

CMPS 350 - Web Development Fundamentals

Syllabus and Course Admin



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Outline for Today

- Course introduction
- Grading
- Policies

About the Instructor

- **Dr. Abdelkarim Erradi**
 - **Office:** Office 132 Female Engineering Building
 - **Phone:** 4403 4254

Office hours:

- Female: Thursday **12:00-1:00pm** on Teams
- Male: Sunday **2:00-3:00pm** on Teams
- You can talk to me **after** class if you have issues/questions
- **Best way to contact me is via Teams chat**

Course Goals (1 of 2)

1. Introduce the **principles** and the **technologies** to design and develop Web applications
2. Provide students with the opportunity to design, build, test, and deploy Web applications using various **client-side** and **server-side** technologies
3. Employ state-of-the art application frameworks and development tools to build Web applications

Course Goals (2 of 2)

- Gain practical **hands-on experience** with web-based technologies
 - Often, the best way to understand something is to build it yourself
 - Labs Activities/Assignments
 - Project: Substantial implementation project to design and implement a Web Application
- => Put what you learned into use!
- => This is the closest you can get to experience how real-world Web applications are designed and built

Why this Course?

- Web Applications are **critical applications** that **automate business processes** and **support the organization in achieving its goals**
- There are typically characterized by:
 - A large number of concurrent users. Hence, they need to be **scalable**
 - Users often require fast response time
 - Mission critical hence they need to be **secure, reliable** and **highly available**

=> This course **equips you with the skills** and best practices needed to design and develop Web applications with the required quality attributes

Topics	Weeks	Assessment
HTML	2	
CSS	2	A1 (week 3)
JavaScript	1	A2 (week 5)
JavaScript OOP	1	
Client-side JavaScript	1	A3 (Week 7)
Midterm Exam	1	Lab Midterm (Week 8)
Web API with Node.js	1	
Asynchronous JavaScript	1	A4 (Week 10)
Data Management using MongoDB	2	A5 (Week 12)
MVC-based Web App	1	A6 (Week 14)
Review	1	Lab Exam
Total	14	

Course Roadmap



Web Client

Request

Response



Web Server

Frontend development

HTML for page Structure & Content



CSS for styling



JavaScript for interaction



Backend development

Dynamic Content

Web API

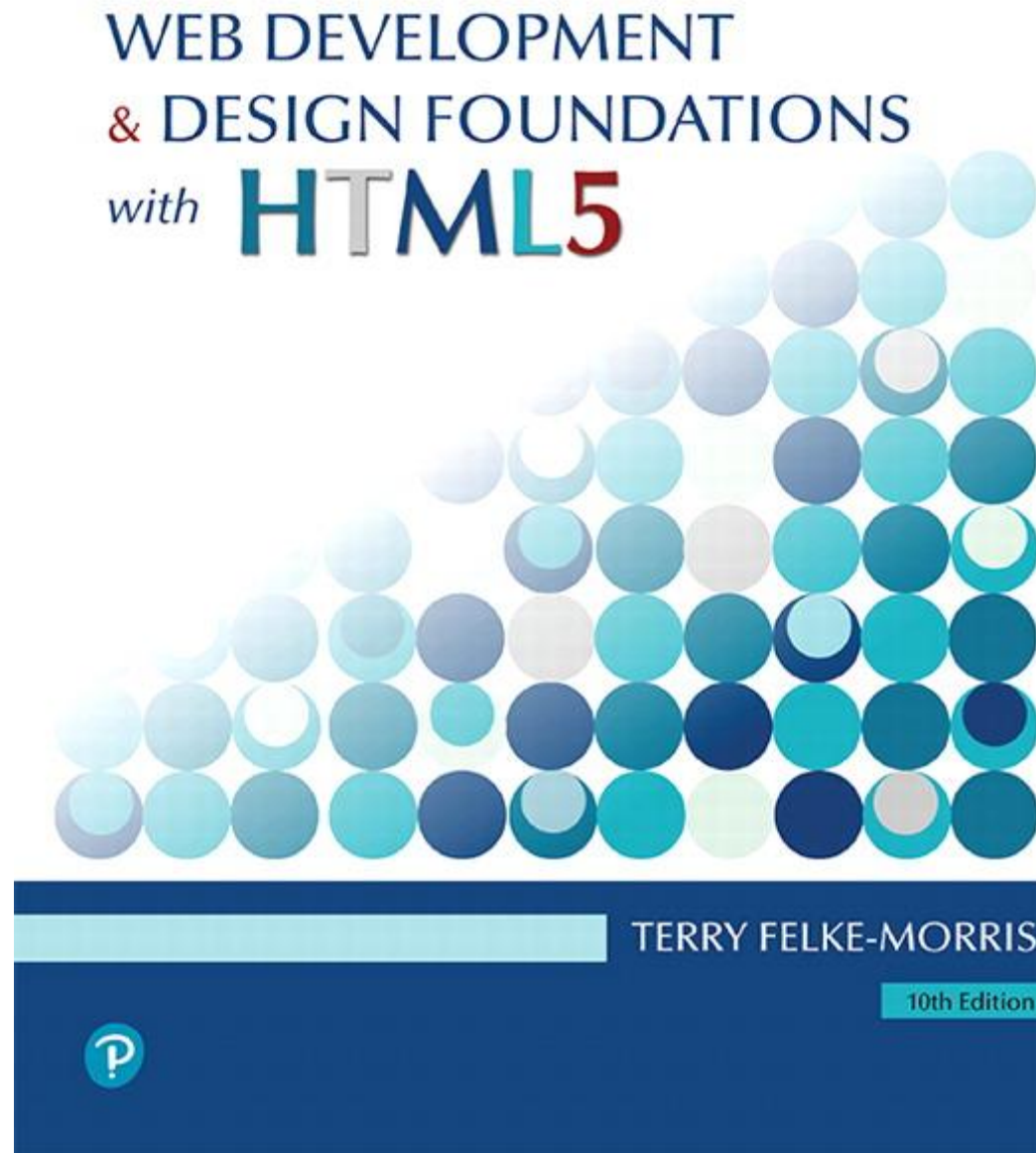
Data Management



Recommended Textbook

**Web Development and
Design Foundations
with HTML5, 10/E.**
Terry Felke-Morris.
ISBN-10: 0136681549,
ISBN-13: 978-
0136681540, 2020,
Pearson

**Plenty of online
resources will
be provided**



Your Grade is Based on:

Theory:


Midterm Exam:	10%
Final Exam:	10% (Consult final exams timetable)
Project Phase 1:	15%*
Project Phase 2:	15%*

Lab:

Lab Assignments:	25% (5 out of 6)
Midterm Lab Exam:	12.5%
Final Lab Exam:	12.5% (During the last Lab)

* Students who get less than 50 marks out of 100 in the Practical Midterm/Final we get their project's grade reduced to half of the group grade

How to succeed in this course....

- ❑ Do your weekly assigned readings
- ❑ **Read the slides before you come to the class**
- ❑ **Exercise a lot – study as many examples as possible**
 -  – Understand and enhance the examples I provide as well as the ones in the textbook and the ones in the provided resources
- ❑ **Attend and participate in class**
 - ❑ Many of the exam questions are from the class explanation
- ❑ Do all the assignments and project **yourself**. Actively contribute to your project.
- ❑ Seek help when needed and ask questions (and do it **EARLY**): During Lectures/Labs & Come to office hours

Learn to Swim!



We learn swimming by swimming and we learn design and programming by practicing it!

Software we will use

- WebStorm
<https://www.jetbrains.com/webstorm/>
- GitHub
- Node.js
- MongoDB
- For modeling we will use **Visual Paradigm**
<https://ap.visual-paradigm.com/qatar-university/license.jsp>
- Other tools will be communicated to you as we go



**GitHub will be used to deliver content,
assignments, and project**

**Check <https://github.com/cmeps350s21/cmeps350-content>
*regularly!***

Lecture slides, Demos and Assignments are there!

**Post your technical questions to Teams
All Communications using Teams (No emails)**

Important Notes

- **Attendance...** QU attendance policies will be enforced
 - Do not miss classes/labs
- **Start your assignments early!!!**
- This is a senior-level course and students are expected to learn independently as much as needed in order to complete the course requirements
 - Do not expect me to find/fix your code bugs
 - Do not expect me to find and fix your technical issues
 - I can only give you high level suggestions and guidance

No 'Free Riding' allowed

- 'free riders' (who do not contribute much) => not acceptable and not fair for hardworking students
 - You must actively contribute to your project and do your ultimate best to deliver the best possible results
 - Otherwise you will be asked to do the project alone



Plagiarism / Cheating

- “Getting an unfair academic advantage”
 - Using other people's work as your own
 - Not doing your assignments yourself
- All the code you submit has to be your own
 - Only exception: Code I have provided or explicitly authorized
 - **NO** code you have found on the web. **NO** sharing with others.
- **Do your homework and project yourself**
 - Do NOT copy from each other or from the Internet - **I will know it!**
 - You can be picked-up randomly to explain your implementation
 - Cheating will be treated very seriously
- Penalties START with a zero on the assignment, failing the course! and other disciplinary actions as per QU policy

To do before next class

- Decide your team members and enter them in the spreadsheet on Teams
- Install the required software (see announcement on Teams)
- Create your GitHub account
- Prepare any questions you might have



I wish you a fruitful and enjoyable journey!