

# 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: Sunday **2:00-3:00pm** on Teams
- Male: Sunday **5:30-6:30pm** on Teams
- You can talk to me **after** class if you have issues/questions
- **Best way to contact me is using Teams chat message**

# 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	Chapter	Weeks	Assessment
HTML		2	
CSS		2	A1 (week 3)
JavaScript		1	A2 (week 5)
OOP with JavaScript & JavaScript Unit Testing		1	
Server-side programming		1	A3 (Week 7)
Midterm Exam		1	Lab Midterm (Week 8)
Asynchronous JavaScript		1	
Web API with Node.js		1	A4 (Week 10)
Client-side JavaScript		2	A5 (Week 12)
Data Management using MongoDB	Online readings	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



JavaScript

Backend development

Dynamic Content

Web API

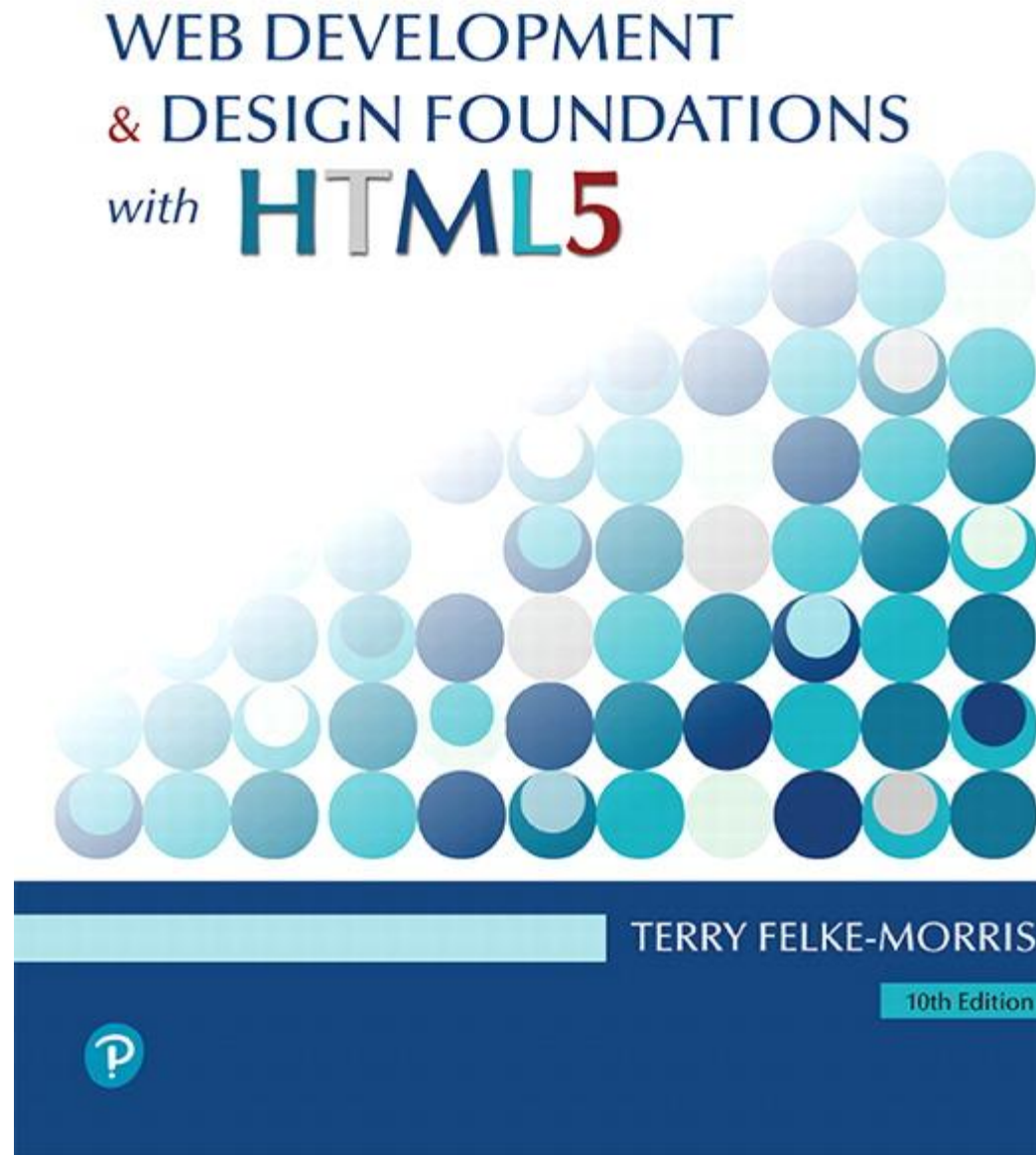
Data Management



# 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!**



"Gentlemen, I suggest we 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 Teams announcement)
- Create your GitHub account
- Prepare any questions you might have



**I wish you a fruitful and enjoyable journey!**