Course Learning Objectives

Unit 1: Introduction to Web Design

1.1 Simple Sample Learning Objectives

- Students can create an HTML file.
- Students can type HTML code into a text editor.
- Students can save files
- Students can view HTML files in the browser.

1.2 Getting Started with HTML Learning Objectives

- Students know what a markup language is.
- Students know what tags are
- Students understand HTML tag syntax
- Students can author a basic HTML page

1.3 Lists and Tables Learning Objectives

- Students can identify ordered and unordered lists.
- Students can create new HTML files.
- Students can use HTML to create ordered and unordered lists.
- Students can identify parts of a table including rows, columns. data, and headers.
- Students can use HTML to create a table.
- Students can view HTML files using a web browser.

1.4 Attributes, Empty Elements, and Forms Learning Objectives

- Students can identify attributes of elements.
- Students can apply attributes, including **src** and **href**.
- Students can identify empty elements.
- Students can use empty elements in HTML files.
- Students can identify form elements.

- Students can author web forms.

Unit 2: Cascading Style Sheets (CSS)

2.1 Style Learning Objectives

- Students will be able to identify each part of a CSS rule: **selector, declaration, property, value**.
- Students will understand the syntax of a CSS rule including the placement of curly brackets `{ }`, colons `:`, and semi-colons `;`.
- Students will be able to compose CSS rules.
- Students will research CSS rules and properties.
- Students will observe the relationship between CSS rules and HTML elements
- Students can identify different types of styling.
- Students can use inline, internal, or external CSS to style HTML.
- Students can tell the difference between a serif, sans-serif and monospace font.
- Students will explore the different resources linked to in the lesson.
- Students will understand the use of type, universal, class, and ID selectors.
- Students will understand the syntax of each selector type including the special characters that denote each type (`*` for universal, `.` for class, `#` for ID).
- Students will be able to test their code using the codpen.io website.
- Students will implement CSS rules they are given.
- Students will author new CSS rules.

2.2 Color Learning Objectives

- Students will understand that each point on a monitor is a pixel.
- Students will understand that pixel color is created by setting the amount of red, green and blue light transmitted.
- Students will understand that the amount of each color is represented as a number from 0-255.
- Students will experiment using red, green and blue to create colors.
- Students will understand how numbers from 0-255 can be represented in hexadecimal notation.
- Students will apply hexadecimal numbers to specify colors.
- Students will understand the purpose of a color palette.
- Students will identify tools for creating color palettes.
- Students will create a color palette using online tools.
- Students will express a color palette using CSS.
- Students will observe application of CSS palette to HTML file.
- Students will implement their color palette on their HTML file.

2.3 Layout Learning Objectives

- Students understand the use of the `<div>` element.
- Students implement styling using the `<div>` element.
- Students implement styling using descendant selectors.
- Students can identify CSS code to position items using float.

- Students can write CSS code to position items using float.

2.4 Boxes Learning Objectives

- Students will understand the difference between absolute and relative measurements
- Students can author CSS to specify dimensions.
- Students can infer absolute measurements from relative measurements
- Students will identify content, padding, border and margin
- Students will modify padding, border and margin using CSS

Unit 3: CSS Advanced Layout

3.1 CSS Flexbox Learning Objectives

- Students can use Flexbox to layout web pages.
- Students can research features of CSS.
- Students understand increased levels of abstraction allow more complicated layouts with less code.
- Students can identify abstractions such as grow-to-fit and relative sizing.

3.2 CSS Grid Learning Objectives

- Students can use CSS Grid to layout web pages.
- Students can research features of CSS.
- Students understand increased levels of abstraction allow more complicated layouts with less code.
- Students can identify abstractions such as grid areas, grid tracks, and fractional.

Unit 4: JavaScript

4.1 Introduction to JavaScript Learning Objectives

- Students recognize script tag.
- Students differentiate JavaScript from HTML
- Students can modify a sample HTML file using vscode.
- Students can identify JavaScript in an HTML file.
- Students can interpret the purpose JavaScript variables.
- Students can implement an **alert()** function.
- Students understand the purpose of the variables in *guessing.html*.
- Students observe the syntax for variables in JavaScript.
- Students use the development console.
- Students test functions in the development console.
- Students can identify JavaScript functions.
- Students can identify where JavaScript implements logical steps.
- Students can implement JavaScript from an example.
- Students can find and correct any errors.

4.2 Programming Fundamentals Learning Objectives

- Students can identify JavaScript syntax errors.
- Students can test code in the Chrome development console.
- Students can create variables.
- Students can differentiate between types of data.
- Students can perform calculations in JavaScript.
- Students can identify arithmetic operators.
- Students can identify comparison operators.
- Students can author expressions using operators.
- Students can predict the outcome of expressions.
- Students can give real world examples of conditionals.
- Students understand how a program uses conditionals.
- Students can identify the *expression* and *statement* in JavaScript
- Students can implement conditionals in JavaScript

4.3 Snake Game Learning Objectives

- Students can deduce rules of a game from observation.
- Students can test software.
- Students can follow along with video instruction.
- Students can implement code they are unfamiliar with.
- Students can troubleshoot their code.

Unit 5 Software Design Process Learning Objectives

- Students can demonstrate technical skills mastery from course materials.
- Students can collaborate with each other in the creation of a business website.
- Students can communicate effectively with one another.
- Students can implement a design cycle, iterating on their work for improvement.