



# WEB DESIGN

## REGIONAL OCCUPATIONAL PROGRAM

### Tri-Cities ROP / El Rancho High School

### Course Syllabus, 2022-2023



#### **INSTRUCTOR INFORMATION:**

Mr. Richard Knott, Tri-Cities ROP Computer Science and Web Design Instructor

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El Rancho High School Classroom #LD-201 | Period: #3

Class Website: <https://www.class.richardknott.net>

Professional Experience: Web Developer | Adult School Instructor | Retired H.R. Professional

Education: B.S. Degree in Applied Studies w/ minor in Communications from Cal State

University Dominguez Hills | A.A. Degree in Administration of Justice from Cerritos College

#### **COURSE DESCRIPTION:**

This course is designed to develop competency in building and maintaining web sites including critical comparison of web sites, web site development, connectivity, legal issues, and multimedia files. Integrated throughout the course are career preparation standards, which include basic academic skills, communication, interpersonal skills, problem solving, safety, technology, and other employment skills. The student will become proficient in the use of the Hyper Text (HTML) Markup Language, Cascading Style Sheets (CSS) Markup Language, and the JavaScript Programming Language as it pertains to front-end web development.

#### **TEACHING STRATEGIES:**

Student's will use the Codecademy online platform (<https://codecademy.com>) as their main source of learning. Additionally, student's will build websites locally on their own computers using Microsoft's Visual Studio Code editor and added extensions necessary to mimic a professional work environment. Various free instructional internet sources such as <https://www.w3schools.com> or <https://www.freecodecamp.org> may be used for enhanced learning. This course will consist of video lectures, daily coding exercises and assignments, and a hefty amount of web development projects each worth 10 points. One major element of the content is the Code-Along exercises. During these exercises students will follow along (code along) with the instructor as they code. By coding in small chunks, the student will be able to work through new topics incrementally and work towards being a skilled user of the HTML and CSS markup languages, as well as the JavaScript programming language. Additionally, employment skills such as completing an application, resume and/or portfolio creation will be completed.

#### **COURSE OBJECTIVES:**

Students who successfully complete this course will be able to:

- Have the basic technical vocabulary of front-end web development.
- Understand HTML semantic layout and CSS fundamentals
- Understand the fundamentals of the JavaScript programming language and its ability to turn static websites into dynamic interactive sites
- Understand the fundamentals of responsive design using media queries
- Understand the differences between using a content management system such as WordPress to build a website, and building one from scratch with HTML, CSS, and JavaScript
- Understand the common sections of a webpage and its layout: Header, Logo, Navigation, Main Content, Footer, etc.

**STUDENT GRADING:**

Your course grade will be based on ten web development projects done in class. A traditional grading system will be used:

90-100%	=	A
80-89%	=	B
70-79%	=	C
60-69%	=	D
59% and below	=	F

**CLASSROOM EXPECTATIONS:**

Student grading notwithstanding, all students must show respect to other classmates, instructors, and their property, as well as the classroom and its property. Students who display disruptive behavior, willfully damage property, use foul language, act defiantly, or other inappropriate behavior will be considered to have shown disrespect. Each incident of disrespectful behavior will be documented and discussed to help determine the student's ongoing success or failure in the classroom.

Consider this: In the workplace, employers will not tolerate any type of behavior that will disrupt the successful operation of their organization. This means that disrespectful and disruptive employees, regardless of how skilled or productive they may be in their work, can be disciplined by their employer up to and including termination.

Showing respect to others and their property is a simple way to help ensure success in this classroom as well as in the workplace.

A student is considered tardy if they are not in their assigned seat by the designated bell.

Personal cell phones should not be used while in class without direct approval from the instructor. They are to be placed on silent mode during class except for prior approval for family emergencies, or other personal issues.

Food or drinks are not allowed in the classroom.

**UNIT AND LESSON OVERVIEW:**

There are a total of 14 units in this course, with each unit containing various lessons, projects, quizzes, videos, articles, and an occasional test. The instructor may assign additional coding projects throughout the school year. Below is a listing of each unit and their included lessons. Please note that unit topics and lessons are subject to change if necessary.

## **Unit 0: Overview of Web Development**

Lesson 1: Overview of the Internet  
Lesson 2: Languages for Web Development  
Article: What is Programming?  
Video: What is Front-End Web Development?  
Article: Review an Overview of Web Development

## **Unit 1: Fundamentals of HTML**

Lesson 1: Introduction to HTML  
Quiz 1: Introduction to HTML  
Lesson 2: HTML Document Standards  
Quiz 2: HTML Document Standards  
Project 1: Fashion Blog  
Lesson 3: Semantic HTML  
Quiz 3: Semantic HTML  
Project 2: New York City Blog  
Article: Review Fundamentals of HTML  
TEST: Fundamentals of HTML

## **Unit 2: Fundamentals of CSS**

Lesson 1: Setup and Syntax  
Lesson 2: Selectors  
Quiz 1: Setup and Selectors  
Lesson 3: Visual Rules  
Quiz 2: Visual Rules  
Project 1: Healthy Recipes  
Project 2: Olivia Woodruff Portfolio  
Lesson 3: The Box Model  
Lesson 4: Changing the Box Model  
Quiz 3: Box Model  
Video: The Box Model in DevTools  
Project 3: The Box Model: Davies Burgers  
Lesson 5: Display and Positioning  
Quiz 5: Display and Positioning  
Project 4: Broadway  
Article: Review Fundamentals of CSS  
TEST: Fundamentals of CSS

## **Unit 3: Developing Websites Locally**

Lesson 1: The VS Code Text Editor  
Video 1: Intro to Chrome DevTools  
Project 1: Your First Local HTML/CSS Project

## **Unit 4: Deploying Websites**

Video 1: What is Hosting?  
Video 2: What is a Domain Name?  
Article: Review Deploying Websites

## **Unit 5: Using The Command Line**

Lesson 1: Navigation  
Quiz 1: Navigation  
Project 1: Bicycle World  
Project 2: Daily Buzz

## **Unit 6: Improved CSS Styling**

Lesson 1: Colors  
Project 1: Paint Store  
Quiz 1: Colors  
Lesson 2: Typography  
Project 2: Typography  
Quiz 2: Typography  
Lesson 3: Links and Buttons  
Project 3: The Summit  
Quiz 3: Links and Buttons

## **Unit 7: Making a Website Responsive**

Lesson 1: Grids and Spacing  
Quiz 1: Grids and Spacing  
Lesson 2: Flexbox  
Project 1: Flexbox: To-Do App  
Project 2: Tea Cozy  
Quiz 2: Flexbox  
Lesson 3: Grid Essentials  
Quiz 3: Grid  
Lesson 4: Advanced CSS Grid  
Quiz 4: Grid  
Project 3: PupSpa  
Project 4: CSS Grid: Task Board  
Lesson 5: Sizing Elements  
Quiz 5: Sizing Elements  
Lesson 6: Media Queries  
Quiz 6: Media Queries  
Project 5: Tsunami Coffee  
Project 6: Company Home Page  
Project 7: Responsive Club Website  
Article: Review Making a Website Responsive  
TEST: Making a Website Responsive

## **Unit 8: JavaScript Refresher**

Lesson 1: Variables, Data Types  
Lesson 2: Conditional Statements  
Project 1: Magic Eight Ball  
Lesson 3: Functions  
Project 2: Rock, Paper, Scissors  
Lesson 4: Arrays  
Project 3: Secret Message  
Lesson 5: Loops  
Project 4: Whale Talk

## **Unit 9: JavaScript and the DOM**

Lesson 1: The Script Element

Video 1: What is the DOM?

Lesson 2: The Document Object Model

Lesson 3: JavaScript and the DOM

Quiz 1: JavaScript and the DOM

Project: Create Your First JavaScript Website

## **Unit 10: DOM Events with JavaScript**

Lesson 1: DOM Events with JavaScript

Project 1: Piano Keys

Quiz 1: DOM Events

## **Unit 11: HTML Forms**

Lesson 1: Introduction to Form Validation

Lesson 2: HTML Forms

Lesson 3: Form Validation

Project 1: Form a Story

Quiz 1: HTML Forms

## **Unit 12: Making a Website Accessible**

Article 1: Introduction

Article 2: What is Digital Accessibility?

Lesson 1: Accessible Design

Lesson 2: Accessibility

Quiz 1: Accessibility

## **Unit 13: CSS Transitions and Animation**

Lesson 1: CSS Transitions

Project 1: Transitions – 20,000 Leagues Under the Sea

Quiz 1: Transitions

Lesson 2: CSS Keyframes

Project 2: Two-Face



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**HELP AND SUPPORT:**

This class will be challenging! But my promise is to support you in your success in learning the basics of Front-End Web Development. Please let me know right away if you are having any trouble with this class.

**Please initial and sign below**

\_\_\_\_\_ I have this entire document and fully understand what is expected of me in class.

Student Signature: \_\_\_\_\_

Parent / Guardian Signature: \_\_\_\_\_