Concordia University
SOEN 287: Web Programming (3 Credits)
Fall 2022
Course Outline/Syllabus

Section	Lecture Time and Place	Instructor	Contact	Office Hour
Q	Tuesday and Thursday 10:15AM - 11:30AM	Abdelghani Benharref	abdelghani.benharref@concordia.ca	Tuesday 1:00pm -2:30pm
Tut Q QA	Tuesday 11:45AM - 1:25PM	Smit Desai	smitdesai1010@gmail.com	
Tut Q QB	Thursday 4:15PM - 5:55PM	Sandeep Chowdary	avgchowdary@gmail.com	
Tut Q QC	Tuesday 4:05PM - 5:45PM	Sandeep Chowdary	avgchowdary@gmail.com	
Marker	TBA			

Background Knowledge

Prerequisite: COMP 248 - Object Oriented Programming I.
You should have basic programming skills; in particular, you should have a good understanding of expressions, statements, methods, parameters, and arrays. You are assumed zero background on Web programming.

Course Calendar Description

Internet architecture and protocols. Web applications through clients and servers. Markup languages. Client-side programming using scripting languages. Static website contents and dynamic page generation through server-side programming. Preserving state (client-side) in web applications.

- Lectures: three hours per week.
- Tutorial: two hours per week.

Course Objectives and Content

This is an introductory course to Web programming.

The course will include discussions and explanations of the following topics: Internet architecture and protocols; Web applications through clients and servers; markup languages; client-side programming using scripting languages; static website contents and dynamic page generation through server-side programming; preserving state in Web applications.

Please notice that Web programming and Web application is a very wide domain. Many techniques are used to build a complex online business system. The following topics are NOT covered in this course, but in some other courses:

- J2EE, JSP, Servlet, (SOEN 387), Web services (SOEN 487)
- Security (SOEN 321)
- Enterprise level systems and applications (SOEN 387, SOEN 487)
- Database and SQL (COMP 353)

Course Learning Outcomes (CLO)

Upon successful completion of this course, students will be able to:

CLO 1. Have gained factual knowledge on Web site development.

CLO 2. Be able to analyze and evaluate different technical solutions when developing a Web site and apply the learned techniques properly.

CLO 3. Be able to cultivate creative and innovative ideas when developing Internet applications.

CEAB Attribute Assessment

As part of either the Computer Science or Software Engineering program curriculum, the content of this course includes material and exercises related to the teaching and evaluation of graduate attributes. Graduate attributes are skills that have been identified by the Canadian Engineering Accreditation Board (CEAB) and the Canadian Information Processing Society (CIPS) as being central to the formation of Engineers, computer scientists and information technology professionals.

As such, the accreditation criteria for the Software Engineering and Computer Science programs dictate that graduate attributes are taught and evaluated as part of the courses.

The following is the list of graduate attributes covered in SOEN 287, along with a description of how these attributes are incorporated in the course:

- **Knowledge-base:** Internet architecture and protocols. Web applications through clients and servers. Markup languages. Client-side programming using scripting languages. Static website contents and dynamic page generation through server-side programming. Preserving state (client-side) in web applications. (CLO 1)
- **Use of Engineering tools:** Use of appropriate software development tools and languages to develop web applications both on client and server side. (CLO 3)

Required Text Book

Programming the World Wide Web by Robert W. Sebesta, 8th edition, Pearson, 2014. The book is available in 2 formats:

- Hard Copy: ISBN: 978-0-13-377598-3
- Digital Copy: ISBN: 978-0-13-377612-6

Computing Facilities

This is a hands-on course. You need to have a computer at home and be able to connect to Internet.

Course Web Page

Many resources for the course (lecture slides, assignments and solutions, example programs . . .) will be available on the course web site at moodle.concordia.ca. Be sure to consult the web page frequently.

Tutorials

Tutorials will take place once a week starting from the second week. Tutorial attendance is strongly encouraged. The tutorials will reinforce the material seen during the lectures with examples and practical exercises.

Assignments/Examinations

a) A group project.

Please Note:

- No late submissions will be accepted.
- Project submitted in the incorrect location and/or not in the proper format will **not** be considered.

b) Examinations (Please also check the addendum on the next page)

- Term test: the midterm test is in person and closed book. This exam will take place on **22nd of October, 2022 at 2:30pm in rooms H531 and H535**. **There are no make-up term tests**.
- Final Examination: The final examination **is in person and closed-book exam**. It lasts two hours and will be administered during the examination period at the end of the term. The final examination covers all material seen during the term. **There are no make-up term tests**.

Evaluation Scheme

Project	20%
1 term test	35%
Final exam	45%

1. In order to pass the course, you must pass the term test and the final exam by getting **over 50%** of the marks in each one of them, regardless of your grade in other required components.
2. **There is no standard relationship between percentages and letter grades assigned**.
3. Although we encourage discussion of the project among students and groups, you should be aware of the University regulations concerning plagiarism described in 16.3.13 of the undergraduate Calendar. All students should become familiar with the University's Code of Conduct located at http://www.concordia.ca/students/academic-integrity/code.html .
   In cases where cheating or plagiarism is suspected, the case will be forwarded directly to the appropriate university office for consideration. Please do not assume that you get "second chances" when it comes to cheating. Once is often enough to damage your academic career.

How to study in this course:

- If certain concepts are unclear to you, seek help right away. Ask your TA during the tutorial and/or your instructor for help. Make use of your instructor's office hours; book an appointment with your instructor if the office hours are not suitable.
- Programming is not a "spectator sport". You need to get your hands dirty by trying the examples discussed in class as well as look for other examples online and/or in textbooks.

Note from University Administration

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

Special Needs:

If you have any special needs, please contact your instructor to arrange a time to discuss the situation.

Academic Support:

If you are experiencing difficulties that are affecting your studies, Concordia offers many on-campus free of charge services. You can find a list of resources at the Student Success Centre Website: http://www.concordia.ca/students/success.html

TENTATIVE SCHEDULE

The list below provides a summary of the material that will be covered during the course as well as a *tentative* schedule. Please check the course webpage for any changes.

Week	Chapter	Topics
1	1, 2	Fundamentals, HTML
2	1, 2	Fundamentals, HTML
3	2, 3	HTML, CSS
4	3, 4	CSS, JavaScript
5	4, 5	JavaScript
6	5	JavaScript
7	6	Dynamic HTML with JavaScript
8	6	Dynamic HTML with JavaScript
9	6	Dynamic HTML with JavaScript
10	9	PHP: syntax
11	9	form handling
12	9	PHP: patterns, File I/O, cookies
13	9	PHP: sessions