# Web Development with HTML

* **Instructor:** Jerry Miller-Price
* **Volunteers:** Candice, John, Teresa, and Jenny
* **School:** Washington State School for the Blind
* **Format:** In-person, hands-on lab with capstone project
* **Final Project:** A custom interactive website

## Course Description

This course introduces students to the fundamentals of web development using **HTML**, the structural language of the web. Students will learn how to create, edit, and publish accessible web pages using **Notepad++**. By the end of the course, students will design and build their own interactive website, applying best practices for accessibility and user experience.

## Course Goals

By the end of this course, students will be able to:

* Understand how the web works
* Write, structure, and debug valid HTML code.
* Use semantic HTML to create well-organized web content.
* Incorporate text, links, media, and forms into web pages.
* Apply accessibility best practices, including alt text and semantic structure.
* Use web inspector tools and validators to check and improve code.
* Build and present a complete, interactive website as a final project.

## Materials

* **Software:** Notepad++
* **Browser:** Chrome
* **Resources:**

- W3Schools HTML Tutorials (https://www.w3schools.com/html/)

- W3C HTML Validator (https://validator.w3.org/)

## Units and Lessons

### Unit 1: Introduction to HTML and Notepad++

* Course overview, goals, and capstone introduction
* What is the web? Elements of a webpage
* Introduction to HTML
* Setting up Notepad++, saving and opening HTML files
* Explore an example HTML project

### Unit 2: HTML Essentials

* Elements, tags, and nesting
* Document structure and creating your first HTML file
* Page titles

### Unit 3: Text Content

* Headings
* Paragraphs and line breaks
* Text formatting (bold, italic, etc.)
* Quotes
* Lists (unordered, ordered, nested)
* Comments

### Unit 4: Links and Navigation

* Attributes
* Links
* Navigation menus

### Unit 5: Media

* Images and alt text
* Audio and transcripts
* Video and captions

### Unit 6: Tables

* Creating tables
* Rows, headers, captions, and keyboard navigation

### Unit 7: Forms

* Basic forms and input types
* Labels and accessibility
* Advanced elements: text areas, dropdowns, buttons, validation

### Unit 8: Content Organization and Semantic Structure

* Divs, spans, semantic HTML5 structure (`<header>`, `<main>`, `<section>`, etc.)
* Using browser inspector and W3 validator

### Stretch Goal 1: CSS and Styling

* Custom layout
* Typography, font size
* Text and background colors

### Stretch Goal 2: GitHub and Publishing

* Create repositories on GitHub
* Manage web files
* Publish your website

## Assessment

* **Classwork and Labs (50%)**: Hands-on exercises and small projects
* **Quizzes (10%)**: Short knowledge checks on HTML concepts
* **Participation (10%)**: Engaging in class, supporting peers, practicing accessibility
* **Final Project (30%)**: A complete custom interactive website, presented in class

## Accessibility and Inclusion

* All materials will be screen-reader friendly.
* Code examples will be provided in accessible format.
* Peer review will include accessibility checks (e.g., alt text, headings).
* Students may adapt project themes to their interests.

## Final Project

Each student will design, build, and present a **custom website** that:

* Contains extensive custom content using proper HTML elements
* Uses text, links, media and at least one table or form.
* Applies semantic HTML and accessibility best practices.
* Passes W3C validation with minimal errors.