



KidCoder: Advanced Web Design

Printed Course Syllabus and Planner

Updated October, 2015

Printed Course Overview

Course Title: *KidCoder: Advanced Web Design*

Textbook ISBN: 978-0-9887033-3-9, published 2013 by Homeschool Programming, Inc.

Length: 1 Semester

Student Pre-Requisites: Basic computer literacy skills, 4th – 12th grade status. Students must complete the *KidCoder: Beginning Web Design* course prior to starting this second-semester material.

Description: The *KidCoder: Advanced Web Design* course is a one-semester course on advanced web page design topics using HTML5, CSS3, and JavaScript. Students will learn to create and style their own web pages, right on their computer, with numerous hands-on computer lab activities.

Materials:

- Student Textbook
- Komodo Edit (free IDE)
- Windows or Mac OS personal computer
- Course activities (hands-on programming assignments)
- Course supplemental documentation
- Course instructional videos (optional)

Labs and Grading

Every chapter contains one or more hands-on programming labs where students will design or implement programs to demonstrate understanding of the lesson topics. These labs, combined with end-of-chapter tests, are used to determine the student grade.



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Course Planner

A typical school semester consists of approximately 18 calendar weeks or 90 days of school. This course plan covers 18 school weeks of core material, assuming students are working 3-5 hours per week to stay on pace. Some students may move faster or slower than the suggested pace.

Each chapter contains 3-5 lessons, a chapter test, plus a hands-on programming assignment. Students will also complete “Work With Me” activities within lessons to re-enforce key concepts.

Week	Reading and Objectives	Labs
1	Chapter One: Getting Started <ul style="list-style-type: none">• What You Already Know• Web Editing Tools• Komodo Edit Projects	Installing Komodo Edit Students will install the Komodo Edit IDE on their computer. Aquamaniacs Home Page Layout Set up the Aquamaniacs home page
2	Chapter Two: Introducing HTML5 <ul style="list-style-type: none">• HTML5 and Web Browsers• Identifying HTML5 Pages• HTML5 Element Updates• Komodo Edit Projects	Using Updated HTML5 Elements Students will add new HTML5 elements on their Aquamaniacs home page
3	Chapter Three: Bringing Meaning to Markup <ul style="list-style-type: none">• Defining Areas with Sections• Headers and Footers• Articles, Asides and Navs	Styling Articles and Asides Apply styles to the articles and asides on the Dolphins page



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Week	Reading and Objectives	Labs
4-5	Chapter Four: Figures and Annotations <ul style="list-style-type: none">Figures and CaptionsFigure Annotation with Relative PositioningDynamic Annotations	Leaping Dolphins Apply site-wide styles to figures and captions
6	Chapter Five: Adding Audio and Video <ul style="list-style-type: none">Linked and Embedded VideosHTML5 VideoHTML5 Audio	Sound Bites Add sound clips to a new page
7	Chapter Six: Introducing CSS3 <ul style="list-style-type: none">Browser CompatibilityColors and TransparencyAdvanced Borders and ShadowsCustom Fonts	Branding Aquamaniacs Apply several CSS features to get the main Aquamaniacs look and feel.
8	Chapter Seven: Cool CSS3 Features <ul style="list-style-type: none">Advanced BackgroundsGradientsImage Transformations	Grooving and Shaking Apply transformations and other features to sample fish images
9	Chapter Eight: Relationship Selectors <ul style="list-style-type: none">Parent-Child RelationshipsParent and Child SelectorsSibling Selectors	Emperor Penguins Style a new page using relationship selectors



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Week	Reading and Objectives	Labs
10	Chapter Nine: Pseudo-Selectors <ul style="list-style-type: none">• Pseudo-Class and Pseudo-Element Selectors• First and Last Child Pseudo-Selectors• Numbered and Combined Selectors	Lobsters Style a new page using pseudo-selectors
11-12	Chapter Ten: Dynamic Menus <ul style="list-style-type: none">• Dynamic Menus and Nested Lists• Styling First-Level Dynamic Menus• Styling Second-Level Dynamic Menus	Lionfish Add dynamic annotations to a new page
13-14	Chapter Eleven: Introducing JavaScript <ul style="list-style-type: none">• JavaScript Concepts• JavaScript Events and Functions• Managing Elements with JavaScript• External JavaScript Files	Cuttlefish Add JavaScript behavior to a new page
15	Chapter Twelve: Dynamic Pages with jQuery <ul style="list-style-type: none">• The jQuery Library• jQuery Syntax and Page Loading• jQuery Events• Hiding and Showing Elements	Otters Add jQuery behavior to a new page



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Week	Reading and Objectives	Labs
16	Chapter Thirteen: jQuery Special Effects <ul style="list-style-type: none">• Fading and Sliding• Timing and Multiple Effects• jQuery Animation	Dancing Octopus Create an animation using jQuery
17-18	Chapter Fourteen: Final Project	Start to Finish Students will follow the same basic steps as the first-semester final project to design and implement their own unique websites.