accessibility, and security. The course material will cover the basics of client side programming using JavaScript and JQuery.

Course Goals and Learning Outcomes
By the end of this course students should be able to:
- Design, develop, and administer a website
- Deal with basic web security issues
- Apply a logical and consistent navigational scheme to an entire website

Course Tools and Learning Materials
Text Book: *Web Development and Design Foundations with HTML5 (9th edition)* by Terry Felke-Morris (electronic version: claim is you are saving 90% of the cost).
Supplementary materials: presentations and hands-on in class demonstrations.
Open source tools: GIT, Slack

Student Evaluation

Assessment	Weight	Due Date
Quizzes (2 x 5%)	10%	W3
Assignment 1	5%	W5
Assignment 2	5%	W6
Assignment 3	10%	W9
Assignment 4	10%	W13
Midterm	25%	W7
Final Exam	35%	Scheduled by University
Total	100%	

Learning Activities, Assignments, Tests, Quizzes, and Examinations

There are two short in-class quizzes and four assignments in this course. The quizzes are worth 5% each; assignments 1 and 2 are worth 5% each and assignments 3 and 4 are worth 10% each. Learning goals and outcomes for each assignment are outlined below:

- **Assignment 1** is focused on formatting and representing web content using HTML constructs. Students will apply their HTML skills of text formatting, special characters, lists, images and links. Correctness of the HTML code will be validated by an online validator.
- **Assignment 2** revolves around the concept of separating web content from formatting/style using CSS. Students will create visually appealing web pages using their HTML and CSS skills. Proper use of CSS rules, selectors, and properties will be tested.
- **Assignment 3** challenges students with page layout, navigation skills and responsive design. Students will create a small static website consisting of a few pages, with tractable navigation between the pages. Students are also expected to make the website suitable for rendering on both mobile devices and desktop browsers.
- **Assignment 4** uses all building blocks studied so far to create a website (using an open source web framework) revolving around a brand or a business, implementing an effective UI to accomplish a specific goal. This assignment will emphasize client side scripting for form validation, user interaction, and asynchronous content loading using JavaScript and JQuery.

Evaluation criteria and submission guidelines will be posted in MyLearningSpace with each assignment as they come out. In general, both technical and aesthetic aspects of the deliverable will contribute to the assignment score. Assignment submission should include the following components:
- A cover page with student and assignment information
- Screenshot of the final output (if needed)
- Source code with inline comments as necessary

- A brief summary on lessons learned and challenges faced. The summary should not exceed 1 page and should be in bullet format.

Weekly Schedule(s) (lecture, lab, seminars, tutorials, etc.)

Week	Date	Topic	Evaluation	Reading
1	Sept 5	Introduction: the internet and the web		Ch 1
2	Sept 10	Website development lifecycle and introduction to HTML		Ch 2
	Sept 12	HTML5, tools (IDEs), and deployment strategies		
3	Sept 17	CSS rules, CSS selectors, color, validation		Ch 3
	Sept 19	Tables, visual elements, graphics, multimedia	Assignment 1	Ch 4, Ch 8
4	Sept 24	Page layout		Ch 6
	Sept 26	Responsive web design		Ch 7
5	Oct 1	Effective UI and UX		Ch 5
	Oct 3	Mobile development	Quiz 1	Ch 7.5
6	Oct 8	Web design frameworks: Bootstrap		
	Oct 10	More about frameworks	Assignment 2	
	Oct 15, Oct 17	Reading week		
7	Oct 22	Web forms	Midterm	Ch 9
	Oct 24	JavaScript basics		Ch 14
8	Oct 29	Using JQuery		Ch 14
	Oct 31	Web services: RESTful calls, JSON		
9	Nov 5	Interactive web applications: embedding APIs		Ch 11, 13.10
	Nov 7	Web design considerations: requirements, development	Assignment 3	Ch 5
10	Nov 12	Large scale web development (roles, deployment, DNS, web servers, code repositories, etc.)		Ch 10
	Nov 14	Web security		Ch 12.6
11	Nov 19	OAuth: FB, Twitter authorization		
	Nov 21	Bootstrap revisited	Quiz 2	
12	Nov 26	Accessibility		Ch 5.4
	Nov 28	WordPress and the cloud		
13	Dec 3	SEO, and advanced topics	Assignment 4	Ch 13

University and Course Policies

1. **Academic Calendars:** Students are encouraged to review the Academic Calendar for information regarding all important dates, deadlines, and services available on campus.

2. **Special Needs:** Students with disabilities or special needs are advised to contact Laurier's Accessible Learning Centre for information regarding its services and resources.

3. **Plagiarism:** Wilfrid Laurier University uses software that can check for plagiarism. If requested to do so by the instructor, students are required to submit their written work in electronic form and have it checked for plagiarism.

4. **Academic Integrity:** Laurier is committed to a culture of integrity within and beyond the classroom. This culture values trustworthiness (i.e., honesty, integrity, reliability), fairness, caring, respect, responsibility and citizenship. Together, we have a shared responsibility to uphold this culture in our academic and nonacademic behaviour. The University has a defined policy with respect to academic misconduct. As a Laurier student you are responsible for familiarizing yourself with this policy and the accompanying penalty guidelines, some of which may appear on your transcript if there is a finding of misconduct. The relevant policy can be found at Laurier's academic integrity website along with resources to educate and support you in upholding a culture of integrity. Ignorance is not a defense.

5. **Classroom Use of Electronic Devices:** Students are allowed to use their personal devices in the classroom only for practicing the hands-on along the lecture. Any other use of the devices is not allowed in class as per Policy 9.3. Personal devices will not be allowed during quizzes, midterms and final exams.

6. **Late Assignment Policy:** There will be a 10% penalty on assignment mark if the submission is with 2 days of the due date. Any submission beyond 2 days will be face 25% penalty. In special circumstances, if a student misses a submission deadline, (s)he has to notify the instructor in writing with proper documents of proof, in order to avoid the penalty.

7. **Final Examinations:** Students are strongly urged not to make any commitments (i.e., vacation) during the examination period. Students are required to be available for examinations during the examination periods of all terms in which they register. Refer to the Handbook on Undergraduate Course Management for more information.

8. **Foot Patrol, the Wellness Centre, and the Student Food Bank:** The University approved the inclusion of information about select wellness and safety services and supports on campus in the course information provided to students. (Approved by Senate November 28, 2011.) Specific language (by campus) is provided below.

Multi-campus Resource

- Good2Talk is a postsecondary school helpline that provides free, professional and confidential counselling support for students in Ontario. Call 1-866-925-5454 or through 2-1-1. Available 24-7.

Kitchener/Waterloo Resources

- **Waterloo Student Food Bank:** All students are eligible to use this service to ensure they're eating healthy when overwhelmed, stressed or financially strained. Anonymously request a package online 24-7. All dietary restrictions accommodated.

- **Waterloo Foot Patrol:** 519.886.FOOT (3668). A volunteer operated safe-walk program, available Fall and Winter daily from 6:30 pm to 3 am. Teams of two are assigned to escort students to and from campus by foot or by van.

- **Waterloo Student Wellness Centre:** 519-884-0710, x3146. The Centre supports the physical, emotional, and mental health needs of students. Located on the 2nd floor of the Student Services Building, booked and same-day appointments are available Mondays and Wednesdays from 8:30 am to 7:30 pm, and Tuesdays, Thursdays and Fridays from 8:30 am to 4:15 pm. Contact the Centre at x3146, wellness@wlu.ca or @LaurierWellness. After hours crisis support available 24/7. Call 1-844-437-3247 (HERE247).

Brantford Resources

- **Brantford Student Food Bank:** All students are eligible to use this service to ensure they're eating healthy when overwhelmed, stressed or financially strained. Anonymously request a package online 24-7. All dietary restrictions accommodated.

- **Brantford Foot Patrol:** 519-751-PTRL (7875). A volunteer operated safe-walk program, available Fall and Winter, Monday through Thursday from 6:30 pm to 1 am; Friday through Sunday 6:30 pm to 11 pm. Teams of two are assigned to escort students to and from campus by foot or by van.

- **Brantford Wellness Centre:** 519-756-8228, x5803. Students have access to support for all their physical, emotional, and mental health needs at the Wellness Centre. Location: Student Centre, 2nd floor. Hours: 8:30 am to 4:15 pm Monday through Friday. After hours crisis support available 24/7. Call 1-884-437-3247 (HERE247).