

Web Programming I Syllabus

For additional course information, including prerequisites, corequisites, and course fees, please refer to the Catalog: https://catalog.uvu.edu/

Semester: Spring Year: 2025

Course Prefix: CS Course and Section #: 2550-601

Course Title: Web Programming I Credits: 3

Course Description

Covers design and development of browser-based programs with an emphasis on single-page applications. Teaches generation and modification of HTML via JavaScript, debugging techniques, communicating with web servers, and use of XML and JSON.

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This co	urse has	the	follo	owing	attributes:
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- ☐ General Education Requirements
- ☐ Global/Intercultural Graduation Requirements
- ☐ Writing Enriched Graduation Requirements
- ☐ Discipline Core Requirements in Program
- ⊠ Elective Core Requirements in Program
- ☐ Open Elective

Other: Click here to enter text.

Instructor Information

Instructor Name: Shelsey Sullivan

Student Learning Outcomes

- 1. Write JavaScript code to generate and manipulate HTML and CSS for web applications;
- 2. Explain the data communication protocols and other network concepts that are important for web applications;
- 3. Explain and use the Document Object Model (DOM) event-based programming in web browsers;
- 4. Address important security issues for web applications;
- 5. Explain XML and JSON and use them in web applications;
- 6. Design and implement client-side programs that can communicate with Internet servers;
- 7. Design and implement basic server-side programs that communicate with web applications running in browsers, debug client-side and server-side programs and communication;
- 8. Use various methods of storing and retrieving data in client-side and server-side programs.

Course Materials and Texts

ZyBooks access (required)

Without Wolverine Access:

- 1. Open your first 'lab' assignment.
- 2. Click on the button 'Open in Zybooks', it will register you the first time.
- 3. You will be asked to provide your section (X01), your student ID #. Have those ready. (if asked for email, provide a 'uvu.edu' or 'my.uvu.edu' address)
- 3. Subscribe and pay, the cost is \$89 for the textbook and lab module

With Wolverine Access (the default, unless you opted out):

For students participating in Wolverine Access you can find your ZyBooks access code by going to your Account Menu in Canvas and clicking the "Textbooks and Course Materials" link. This will either take you straight to a page showing you your course materials, or you will be prompted to create a new account. Make sure to create an account using your UV ID email. Once you are in to your account you will see all the course materials covered by Wolverine Access, including your ZyBook materials. You can reveal your ZyBook access code by clicking the "Go to Website" button.

The access code may not be available the first day of class, but hopefully within the first week of classes.

Course Requirements

Course Assignments, Assessments, and Grading Policy

Grading 93% A

90% A-

87% B+

83% B

80% *B*-77% *C*+

73% C

70% C-

67% D+

63% D 60% D-

60% D-59% E

20% zyBooks Chapters

15% zyBooks Labs

15% Midterm Exam

30% Programming Projects

15% Final Exam

2% Extra Credit

5% Weekly Discussions

0% Survey 102% Total

Assignments

Environment Setup

Project 1

ZyBooks lab 2.9

ZyBooks lab 2.10

ZyBooks lab 2.12

ZyBooks lab 2.13

ZyBooks lab 3.7

ZyBooks lab 3.8

Project 2

Project 3a

Project 3b

ZyBooks lab 3.6

ZyBooks lab 3.9

ZyBooks lab 4.16

ZyBooks lab 4.17

ZyBooks lab 4.18

Project 3

ZyBooks lab 4.19

Midterm Exam

ZyBooks lab 9.8 ZyBooks lab 5.14 Project 4 ZyBooks lab 5.15 ZyBooks lab 5.16

Project 5

ZyBooks lab 6.10

ZyBooks lab 6.11

Final Exam

Required or Recommended Reading Assignments

ZyBooks Chapter 1

ZyBooks Chapter 2

ZyBooks Chapter 3

Design Videos

Design Principles Reading

ZyBooks Chapter 4

ZyBooks Chapter 9

ZyBooks Chapter 5

ZyBooks Chapter 6

General Description of the Subject Matter of Each Lecture or Discussion

Module 1: Web Architecture and Introduction to HTML

Module 2: Basic CSS

Module 3: CSS Positioning, Animations and Effects

Module 4: Design Principles

Module 5: CSS Grid and Flexbox

Module 6: Basic Javascript, Part A

Module 7: Basic Javascript, Part B

Midterm Exam

Module 9: Responsive Layout

Module 10: Javascript in the Browser-Part A

Module 11: Javascript in the Browser-Part B

Module 12: Forms A

Module 13: Forms B

Module 14: Advanced Topics

Required Course Syllabus Statements

Generative AI

Use of ChatGPT (or other similar platforms) as a learning assistant, not as a crutch. If you use it, cite it at the top of your code. You are responsible to make sure that any code or content does what it is supposed to do and says what you want it to say. Don't accept anything it generates at face value without checking it critically. These days potential employers will expect you to know how to use tools like ChatGPT to generate code, so it is a skill we need to teach you. If it helps you learn some things faster, GREAT because we can spend class time on more interesting topics. Just remember: If you REALLY want to be good, work for it.

Using Remote Testing Software

 \boxtimes This course does not use remote testing software.

☐ This course uses remote testing software. Remote test-takers may choose their remote testing locations. Please note, however, that the testing software used for this may conduct a brief scan of remote test-takers' immediate surroundings, may require use of a webcam while taking an exam, may

require the microphone be on while taking an exam, or may require other practices to confirm academic honesty. Test-takers therefore shall have no expectation of privacy in their test-taking location during, or immediately preceding, remote testing. If a student strongly objects to using test-taking software, the student should contact the instructor at the beginning of the semester to determine whether alternative testing arrangements are feasible. Alternatives are not guaranteed.

Required University Syllabus Statements

Accommodations/Students with Disabilities

Students needing accommodations due to a permanent or temporary disability, pregnancy or pregnancy-related conditions may contact UVU <u>Accessibility Services</u> at <u>accessibilityservices@uvu.edu</u> or 801-863-8747.

Accessibility Services is located on the Orem Campus in BA 110.

Deaf/Hard of Hearing students requesting ASL interpreters or transcribers can contact Accessibility Services to set up accommodations. Deaf/Hard of Hearing services can be contacted at DHHservices@uvu.edu

DHH is located on the Orem Campus in BA 112.

Academic Integrity

At Utah Valley University, faculty and students operate in an atmosphere of mutual trust. Maintaining an atmosphere of academic integrity allows for free exchange of ideas and enables all members of the community to achieve their highest potential. Our goal is to foster an intellectual atmosphere that produces scholars of integrity and imaginative thought. In all academic work, the ideas and contributions of others must be appropriately acknowledged and UVU students are expected to produce their own original academic work.

Faculty and students share the responsibility of ensuring the honesty and fairness of the intellectual environment at UVU. Students have a responsibility to promote academic integrity at the university by not participating in or facilitating others' participation in any act of academic dishonesty. As members of the academic community, students must become familiar with their <u>rights and responsibilities</u>. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, assessments, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Likewise, instructors are responsible to clearly state expectations and model best practices.

Further information on what constitutes academic dishonesty is detailed in <u>UVU Policy 541: Student Code of Conduct</u>.

Equity and Title IX

Utah Valley University does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, age (40 and over), disability, veteran status, pregnancy, childbirth, or pregnancy-related conditions, citizenship, genetic information, or other basis protected by applicable law, including Title IX and 34 C.F.R. Part 106, in employment, treatment, admission, access to educational programs and activities, or other University benefits or services. Inquiries about nondiscrimination at UVU may be directed to the U.S. Department of Education's Office for Civil Rights or UVU's Title IX Coordinator at 801-863-7999 – <u>TitleIX@uvu.edu</u> – 800 W University Pkwy, Orem, 84058, Suite BA 203.

Religious Accommodation

UVU values and acknowledges the array of worldviews, faiths, and religions represented in our student body, and as such provides supportive accommodations for students. Religious belief or conscience broadly includes religious, non-religious, theistic, or non-theistic moral or ethical beliefs as well as participation in religious holidays, observances, or activities. Accommodations may include scheduling or due-date modifications or make-up assignments for missed class work.

To seek a religious accommodation, a student must provide written notice to the instructor and the Director of Accessibility Services at accessibilityservices@uvu.edu. If the accommodation relates to a scheduling conflict, the notice should include the date, time, and brief description of the difficulty posed by the conflict. Such requests should be made as soon as the student is aware of the prospective scheduling conflict.

While religious expression is welcome throughout campus, UVU also has a <u>specially dedicated</u> <u>space</u> for meditation, prayer, reflection, or other forms of religious expression.