WEB SYSTEM DESIGN & MANAGEMENT

COURSE DETAILS

Course Code: INFS 634 (WINTER 2023)
Credits: 3
Class timings: 8:30 AM - 11:25 AM, FRIDAYS (JAN 6TH - APRIL 13TH, 2023)
CRN: 7032
Location: EDUC 627

Formal Description:
Information Studies: Principles and practices of designing websites in the context of libraries and information centers, focusing on a conceptual approach to organizing information for the world wide web including design, implementation and management issues. Topics include web development tools, markup languages, internet security and web server administration.

What to expect?
In this Web Design course, students will use a variety of web-design & development software to organize, create, publish, and manage websites. At the end of this course, you will be able to:

1. Understand web-design principles, including user-centered design approach to developing websites for your perspective clients.
2. Understand best practices in web-design and web-programming. How to create accessible design, web-design kits, prototypes etc.
3. Develop skills in various software/tools used for web-development including collaborative tools such as Github, Figma for design, Canva, code editors etc.
4. Learn how to create responsive websites using HTML, CSS and bootstrap framework for web-development.
5. Create & maintain servers to host dynamic web-pages using PHP and databases. Understand shared web-hosting, security and management.

INSTRUCTOR DETAILS

Kartikay Chadha
Email: kartikay.chadha@mcgill.ca
Please start the subject line of all your emails with "[INFS 634]"

Office Hours: https://calendly.com/kartikaychadha/openhours
Book any open slot **ONLY** on **Wednesdays** (via Zoom) or **Fridays** (In-person).

RECOMMENDED READINGS & RESOURCES

Duckett, Jon (2011). HTML & CSS: Design and Build Websites. Indianapolis, IN: John Wiley & Sons.
  http://mcgill.worldcat.org/oclc/796829490 OR https://wtf.tw/ref/duckett.pdf

Vaswani, V. (2021). PHP A Beginner's Guide.
  http://englishonlineclub.com/pdf/PHP%20-%20A%20Beginner%E2%80%99s%20Guide%20[EnglishOnline
  Club.com].pdf

**There are many excellent freely available online tutorials. The text books will only be used as reference to learn and implement web programming syntax. Students will be expected to refer to manuals published for using development tools/software.

Additional details will be posted on MyCourses under Content section.

HTML Tutorial: https://www.w3schools.com/html/
CSS Tutorial: https://www.w3schools.com/css/default.asp

Community Forum for developers: https://stackoverflow.com/
Stackoverflow is a very useful online platform to find solutions to computer programming questions. You can search Stackoverflow for questions related to syntax, algorithms, methods etc.

INSTRUCTIONAL METHODS

This course will implement a project based learning to provide an experience of working as a web-designer. Students will choose to either develop a website individually or work in groups of not more than 3 students. The scope of the project will depend on the size of the group. All projects should be approved by the instructor before week 3. Students will be using tools and programming languages taught during the class hours to build their website projects.

Students/groups can decide on developing either a website or web-application for this course. The final outcome should include multiple static and at least one dynamic web-page that uses PHP and server hosted database. Groups will be expected to create more than one dynamic web-page - at least one per student. The students/groups are expected to come up with project ideas and discuss it with the instructor during week 2.

Potential project categories:
1. Build/Re-design a research website
2. Build/Re-design a website for archive/library
3. Create a portfolio website/Blogs
4. Innovative Web-app

The classes are expected to be held weekly in-person during the scheduled time. In case of a situation where in-person class is not possible, the session will be held via Zoom during the scheduled time. The topics listed in the weekly schedule below will be covered during the class hours. Any remaining time during the class hours can be used to work on your website project or discuss on-going development with the instructor for feedback.

WEEKLY SCHEDULE

Note: The weekly schedule is subject to change, according to class progression. Please keep an eye on the announcements on MyCourses for any changes.

Date	Week	Topics	Submissions
January 6th	1	Introduction - Instructor & Students Syllabus overview	
January 13th	2	Site-map & Wireframes Brand Development/Website Proposal Design Kit	
January 20th	3	Figma for Design (Guest Lecture: Maria Yala)	Project proposal (Milestone 1)
January 27th	4	HTML & CSS - Introduction	
February 3rd	5	HTML & CSS - Continued	Design Kit (Milestone 2)
February 10th	6	Bootstrap: Web-development framework Introduction	
February 17th	7	Bootstrap: Web-development framework Continued	
February 24th	8	Design presentations & review Each student/group to present their website prototype created in Figma.	Figma Prototype (Milestone 3)
March 3rd		**No Class (Reading Week / Study Break)**	
March 10th	9	Web-Server: Creating server & Management	
March 17th	10	Dynamic websites: Introduction to PHP Using server hosted databases	
March 24th	11	Standard on Web Accessibility: Requirements & Compliance	

March 31th	12	Guest Lecture OR Special Topic: TBD	
April 7th		**No Class (Good Friday)**	
April 13th (Make-up Day)	13	Final presentations & review Each student/group to present their functional website.	Final Website (Milestone 4)

ASSIGNMENTS & SUBMISSIONS

The development steps of your project website will be the milestones serving as assignments that will be evaluated. There are 4 milestones. **Detailed submission guidelines for each milestone will be discussed in class and/or posted on MyCourses**. An overview for each milestone is provided below:

1. Website Proposal (10%)
   1-2 Page proposal should be uploaded to MyCourses.

2. Design Kit (10 %)
   Design Kit should include: Sitemap, wireframe & Brand Kit.
   1-2 Page document explaining your choices and planning. Groups will divide the site-map into sections for each group member to work on.
   Students will upload PDF copy of the submission to MyCourses.

3. Figma prototype (30%)
   A functional prototype is expected to be delivered.
   All pages should be carefully designed and correctly inter-connected.
   A pdf export from Figma along with a link to functional prototype should be submitted on MyCourses.
   Students will also be expected to present their proposal, prototype and design kit for feedback in-class.

4. Final submission (40%)
   The students/groups will present their functional website to fellow students & instructor during the class hours for feedback/evaluation. Codes will be submitted by uploading Zip version export from your Git repository to MyCourses and sharing the final Git repository links. Note: Any commits/push recorded on Git after the submission deadline will be excluded from the final evaluation.

The remaining 10% of the total grade will be evaluated based on class participation of the student. All students are not only expected to build their projects but also actively provide feedback to fellow students and participate in class discussions.

Submission deadline / Late submissions:

You must submit your assignment before the class starts on the day when the assignment is due (refer to the weekly schedule). Your submission should be complete for evaluation i.e., includes all files uploaded to MyCourses, push codes to Git repository and fulfilling any/all other requirements provided in the submission guidelines on MyCourses. **Any changes after 8.30 AM on the day of the class when assignment is due will be considered as late submission.**

Late assignments will not be accepted, and will receive a grade of zero (0). Extensions are only granted in the most exceptional of circumstances, and they must be requested at least one week before the assignment is due.

In the event of illness, standard McGill rules for extensions will apply with a physician's note, and will not count towards your late submission passes. Please contact me as soon as possible to discuss a submission plan.

EVALUATION CRITERIA

The students in group will be evaluated collectively. The breakdown below is only to provide an overview of evaluation criteria. Detailed guidelines will be posted on MyCourses and/or emailed to students later.

1. Website Proposal (10%)
    5 Points for creativity
    5 Points for clarity of description in written document

2. Design Kit (10%)
    3 Points for Sitemap (Include full menu navigation and sections/sub-sections listed)
    3 Points for Wireframe (Clarity of flow/functionality and proposed design layout)
    4 Points for Brand Kit (Logo Design, Colour selection relevance etc.)

3. Figma prototype (30%)
    10 Points for a fully functional prototype. More than 70% of the buttons/links should be working and landing on correct pages.
    10 Points for attention to details. Consistent font, design & using best practices for web-designing.
    10 Points for creative skills and innovative ideas.

4. Final submission (40%)
    5 Points for functional website.
    10 Points for design implementation.
    10 Points for following best practices in web programming.
    15 Points for implementing dynamic pages.

5. Class Participation (10%)
    10 Points for actively proving feedback to other students/groups on their projects.

Academic Rights and responsibilities
All students must be thoroughly familiar with the Student Rights and Responsibilities:
http://www.mcgill.ca/students/srr/.

Integrity
This class follows McGill University policies, procedures and guidelines
(https://www.mcgill.ca/secretariat/policies-and-regulations). Class participation is a valued aspect of this course.
Discussions on class-related materials and business, whether they take place in the classroom or online (e.g., via zoom or the discussion board on MyCourses), should be conducted in a respectful manner, reflective of both the class policies (bulleted below) and McGill University policies, procedures and guidelines.

- "McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures."
- For assignments, reports, presentations, or whenever the words or ideas of others are used, sources must be properly quoted and cited. Class conduct

Copyright of Course Materials
Instructor-generated course materials (e.g., handouts, notes, summaries, exam questions, etc.) are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor. Note that infringements of copyright can be subject to follow up by the University under the Code of Student Conduct and Disciplinary Procedures. No audio or video recording is allowed in class without the explicit permission of this instructor.

Students with disabilities
If you have a disability please consult the *Student Accessibility and Achivement* (formerly known as *the Office for Students with Disabilities*) (https://www.mcgill.ca/access-achieve/)

Extraordinary Circumstances
Syllabus may change in the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.