

## CS-1080 - Intro to Web Site Dev

Start Date: June 30, 2025

Section: Summer Academy Location: TBU

On Campus - First 2 weeks	Online - Last 2 weeks
June 30-July 11	<b>July 12 – July 25</b>
Murat Güngör, Ph.D.	Office Hours:
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### **Teaching Assistants and Help Sessions**

Please refer to **Brightspace** course page

# Course Description

Introduction to Web Site Development provides a foundation in website coding, using HTML5, CSS3, and JavaScript. Topics include web design, responsive design, as well as basic programming concepts like variables, functions, branching, and loops. Throughout the course, clean programming style will be emphasized. The course assumes no prior coding experience. Satisfies Quantitative Reasoning (QR).

Prerequisites	<ul><li>None</li></ul>
Note(s)	This course assumes no prior knowledge of computer programming
Credit Hours	3
Textbook / Supplementary Materials	<ul> <li>No textbook required</li> <li>Supplementary Materials         <ul> <li>Supplementary articles will be assigned during the semester via Brightspace</li> </ul> </li> <li>Online resources for learning HTML/CSS/JavaScript:         <ul> <li>W3 Schools <a href="https://www.w3schools.com/whatis">https://www.w3schools.com/whatis</a></li> <li>Mozilla Developer Network</li></ul></li></ul>

## Learning Objectives

Throughout this course, you will

- learn the fundamentals of website development,
- begin writing basic HTML5, CSS3, and JavaScript,
- develop critical thinking and problem-solving skills,
- think creatively to solve problems,
- express solutions clearly and accurately,
- learn to create interactive websites using a high-level programming language, and
- develop programming maturity (resilience, willingness to experiment, confidence, openness to feedback).

## Grade **Distribution:**

Weight (%)	Assessment		
15.00%	Learning Exercises / Discussions		
45.00%	Labs		
15.00%	Quizzes		
10.00%	First Project		
15.00%	Final Project		
100.0%	TOTAL		

## **Schedule of Topics**

(tentative and subject to change):

#	Date	Content	Readings (ch/s)
Mo	Overview of the web, basic structure of a webpage, setting u development environment (VS Code).		MDN Web Docs: Introduction to HTML
		• Module 02: HTML Basics Elements (tags), attributes, headings, paragraphs, lists, links, images.	MDN Web Docs: HTML Basics
Tu	09/01	MDN Web Docs: Tables / HTML Multimedia	
		<ul> <li>Module 04: CSS Basics</li> <li>CSS - color, text, lists, tables. Cont syntax, selectors, colors, background, text properties (fonts, font-size, line-height), images boxes spacing (borders, margin, padding).</li> </ul>	MDN Web Docs: CSS Basics
W	09/02	• Module 05: CSS Layout - Flexbox Introduction to Flexbox (responsive, and dynamic designs) display: flex, basic alignment Media queries	MDN Web Docs: Flexbox Basics CSS-Tricks.com Flexbox Layout Guide
		<ul> <li>First Project Announcement         HTML &amp; CSS Showcase Project – Establish Group - Idea</li> <li>Module 06: Introduction to JavaScript &amp; GitHub         JavaScript (JS) - Write JavaScript - Console output (<u>Update HTML Element</u>), Variables, data types, Operators and Assignments - Update HTML Element</li> </ul>	
Th	09/03	<ul> <li>Module 07: JavaScript Condition Statements and Loops         if/else, for/while loops, arrays</li> <li>First Project Week / Demo         HTML &amp; CSS Showcase Project – In class Project Demonstration</li> </ul>	
Fr	09/04	■ No Classes	
Мо	09/07	<ul> <li>Module 08: JavaScript Functions &amp; Objects         Functions &amp; Objects: declarations, expressions, arrow functions, scope, and callbacks.     </li> </ul>	
		<ul> <li>Module 09: Basic DOM Manipulation         DOM Selection / Manipulation         (getElementByld, querySelector), adding and removing elements         (appendChild, removeChild), dynamic content updates.         Modifying styles dynamically, toggling classes.     </li> </ul>	DOM_ (Document Object Model)

Tu	<ul> <li>09/08</li> <li>Module 10: Events and Handlers         <ul> <li>Event listeners (addEventListener), common events (click, input, change), key events, events propagation (bubbling, capturing), preventing default actions.</li> </ul> </li> </ul>		DOM Events
		<ul> <li>Module 11: HTML Forms and Validation via JS         Form elements (input, textarea, select, button), form validation (required fields, patterns, error messages), handling submissions (onsubmit, preventDefault).     </li> </ul>	HTML Forms, HTML5 Forms, Form Validation
W	09/09	<ul> <li>Module 12: Introduction to JSON</li> <li>What is JSON, <u>JavaScript JSON methods</u>( JSON.parse(),</li> <li>JSON.stringify()), Local Storage Values, fetch function</li> </ul>	Chapter 6 : JavaScript JSON and AJAX
Th	09/10	<ul> <li>Wrapping up the in-person session</li> <li>Final Project Announcement Combining HTML, CSS, and JavaScript - Showcase Project</li> </ul>	
Fr	09/11	■ No Classes	
	7/12-25 Online	<ul> <li>Working on Final Project         Combining HTML, CSS, and JavaScript: Create an interactive form or mini web app (e.g., to-do list, photo gallery).     </li> </ul>	
	7/25	■ Final Project Completion - Demo link submission deadline	

#### **Assessment Deadlines:**

Please refer to Brightspace course page

**Semi-Flipped classroom:** This course is taught as a "semi-flipped" class—that is, it incorporates some lectures and extensive "active learning" exercises. The objective is to provide you with more hands-on experience and practical guidance as you learn how to solve problems through web programming. This means that you are expected to complete direct instruction—typically in the form of readings and videos—prior to coming to class. In our first meeting each week, there will be "lectures", question and answer sessions, review and/or active learning exercises, with instructor and TA support. On the second day, there will be a quiz, and we will engage in hands-on labs, with instructor and TA support

Each week's instructional material will include readings and videos posted on Brightspace.

**Computer:** For this course, you should have a reliable computer on which you can write, run, and debug code. Windows  $\geq 10$  and MacOS  $\geq 12.0$  are supported. If you have a Linux machine, that's fine, but you're on your own for support.

**Software:** You'll be writing code in JavaScript. JavaScript is in plain-text format, so you may write and edit JavaScript code with any plain-text editor (e.g. Notepad++). However, it's helpful to use an integrated development environment (IDE). An IDE provides additional functionality not available with a plain-text editor (syntax highlighting, debugging, etc.). Recommended:

Microsoft Visual Studio Code (VS Code) https://code.visualstudio.com/

**Prior knowledge:** This course assumes no prior knowledge of computer programming. However, we do assume you have working knowledge of the basics of arithmetic and elementary algebra. A high-school course in algebra should suffice. You should also know how to use your computer's operating system, be able to navigate your computer's file system, and be able to open, close, rename, and move files and directories (folders).

**How to Succeed:** It's important to pace yourself and not fall behind. You should be prepared to spend roughly 5 hours per week on this course—though this will vary from student to student. Familiarize yourself with the course schedule, and be sure you understand what is expected of you. Ideally, you should complete all readings for a week before watching instructional videos. You should come ready to take quizzes and revisiting materials as needed. Don't hesitate to ask questions (see Instructor and teaching assistants).

**Practice is Essential**. Learning to write code is like learning to ride a bicycle. All the reading in the world won't give you the ability to ride a bicycle. It only comes with getting on, riding, and occasionally dusting yourself off and having another go at it. Accordingly, you should not rely on others or online resources or generative AI to produce work. The only way to learn is to do it yourself. You'll find this is more rewarding and more fun, despite challenges and setbacks.

### **Important websites:**

- Brightspace, for course materials and announcements: https://brightspace.uvm.edu.
- iClicker for Quizzes Student Login https://student.iclicker.com/ To Join the class https://join.iclicker.com/YRXB
- Learning Resources https://learning.oreilly.com/home

**Correspondence:** Please use email for electronic correspondence (and not MS Teams, but MS Teams can be used like open chatroom). As I teach multiple courses, please indicate the course in which you are enrolled in the subject line. Please use your UVM email for all correspondence.

The assignment of letter grades will be on a conventional scale. Any grade appeal (assignment, quiz, lab, exam, etc.) must be directed to your grader within one week of the grade being posted.

**Final exam:** There is no final exam in this course. The Office of the Registrar schedules final exam dates and times regardless. You may ignore whatever the Registrar has scheduled.

**Quizzes:** In most weeks there will be a brief quiz administered in class using iClicker. Please install iClicker student mobile app on your smartphone. Sign-on will be through UVM's institutional login using your UVM NetID and password. More details will be presented in class.

TA help desk etiquette: The TA help desk is intended for questions and limited support in programming. Do not expect TAs to write or debug your code for you. Come prepared with specific questions. Do not monopolize TA time. Be aware that TAs are instructed to answer questions, demonstrate programming concepts, and to give suggestions that advance your understanding and help you solve programming problems. They are not there to do it for you! TAs are instructed to report abuse of the help desk system, so please be polite, and respect the boundaries. Habitual abuse of the TA Help Desk system may result in a temporary or permanent ban!

**Academic integrity:** The Department of Computer Science enforces UVM's Code of Academic Integrity. Any suspected violation of this policy will be referred immediately to UVM's Center for Student Conduct (https://www.uvm.edu/sconduct). Sanctions for a violation may include a grade of XF in the course. Additional violations can result in dismissal from the university. In a word: Don't. All students should read and understand this policy. See: https://go.uvm.edu/cai.

Collaboration on quizzes and exams is strictly prohibited. Use of online services as a source of solutions is strictly prohibited. Using AI-content generators such as ChatGPT or websites such as Chegg or Course Hero to complete coursework is a form of academic dishonesty. The work you

submit for an individual grade must be your own. Any work not produced by you (or teammates in the case of active learning exercises or labs, where applicable) must be cited. If you have any questions, ask!

Any attempt to tamper with any autograder is a form of academic dishonesty. This applies wherever autograders are in use, for example on Brightspace or Gradescope.

Exams, quizzes, homework assignments, answer keys and solutions, presentations or lecture notes, specifications and rubrics are copyright protected works, unless clearly and explicitly indicated otherwise. Any unauthorized copying or distribution of protected works is a violation of federal law and may result in disciplinary action. This includes submission of protected works as prompts to generative AI. Sharing of course materials without the specific, express approval of the instructor may be a violation of the University's Code of Academic Integrity and an act of academic dishonesty, which could result in disciplinary action. Violations will be handled under UVM's Intellectual Property Policy and Code of Academic Integrity, as appropriate. See: https://go.uvm.edu/ipp and https://go.uvm.edu/cai.

Assessment	Open book / open notes	Collaboration	Generative AI	Online solution(s)
Learning Exercises / Discussions	yes	Yes (with citation)	no	no
Labs	yes	Yes (with citation)	no	no
Quizzes	yes	no	no	no
Projects	yes	Yes (with citation)	no	no

**Attendance:** The UVM attendance policy is available at <a href="https://go.uvm.edu/srr">https://go.uvm.edu/srr</a>. There will be no make-ups for in class active learning exercises if you did not attend class without prior notification and approval. While there is no explicit weight for your attendance, a good attendance record will be taken into consideration when assigning letter grades in the course (e.g., whether a close score is rounded up for final grade).

If you are not able to attend in-person classes, please notify the instructor via email as soon as possible. Depending on the nature of your absence, it may be appropriate for you to contact.

UVM Student Health Services (https://www.uvm.edu/health/SHS),

CEMS Student Services (https://www.uvm.edu/cems/student-services), or the

Dean's Office for your college. In many cases, these can provide an official request for flexibility on your behalf. While reasonable accommodation will be granted in the event of documented illness or emergencies, you are responsible for making up any work you have missed.

**Class participation:** You are expected to be an active participant in class. The more engaged you are, the more you will learn—and the more fun you'll have. This includes being prepared and attentive, responding when called on, participating in group discussion, and asking questions as appropriate. When it comes to asking questions, please don't be shy! There's no such thing as a "dumb" or "silly" question. If there's something you don't understand—ask! Asking questions helps you understand the material presented in the course. Asking questions is good for your classmates. It's almost certain that if you need clarification on some point, that there's at least one other student in the class with the same question. So, help each other out—ask! Finally, when you ask a question, you help the instructor to do a better job of explaining. If someone explains something, and you still don't quite grasp it, it's not unlikely that the explanation could be improved or clarified.

You're expected to read materials, watch videos, etc. as advance preparation for class. In class, we

will have extensive, hands-on programming exercises. Much of this will be done using the "pair programming" approach— two people work as a team. There are two roles: one person serves as the "driver" (at the keyboard) and the other serves as the "navigator." Every 15–20 minutes you'll switch roles. So be prepared to work in teams.

**Late policy / extensions:** Each homework assignment has a specific due date / time. You may submit work up to 24 hours after the due date / time, however, late submissions will be penalized 20%. Submissions that are more than 24 hours late will not be accepted unless an extension has been granted. We will consider reasonable requests for extensions when extenuating circumstances arise. (It can't hurt to ask.) However, extensions will not be granted if the request for extension is made within 24 hours of the time an assignment is due, except in the most extraordinary circumstances. So, if you wish to request an extension, do so early! If an extension is granted, you must submit your work by the agreed-upon extension date.

**Student course evaluations:** Students are warmly encouraged to complete an evaluation of the course at its conclusion. Evaluations are anonymous and confidential, and the information gained, including constructive criticisms, will be used to improve the course.

**Diversity, equity, and inclusion:** UVM is a place where you should be treated with respect and kindness. We welcome individuals of all ages, backgrounds, beliefs, interests, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability, and other visible and non-visible differences. All students are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the community. If you ever feel that you have been unfairly treated or judged by an instructor, a mentor, another student, or another member of the community, please let someone know. Your instructors and advisors in the CEMS Office of Student Services are available to discuss any concerns, or you can report an incident of bias through the bias report program

(https://www.uvm.edu/deanofstudents/bias\_response\_program).

**Conduct:** Be kind to one another and to yourself. Be respectful of yourself, others, and the institution. Please arrive on time. Please, no food in class. Please, no cell phones in class (except for using the iClicker app when requested). You may use a laptop or tablet, but only for active learning sessions, pair programming, taking notes, or assistive technologies.

For other policies on classroom conduct, please see: <a href="https://go.uvm.edu/srr">https://go.uvm.edu/srr</a> and <a href="https://go.uvm.edu/src">https://go.uvm.edu/src</a> and

**Accommodations:** In keeping with UVM policy, if you have a documented disability and are interested in utilizing ADA accommodations, you should contact Student Accessibility Services (SAS), the office of Disability Services on campus for students. SAS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations, which are communicated to faculty in an accommodation letter.

Contact SAS: A170 Living/Learning Center; +1 802 656 7753; access@uvm.edu; or visit https://www.uvm.edu/access.

If you are entitled to use the Exam Proctoring Center, please book reservations at least four days in advance.

**Promoting health and safety:** If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (+1 802 656 3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at <a href="https://www.uvm.edu/deanofstudents">https://www.uvm.edu/deanofstudents</a>.

#### Wellbeing resources:

- Center for Health and Wellbeing: https://www.uvm.edu/health
- Counseling and Psychiatry Services (CAPS): +1 802 656 3340
- Food Insecurity Assistance: https://www.uvm.edu/health/food-insecurity-uvm

**Student advocacy:** https://www.uvm.edu/deanofstudents/student\_advocacy

**Your identity at UVM:** Students at UVM can specify the first name and pronoun they want to use on campus. For information on how to update your preferred name and personal pronouns as well as keeping your legal name private, see: <a href="https://www.uvm.edu/registrar/name-and-pronouns">https://www.uvm.edu/registrar/name-and-pronouns</a>. For UVM policy on lived name and pronouns, see: <a href="https://go.uvm.edu/lnpr">https://go.uvm.edu/lnpr</a>.

**Religious holidays:** Students have the right to practice the religion of their choice. In order to receive extensions or excused absences, you should submit via email your documented religious holiday schedule for the semester within the first two weeks of class. Reasonable extensions will be granted where assignment deadlines conflict with religious holidays.

**Student athletes:** In order to receive extensions or excused absences, you should submit via email appropriate documentation as soon as possible, preferably within the first two weeks of class. Reasonable extensions will be granted where assignment deadlines conflict with team events or team travel.

**Statement on alcohol and other drugs:** We want you to get the most you can out of this course. Therefore, you are expected to familiarize yourself and abide by the University's policies about alcohol, cannabis, tobacco, and other drug use.

See: https://www.uvm.edu/sites/default/files/UVM-Policies/policies/drugandalco.pdf Please do everything you can to optimize your learning and to participate fully in this course.

**Class format changes:** The University of Vermont reserves the right to make changes in the course offerings, mode of delivery, degree requirements, charges, regulations, and procedures contained herein as educational, financial, and health, safety, and welfare considerations require, or as necessary to be compliant with governmental, accreditation, or public health directives.

**Changes to this document:** This document is subject to change. Any such change will be communicated via an announcement on Brightspace. The latest version of the syllabus will always be available on Brightspace.