



Web Design

Course Syllabus and Planner

Course Overview

The CompuScholar **Web Design** curriculum is a one-year (two-semester) course covering required topics in most introductory “Web Design” classes. This course has been aligned to specific course standards in many states. Please visit our course description page for a video tour and alignment information.

<https://www.compuscholar.com/schools/courses/web-design/>

Students should have minimal computer usage skills (e.g. keyboarding, mouse, operating system navigation, file management, and text file editing) prior to starting this course.

Course Material

The course consists of the following student-facing elements:

- **Instructional Videos** – optional (not required), but enjoyed by many students as an audio-visual introduction to the lesson topics.
- **Lesson Text** – required reading, contains full topic details and coding exercises
- **Quizzes and Exams** – multiple-choice and automatically graded by our system
- **Chapter Activities** – hands-on projects, submitted for a grade

Teachers additionally have access to:

- **Teacher's Guides** – for each lesson, with suggested discussion questions
- **Quiz and Exam Answer Keys** – PDFs for quick reference
- **Activity Solution Guides** – fully coded activity solutions for each chapter activity



Labs and Programming Environment

Students will build multi-page websites in the first and second semesters. Students must complete all **“Work with Me”** exercises within the Lesson Text pages as well as the **Chapter Activities** to successfully complete these websites.

The recommended student platform for this course is a **Windows** or **Mac OS** computer. During the first semester, hands-on labs will be completed using simple text editors (e.g. Notepad or TextEdit) built into their Windows or Mac OS operating systems. **Chromebook** users may use Google Docs or similar online text editing services instead (see Chapter 2, Lesson 2).

In the second semester, we encourage teachers and students to select and use a web editing tool. Komodo Edit is illustrated throughout the second semester, though teachers may substitute any other development environment that meets their classroom needs. See Chapter 16, Lesson 4 for details.

Course Planner

A typical school year consists of approximately 36 calendar weeks or 180 days of school. The course plan covers approximately 168 school days, with additional time allocated for review, make-up work, individual projects, and Supplemental Lessons.

Each “day” listed below represents one typical class period of 45 – 60 minutes, so students will typically work 3-5 hours per week. The suggested number of days factors in 1 day per lesson & quiz, 1 day per lab, and 1 day per test. Some classes may move faster or slower than the suggested pace.

Each chapter contains multiple lessons, quizzes and a chapter test in addition to the listed Lab assignments. **Completion of in-lesson “Work with Me” exercises and each Chapter Activity is required to successfully finish the ongoing web site projects in each semester.** Teachers may utilize Supplemental Lessons as desired to meet state standards or student interest. Team Projects and other assignments may be adjusted to fit the available time.



Semester 1 Timeline

Days	Reading and Objectives	Labs
5	Chapter One: Web Tools and Languages <ul style="list-style-type: none">• Web Browsers• The Language of "Mark-up"• File Naming and Extensions	Secret Message Hunt Practice viewing existing HTML source code.
6	Chapter Two: Your First Web Page <ul style="list-style-type: none">• Root Directories• Home Pages• Essential HTML Symbols• HTML File Layout	Body Text Experiments Use and
 elements for formatting.
5	Chapter Three: Head and Body Elements <ul style="list-style-type: none">• Header Elements• Body Elements• Highlighting Content	Silent Owl Add a <blockquote> to the page
5	Chapter Four: Organizing Content <ul style="list-style-type: none">• Dividing Up Your Page• Keeping It Neat• HTML Lists	Make an Un-ordered List Create a list on the page



Days	Reading and Objectives	Labs
7	Chapter Five: Connecting Your Site <ul style="list-style-type: none">• Bookmarks and Hyperlinks• The Internal (Relative) Link• The Navigation Bar• The External (Absolute) Link• Email Links	Linking Your Raptors Home Page <p>Add a navigation bar with hyperlinks</p>
7	Chapter Six: Cascading Style Sheets <ul style="list-style-type: none">• Inline Styles• Choosing Colors• Embedded CSS• Applying CSS Rules• External Cascading Style Sheets	External Raptors CSS <p>Create an external CSS file for the Raptors website</p>
5	Chapter Seven: Common CSS Properties <ul style="list-style-type: none">• Font Styles• Margins and Padding• Styling by ID, Class, or Group	Raptors Margins and Padding <p>Adjust margin and padding styles on the Raptors site styles</p>
5	Chapter Eight: Styling Links, Backgrounds, and Borders <ul style="list-style-type: none">• Styling Links• Background Images• Borders	Raptors Borders and Background <p>Add borders and background to the Raptors site styles</p>



Days	Reading and Objectives	Labs
6	Chapter Nine: Positioning <ul style="list-style-type: none">• Arranging Containers• Positioning Nested Elements• Playing with Layers• Floating Positions	Positioning Raptors Containers <p>Float the navigation bar to the left side of the Raptors page</p>
6	Chapter Ten: Creating Your Brand <ul style="list-style-type: none">• Design Principles• Styling the Banner• Creating Custom Bullets• Styling Navigation Bars	Brand Research – Review and analyze existing websites for effective use of color and graphics. Branding Raptors – Add several color and graphical touches to the overall Raptors site styles
5	Chapter Eleven: Working with Graphics <ul style="list-style-type: none">• Finding and Editing Images• Adding Images• Positioning and Styling Photos	Cropping and Editing the Great Grey Owl <p>Practice editing and optimizing a web image.</p> Creating Other Raptors Sub-Pages <p>Use templates to create additional pages in the Raptors website</p>
5	Chapter Twelve: Tables <ul style="list-style-type: none">• Adding a Table• Table Formatting• Finishing Touches for Tables	Raptors Size Table <p>Create and style a new table comparing Raptor sizes</p>



Days	Reading and Objectives	Labs
6	Chapter Thirteen: Web Site Design Strategies <ul style="list-style-type: none">• Project Planning• Accessibility• Static, Dynamic, and Interactive Sites• Search Engine Optimization and Marketing	Storyboard and Site Map <p>Practice creating a storyboard and site map for a chosen website topic</p>
10	Chapter Fourteen: Mid-Term Project <ul style="list-style-type: none">• Online Research• Build Your Website• Evaluation and Feedback	Students will work in teams to research, design, create, test, and review a website on a topic of interest.

The Semester 2 timeline starts on the next page.



Semester 2 Timeline

Days	Reading and Objectives	Labs
7	Chapter Fifteen: Computers and Networks <ul style="list-style-type: none">• Survey of Computer Hardware and Software• Internet History and Structure• Networking Components and Addressing• Network Topology• Network Protocols	Investigate Your Environment <p>Study how the networking infrastructure works at your home or school.</p>
8	Chapter Sixteen: Tools and Trends <ul style="list-style-type: none">• Computer Ethics• Web Security• Emerging Trends in HTML5• Web Editing Tools• Starting a New Project	Select Your Editor <p>Select & install a web editor</p> Aquamaniacs Home Page Layout <p>Configure the home page</p>
7	Chapter Seventeen: HTML5 Concepts <ul style="list-style-type: none">• HTML5 and Web Browsers• Defining Areas with Sections• Headers and Footers• Articles, Asides and Navs	Analyzing Websites for HTML5 <p>Review existing public websites to see how they use HTML5</p> Styling Articles and Asides <p>Apply styles to the articles and asides on the Dolphins page</p>



Days	Reading and Objectives	Labs
5	Chapter Eighteen: Figures and Annotations <ul style="list-style-type: none">Figures and CaptionsFigure Annotation with Relative PositioningDynamic Annotations	Leaping Dolphins <p>Apply site-wide styles to figures and captions</p>
5	Chapter Nineteen: Adding Audio and Video <ul style="list-style-type: none">Linked and Embedded VideosHTML5 VideoHTML5 Audio	Sound Bites <p>Add sound clips to a new page</p>
6	Chapter Twenty: Introducing CSS3 <ul style="list-style-type: none">Browser CompatibilityColors and TransparencyAdvanced Borders and ShadowsCustom Fonts	Branding Aquamaniacs <p>Apply several CSS features to get the main Aquamaniacs look and feel.</p>
5	Chapter Twenty-One: Cool CSS3 Features <ul style="list-style-type: none">Advanced BackgroundsGradientsImage Transformations	Grooving and Shaking <p>Apply transformations and other features to sample fish images</p>



Days	Reading and Objectives	Labs
5	Chapter Twenty-Two: Relationship Selectors <ul style="list-style-type: none">• Parent-Child Relationships• Parent and Child Selectors• Sibling Selectors	Emperor Penguins <p>Style a new page using relationship selectors</p>
5	Chapter Twenty-Three: 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 <p>Style a new page using pseudo-selectors</p>
5	Chapter Twenty-Four: Dynamic Menus <ul style="list-style-type: none">• Dynamic Menus and Nested Lists• Styling First-Level Dynamic Menus• Styling Second-Level Dynamic Menus	Lionfish <p>Add dynamic annotations to a new page</p>
6	Chapter Twenty-Five: Introducing JavaScript <ul style="list-style-type: none">• JavaScript Concepts• JavaScript Events and Functions• Managing Elements with JavaScript• External JavaScript Files	Cuttlefish <p>Add JavaScript behavior to a new page</p>



Days	Reading and Objectives	Labs
6	Chapter Twenty-Six: 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
5	Chapter Twenty-Seven: 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
10	Chapter Twenty-Eight: Final Project <ul style="list-style-type: none">• The Big Picture	Start to Finish Students will follow the same steps as the mid-term project create a website on a topic of interest.

Supplemental Lessons are described on the next page.



Supplemental Lessons

Supplemental Chapters and lessons can be used as desired to meet state standards or provide enrichment topics for students.

Days	Reading and Objectives	Labs
As desired	Supplemental Lessons <ul style="list-style-type: none">• Evaluating Web Hosts and Servers• Domain Name Registration• Using Search Engines• Project Management• Video Editing• Java Applets• Technical Writing• Web Development Roles• Validation and Analytics Tools• Image Maps• HTML Forms• HTML Frames• Student Organizations• Workplace Safety• Responsive Design	Your Own Web Search Your Client Docs Create and Edit a Video Technical Writing Exercise Exploring Web Design Careers Validate Your Code Your Image Map Your HTML Form Frame-Up CTSO Exploration Responsive Aquarium