

# Introduction to Web Development

Course Syllabus

# Web Development Foundations Syllabus

## General Overview

The IWD explores the fundamentals of web design and development. The course teaches core concepts such as user interface design, design software, and the basics of responsive layout design. When students have an understanding of how to apply design to a project it transitions to coding instructions covering the foundation of HTML and CSS to bring those designs to the browser and create visually appealing web pages.

## Course Objectives

Upon completion of this course, student will be able to:

- Illustrate the life cycle of a web project from idea to development
- Define industry standard design terms and principles
- Illustrate design techniques and apply them to their own project ideas
- Utilize HTML to create the structure and define the content of their web pages
- Utilize CSS to create visually appealing and flexible web pages

## Mission and Goals

In accordance with the Mission of Mastery Coding, the faculty, staff, and students understand and declare our purpose to be the encouragement of life-long learning, academic excellence, the education of the whole person, and future readiness in a world changed by technology.

## Value and respect for all individuals

We believe in the worth of each individual. We affirm the inherent dignity and value of each person. Therefore, we believe that all individuals have the potential to be successful learners with unique characteristics and experiences that bring positive value and meaning to the learning experience.

## All students will be:

- Offered a challenging learning experience that will help to maximize their individual achievement and provide meaningful opportunities for students to excel
- Offered diverse instructional suggestions and strategies that address the specific needs of the United State's diverse population
- Provided a clear instructional goal
- Afforded an instructional program that preserves the balance of conceptual understanding and problem solving of the subject area.
- Provided the learning in each instructional year that lays the necessary groundwork for success in subsequent years of study
- Provided a learning environment that fosters a genuine understanding and confidence in all students that through hard work and sustained effort, they can achieve or exceed the learning objectives
- Provided a cogent balance theory, research, and practice.

## Develop moral, intellectual, responsible, and caring citizens

We are committed to the preparation of students who will be exemplars in the field, and who reflect high standards of ethics and values. We seek to be, and to encourage others to be, people who have the intellectual skills to critically evaluate important issues, have the moral conviction to respond as agents of change, and exhibit an ethic of care in the service of others.

### Grading Scale

93.0%-100%	A
90.5%-92.9%	A-
88.0%-90.4%	B+
85.0%-87.9%	B
80.0%-84.9%	B-
78.0%-79.4%	C+
71.0%-77.9%	C
69.5%-70.9%	C-
68.0%-69.4%	D+
61.0%-67.9%	D
59.5%-60.9%	D-
0 - 59.4%	F

*\*The instructor retains the right to make changes, additions or deletions to the syllabus during the course of the learning period.*

## Course Breakdown

### Unit 1: Designing for the Internet

Students will learn the fundamentals of visual design, how to create layouts for the web using design software, and the best practices to make designs that a variety of people can enjoy.

#### Learning Objectives

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

- Define industry terms and careers associated with web design
- Compare and contrast user interface and user experience design
- Utilize an interface design software to produce a project

#### Chapters

- **Chapter 1: Welcome to Web Foundations (Duration: 1 hr 15 min)**
  - Course overview and explanation of the course toolkit
  - Overview of web design terminology, workflows, and associated careers
- **Chapter 2: Introduction to UX & UI (Duration: 2 hrs 45 min)**
  - Define related and differentiated concepts for user interface and experience design
  - Recognize common user interface software tools and shortcuts
- **Chapter 3: Design Workflow & Principles (Duration: 2 hrs)**
  - Define scope and how to conduct research for a new project idea
  - Illustrate the importance of understanding the project's target audience
- **Chapter 4: Designing for Responsive Layouts (Duration: 2 hrs 15 min)**
  - Identify the grid types used to optimally display different types of content
  - Recognize terms related to a responsive, mobile-first design approach
- **Chapter 5: Unit Project | Mood Board to Mockup (Duration: 2 hrs 30 min)**
  - Students will create a layout plan, wireframe, and high fidelity design mockup

## Course Breakdown

### Unit 2: Web Development Basics

Students will begin the transition from web designer to web developer as we discuss the workings of the internet, the web browser and the foundational skills that will allow us to turn our designs to websites.

#### Learning Objectives

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

- Create the structure and content of a web page using HTML
- Apply a variety of visual styling to a web page using CSS

#### Chapters

- **Chapter 1: The Internet & HTML (Duration: 2 hrs 45 min)**
  - Overview of the internet, the history of its development, and its regulations
  - Introduction to HTML and its history, syntax, and the basics of formatting text
- **Chapter 2: Styling with CSS (Duration: 2 hrs 30 min)**
  - Define CSS, its use in regards to web development, and its syntax
  - Draw similarities between user interface design concepts and CSS properties
  - Define character sets and identify the generic font families
- **Chapter 3: Designing as a Developer (Duration: 2 hrs 30 min)**
  - Explain the usage of the color wheel and defining characteristics of color
  - Apply color in code using keywords, hex, RGB, and HSL values
  - Show how to utilize generic fonts and those hosted by the Google Font Library
- **Chapter 4: Arranging Content (Duration: 2 hrs 30 min)**
  - Illustrate how to properly structure content in HTML using semantic markup
  - Use various CSS properties to position elements on the web page

## Course Breakdown

### Unit 2: Web Development Basics

#### Continued...

- Chapter 5: Links, Lists & Tables (Duration: 1 hr 30 min)
  - Overview of links and their ability to connect external and internal content
  - Define new methods to structure HTML content using lists and tables
- Chapter 6: Media Elements (Duration: 1 hr 30 min)
  - Define the unique media types that can be incorporated into web pages, such as images, video, and iframes
  - Identify the importance of offering multiple sources when adding media
  - Illustrate how to incorporate media content from third party sources like YouTube
- Chapter 7: Unit Project | Green Team Website (Duration: 3 hrs)
  - Utilizing a mockup students will create a web page using HTML and CSS