



## Web Development 7-9 Syllabus

### Course Goals

#### 1 Computer Programs

Students gain a basic understanding of how computer programs work

#### 2 Project Planning and Execution

Students plan and execute an individual project demonstrating their knowledge of web technologies

#### 3 Web Technologies

Students learn about HTML, CSS, and JavaScript, as well as how the three work together to create webpages

### Course Topics

#### 1 HTML

Students understand how to create web pages using HTML.

#### 2 CSS

Students understand how CSS can be used to change the appearance of a web page.

#### 3 JavaScript

Students understand how to write simple JavaScript programs.

#### 4 Functions

Students create new and call existing functions.

#### 5 DOM

Students understand the Document Object Model and how it can be accessed.

#### 6 JQuery

Students learn about JQuery and how to include it in their web pages.

#### 7 Selectors

Students learn how to use selectors to modify the DOM.

#### 8 Event Listeners

Students learn how to create event listeners while using JQuery.

#### 9 Animations

Students learn how to use JQuery to create animated web pages.

### Course Schedule

## Day 1

### Introductions and Ice Breaker

Students are introduced to each other and to the course.

### The Javascript Console

Students learn how to use the JavaScript console bundled with their browser.

### Variables

Students learn to create variables

## Day 2

### Your First JavaScript File

Students create an external script to be loaded by the browser

### Your Home Page

Students learn basic HTML and CSS and create a simple home page

## Day 3

### JavaScript Basics

Students learn about basic JavaScript functionality, including if statements, loops, and functions.

### Document Object Model and jQuery

Students learn about the DOM and use it to make modifications to their home pages.

## Day 4

### Look Ma, A Button!

Students learn about JavaScript Event Listeners.

### Many Elements

Students learn how to deal with more than one DOM element at a time.

### Closures

Students learn about closures and how they can help their functions.

## Day 5

### Images

Students learn how to add images to their home pages and create personalized art.

### Input and Output

Students learn how to read values from HTML inputs as well as adding new elements dynamically.

### Mad Libs

Students create silly mad libs using inputs and jQuery.

## Day 6

### Guessing Number game

Students use their knowledge up to this point to create a simple guessing numbers game.

## **Introduction to Animation**

Students learn about jQuery animations.

## **Day 7**

### **TODO Application**

Students use their knowledge to create a "TODO list", which uses all of the knowledge they have gained thus far

## **Day 8**

### **CSS Animations**

Students create and use CSS animations

### **Final Project Planning**

Students plan out their final project and get their plan approved by the teacher.

### **Final Project pt. 1**

Students start working on their final Projects

## **Day 9**

### **Final Project Pt. 2**

Students work on their final projects

## **Day 10**

### **Final Project Pt. 3**

Students work on their final projects.

### **Final Project Fair**

Students present their final projects to the teacher and their class

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