Introduction to Web Development

by University of California, Davis

## Course Overview and Website Structure and Hosting

This first module provides an overview of how websites function, their structure, and the ins and outs of choosing a website name and selecting an online host to house your website. By the end of this module, you'll be able to: find and select a web hosting company; choose an effective domain name; use the host to manage your websites; and discuss how networks and the internet function at a high level.

## Learning Objectives

* Define what a website hosting company does
* Explain why you need a website hosting company
* Select a hosting company
* Choose a good name for your website
* Explain how a domain name service works
* Identify common tools used in web development

# Week 1

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### 9 videos, 3 readings

1. [**Video:**Course Overview](https://www.coursera.org/lecture/web-development/course-overview-KArsW)
2. **Video:**Module 1 Introduction
3. **Video:**What is a Web Hosting Company?
4. **Video:**How to Find and Select a Web Hosting Company
5. **Video:**Naming a Website
6. **Video:**Website Name Registration
7. **Video:**Networks and the Internet
8. **Video:**First Look at a Website Control Panel
9. **Video:**Web Development Tools
10. **Reading:**How to Zip and Unzip Files
11. **Reading:**Web Hosting Additional Resources
12. **Discussion Prompt:**Why are you here?
13. **Reading:**Suggested Activity: Website Hosting and Naming
14. **Discussion Prompt:**Hosting a Website

**Graded:**Module 1 Quiz

# Week 2

## Designing Your Own Website: HTML Basics

In this module, we'll begin to explore how to design and create websites by exploring the base language used to power all websites: HTML. By the end of this lesson, you'll be able to: identify and use common HTML tags; add an image to a webpage; create HTML-formatted tables; use hyperlinks to connect a series of webpages; upload your finished HTML pages to a web host; and, learn some tips and tricks for styling pages and practicing your coding.

### 10 videos, 1 reading

1. [**Video:**Module 2 Introduction](https://www.coursera.org/lecture/web-development/module-2-introduction-Az38W)
2. **Video:**Components and Structure of a Website
3. **Video:**Creating Your Own HTML: Setting Up a Template
4. **Video:**Creating Your Own HTML: Creating Links and Formatting Text
5. **Video:**Creating Your Own HTML: Working with Images
6. **Video:**Creating Your Own HTML: Working with Tables
7. **Video:**Creating HTML - How to Practice
8. **Video:**How to Put Your HTML on the Internet
9. **Video:**How to Test Your HTML
10. **Video:**Basic Styling in Webpages
11. **Reading:**HTML Additional Resources
12. **Discussion Prompt:**Do you have a favorite tag?
13. **Discussion Prompt:**Telling a Friend about HTML
14. **Peer Review:**Setting Up Your Own HTML Template

**Graded:**Module 2 Quiz

# Week 3

## Introduction to Programming Using JavaScript

Now that you know some basic HTML, it's time to turn our attention to another common scripting language used to make websites dynamic - that is allowing users to interact with your webpages - JavaScript. While learning about JavaScript, you'll also gain some foundational knowledge common to all programming languages. By the end of this module, you'll be able to: discuss what is meant by dynamic content; perform essential programming language tasks; create simple JavaScript programs; use JavaScript to set up alerts and respond to events, to read input, and to change HTML; and conduct basic JavaScript testing.

### 9 videos, 1 reading

1. [**Video:**Module 3 Introduction](https://www.coursera.org/lecture/web-development/module-3-introduction-0kKUm)
2. **Video:**Static vs. Dynamic Webpages
3. **Video:**The Value of JavaScript to Our Websites
4. **Video:**JavaScript Basics: Fundamental Syntax, Part 1
5. **Video:**JavaScript Basics: Fundamental Syntax, Part 2
6. **Video:**Putting JavaScript to Work: Using Alerts and Prompts
7. **Video:**Putting Javascript to Work: Events
8. **Video:**Putting JavaScript to Work: Gathering Additional User Input and Dynamically Modifying HTML
9. **Video:**Testing JavaScript
10. **Reading:**JavaScript Additional Resources
11. **Discussion Prompt:**JavaScript and HTML
12. **Discussion Prompt:**Tell a Friend About JavaScript
13. **Peer Review:**Our First JavaScript Program

**Graded:**Module 3 Quiz

# Week 4

## Websites with Style: CSS Properties, Colors and Fonts

While HTML and JavaScript are very useful for web development, they don't exactly make websites look attractive - that's where cascading style sheets, or CSS, comes into play. While HTML is used to build the structure of our pages and JavaScript is used to provide interactive functionality, CSS is used to graphically design and layout webpages. By the end of this module, you'll be able to: discuss common mistakes in designing a website; identify and apply CSS basics like purpose and syntax; use CSS properties to control fonts, colors, layouts, and other common properties; differentiate between in-line, internal, and external CSS; and practice and test your cascading style sheets.

### 10 videos, 1 reading

1. [**Video:**Module 4 Introduction](https://www.coursera.org/lecture/web-development/module-4-introduction-rLzCb)
2. **Video:**Plain Websites are Boring
3. **Video:**CSS Basics, Part 1
4. **Video:**CSS Basics, Part 2
5. **Video:**Putting CSS to Work: Getting Started with External CSS
6. **Video:**Putting CSS to Work: Setting Colors with CSS
7. **Video:**Putting CSS to Work: Controlling Your Page Layout
8. **Video:**Putting CSS to Work: Common CSS Properties
9. **Video:**How to Practice CSS
10. **Video:**Testing Website Styles
11. **Reading:**CSS Additional Resources
12. **Discussion Prompt:**HTML, CSS, and JavaScript
13. **Peer Review:**Enhancing a Webpage with CSS

**Graded:**Module 4 Quiz

# Week 5

## Creating HTML Forms

In this lesson, we're going to learn to apply all of the skills we've acquired so far to make a very common, and very useful type of webpage - an HTML form. HTML forms are seen everywhere on the internet and are used to capture particular information from users in a variety of ways. By the end of this module you'll be able to: create basic HTML forms; identify and appropriately use different types of HTML input; validate user input; submit HTML forms; and test how your forms are working and troubleshoot errors.

### 7 videos, 1 reading

1. [**Video:**Module 5 Introduction](https://www.coursera.org/lecture/web-development/module-5-introduction-jzSgj)
2. **Video:**HTML Forms User Input
3. **Video:**HTML Form Elements
4. **Video:**HTML Form Validation: JavaScript
5. **Video:**HTML Form Validation: Complex Form Example
6. **Video:**HTML Form Validation: Additional Features
7. **Video:**HTML Form Validation: Processing
8. **Reading:**HTML Forms Additional Resources
9. **Discussion Prompt:**Exploring HTML Forms
10. **Peer Review:**HTML Form Practice

**Graded:**Module 5 Quiz

# Week 6

## Creating Web Applications

In our final module, we're going to explore the basics of designing web applications - programming useful and dynamic webpages that allow our users to interact with them. By the end of this lesson you'll be able to: distinguish between client and server-side development; apply advanced JavaScript programming skills to create logic with selection and iteration; create new features for applications; create more advanced HTML forms; and practice and learn additional troubleshooting and problem-solving techniques. The module wraps with a final peer review activity that will draw upon all of the skills you've learned in this course.

### 8 videos, 1 reading

1. [**Video:**Module 6 Introduction](https://www.coursera.org/lecture/web-development/module-6-introduction-BtGVw)
2. **Video:**Client-side versus Server-side Application Development
3. **Video:**Features in Web Applications: The While Loop
4. **Video:**Features in Web Applications: The For Loop
5. **Video:**Creating New Features in Web Applications
6. **Video:**Guided Practice with HTML Form Validation, Part 1
7. **Video:**Guided Practice with HTML Form Validation, Part 2
8. **Reading:**Validating HTML Forms
9. **Discussion Prompt:**Wrapping Up
10. **Video:**Course Summary

**Graded:**Module 6 Quiz

**Graded:**Complete HTML Form