GBDA 228
Digital Imaging
of Online Applications

Winter Term 2019 University of Waterloo, Stratford Campus Global Business and Digital Arts

## Syllabus

Class schedule

Section 1: Tuesdays 9:00 am – 11:50 am Section 2: Tuesdays 1:00 pm – 3:50 pm

# **Description**

In this course, students are introduced to digital tools through a series of exercises and assignments that cultivate both artistic expression and technical skill. This course focuses on two primary aspects. First, students will develop a critical understanding of design, layout, typography, colour theory, and content accessibility for the purpose of Web Design and App Design. Second, students will learn how to build basic websites using HMTL & CSS. Note that this is a studio design course, not a CS course, and its primary focus will be placed 50/50 on design and introductory front-end web development concepts using HTML & CSS.

#### Contact

Instructor: Greg J. Smith

Office Location: RM 2018, Stratford Campus Office Hours: Video chat by appointment

Email: g28smith@uwaterloo.ca

Skills Workshop instructors:

Annaka Willemsen, awillemsen@uwaterloo.ca

Greg McIntyre, greg.mcintyre@uwaterloo.ca

**Teaching Assistants:** 

Emilia Lilek, eelilek@edu.uwaterloo.ca (Section 1) Angela Le, a38le@edu.uwaterloo.ca (Section 2)

#### **Objectives**

By the end of the course, students will be able to:

- 1. build basic websites using HTML and CSS.
- 2. demonstrate the ability to work together in a design team environment.
- 3. understand and employ all aspects of the design process in projects.
- 4. be familiar with different design theories and terminology.
- 5. develop a critical eye in relation to the critique, creation, and execution of design and digital media.
- 6. demonstrate proficient knowledge and usage of the tools necessary for web development.
- 7. develop working prototypes for websites and mobile apps.

#### **Textbook**

HTML and CSS: Design and Build Websites, by Jon Duckett | ISBN: 978-1-118-00818-8

## **Recommended Readings and Resources**

A recommended reading list and resources are available on LEARN for those who are interested to further hone their theoretical and practical understanding of web design and development. Many of the recommended books and resources are available online or at the university and public libraries.

# **Attendance and Participation**

Students are expected to attend all classes. Participation and attendance are assessed based on attendance for the duration of the term, participation in class discussions, project critiques, project presentations, class activities, and labs.

#### **Evaluations**

Some assignments will be done as individuals, others as a team and as individuals. However, all grades will be assessed on an individual basis.

Attendance and Participation: 10%

In-Class Labs: 8% (1% ea. X 8 best of 9)

Website Redesign and Development Project: 35% (group and individual deliverables)

Phase 1 (team component): 10%

Strategic analysis and site map

Phase 2 (individual component) 10%:

Wireframes and user interface design

Phase 3 (team component): 15%

Website implementation and documentation

Final Presentation: 7%

Assignment 1 – HTML: 10%

Assignment 2 – CSS: 10%

Course Reader Quiz 10% (5% ea. x 2)

Peer Evaluations: 10% (5% ea. X 2)

### **Projects**

The term projects will consist of two individual assignments and one large ongoing project with specific deliverables due according to the course schedule. Details about the projects can be found on LEARN.

The Web Redesign and Development project will be done in part in teams and in part independently. Students are responsible for organizing and managing their teams. Assignments 1 and 2 must be completed independently.

## **Project Extensions and Lateness Policy**

*Team deliverables*: A flexible deadline extension of 48-hours will be available to each team. You may use it for one 48-hour extension on either of the Website Redesign & Development project during Phase 1 or 3, or split it between the two Phases. Using a group extension will apply the extension to all group members.

*Individual deliverables:* A flexible deadline extension of 48-hours will be available to each student. You may use it for one 48-hour extension on one individual assignment or two 24-hour extensions split between two individual assignments of your choice (A1 or A2).

Details about the policy will be provided in class. Once the extensions are used up for the team and individual deliverables, projects handed in late will be penalized by a deduction of 10% per 24 hour period, or part thereof, out of the final mark received on the assignments.

#### In-Class Labs

There are 9 in-class labs that supplement the lecture content. Each lab includes a set of hands-on exercises that primarily focus on the application of coding concepts introduced in the lectures. During the lab sessions, students must work on the assigned exercises provided. You are <u>not</u> expected to complete all exercises, though you must complete some (the minimum number will depend on that week's exercises). Your best 8/9 labs will be counted towards your final grade.

The TA will assign you a grade at the end of each lab. Grading is at their discretion and is not negotiable.

For each lab, students get one point (1% of your final grade) if:

- you work on the exercises during the entire session
- you complete at least some of the work

For each lab, students get zero if:

- you are absent for any reason
- you do other work during the session
- you do not complete any of the work
- you are loud and/or disruptive and interfere with the ability of others to work and concentrate

## **Skills Workshop**

There are 9 optional weekly open lab sessions outside of class. Each session will be available *if there is sufficient interest*; if 4 students or more sign up (via email: awillemsen@uwaterloo.ca) more than 24 hours in advance a 1.5 hour lab session (complementary to current lecture in-class exercise content) will be held on Wed night (6:30-8:00) pm in EV3 1408 (Main campus).

# **Tentative Course Schedule**

This is a tentative timeline. The content of the lectures and order may change based on class progress and interest.

W k	Date	Topic	Readings	Assignments and Due Dates
1	Jan. 8	Class introduction Lecture: Web basics	No readings	Web Redesign project introduced and assigned.
2	Jan. 15	Lecture: Intro to HTML & CSS; Lab 1: HTML and CSS structure	Ch.1: Structure Ch.2: Text (HTML) Ch.3: Lists Ch.4: Links Ch.8: Extra Markup Ch.10: Introducing CSS	Weekly Skills Workshops start on main campus / teams formed, web redesign project outreach begins
3	Jan. 22	Lecture: Web design; CSS Layout Lab 2: Positioning content	Ch.18: Process & Design Ch.13: Boxes Ch.15: Layout	
4	Jan. 29	Lecture: Typography & Colour Lab 3: Formatting text and Specifying colours Quiz 1 (weeks 2, 3, 4 readings)	Ch.12: Text (CSS) Ch.11: Colour	
5	Feb. 5	Lecture: Web graphics, media, and optimization Lab 4: Optimizing images in Photoshop; adding/formatting media with HTML & CSS	Ch.5: Images (HTML) Ch.9: Video & Audio Ch.16: Images (CSS)	Website Redesign Phase 1 due
6	Feb. 12	Lecture: Visual design for usability; Tables and forms Lab 5: Table and form elements Mid-course evaluation	Ch.6: Tables (HTML) Ch.7: Forms (HTML) Ch.14: Tables & Forms (CSS)	Assignment 1 due
7	Feb. 19	READING WEEK	No readings	
8	Feb. 26	Lecture: Menus and Navigation Bars, and other tips Lab 6: Rollover menus	Ch.12 (289-292) Ch.13 (321-322) Ch.16 (417-418) Ch.17: HTML5 Layout	
9	Mar. 5	Website Redesign Project Workshop	No readings	Website Redesign Phase 2 due

Quiz 2 (weeks 5, 6, 8 readings)

10	Mar. 12	Lecture: App design	UI Design Do's and Don'ts	Assignment 2 due
		Lab 7: Prototyping with InVision	(https://developer.apple.com	
			/design/tips)	
11	Mar. 19	Lecture: Responsive web design	https://www.w3schools.com	
		Lab 8: Responsive design with	/html/html_responsive.asp	
		Media Queries		
12	Mar. 26	Lecture: SEO and Analytics	Ch19: Practical Information	
		Lab 9: TBA		
13	Apr. 2	Last day of class;		Website Redesign
		Web project presentations		Phase 3 due and final
				presentations due

### **Notes on Avoidance of Academic Offenses**

**Academic Integrity:** In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect, and responsibility. Check <a href="https://www.uwaterloo.ca/academicintegrity">www.uwaterloo.ca/academicintegrity</a> for more information.

**Grievance:** A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4, <a href="www.adm.uwaterloo.ca/infosec/Policies/policy70.htm">www.adm.uwaterloo.ca/infosec/Policies/policy70.htm</a>. When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

**Discipline:** A student is expected to know what constitutes academic integrity (check <a href="https://www.uwaterloo.ca/academicintegrity">www.uwaterloo.ca/academicintegrity</a>) to avoid committing an academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Discipline, <a href="https://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm">www.adm.uwaterloo.ca/infosec/Policies/policy71.htm</a>. For typical penalties check Guidelines for the Assessment of Penalties, <a href="https://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm">www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm</a>.

**Appeals:** A decision made or penalty imposed under Policy 70 (Student Petitions and Grievances) (other than a petition) or Policy 71 (Student Discipline) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals) <a href="https://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm">www.adm.uwaterloo.ca/infosec/Policies/policy72.htm</a>

# A Note for Students with Disabilities

The Office for persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations, please register with the OPD at the beginning of each academic term.