Instructor's Summary for
Murach's HTML5 and CSS3 (3ʳᵈ Edition)

This summary introduces you to the instructor's materials we've developed for this book and helps you get started using them. At the least, we recommend that you read the topics under "What's included in the instructor's materials," because they not only describe the instructor resources but also our underlying instructional philosophy.

But first, we've included some thoughts about the modular structure of this book that you should be aware of. The structure is important because it gives you some instructional options that you just don't have with other books.

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About the modular structure of the book

After your students complete the first section of the book, you can continue with any other chapter in the book. In other words, chapters 9 through 19 are written as independent modules that require only the first eight chapters of the book as prerequisites. That's what we mean by *modularity*. And that lets you teach the course in the sequence that works best for your class.

Section 1: A professional subset of HTML5 and CSS3

The eight chapters of section 1 present a professional subset of HTML5 and CSS3 that includes all the skills for developing substantial websites. In particular, this section shows how to use HTML5 for the structure and content of a web page and CSS3 for the formatting and page layout. That's the right way to develop web pages, and this section does a thorough job of getting that across.

This section also includes a chapter that shows how to use Responsive Web Design. Responsive Web Design provides for building web pages that look good and work correctly on every type of device from phone to tablet to desktop computer. This is an essential skill for a modern website, and that's why it's presented in section 1.

Once your students master the skills in this section, they'll have the perspective that they need for learning new skills at a rapid pace. From that point on, you can teach the remaining chapters in whatever sequence you think is best.

Section 2: More HTML5 and CSS3 skills as needed

The six chapters of section 2 present professional skills for enhancing a website: skills like working with images, using tables and forms, adding audio and video, embedding fonts, printing a web page in a readable format, and using CSS3 transitions, transforms, animations, and filters. Although you probably won't be able to assign all of these chapters in a single course, you can decide which chapters are most important and assign those. Remember that each of these chapters is a standalone module that makes complete sense after the students have mastered section 1.

Section 3: JavaScript and jQuery skills

The three chapters of section 3 show how to use JavaScript and jQuery to enhance a website. First, chapter 15 shows how to use JavaScript and jQuery to add features like image rollovers, image swaps, and slide shows. Then, chapter 16 shows how to use (1) jQuery UI to add features like accordions and tabs and (2) jQuery plugins to add features like carousels and slide shows. Last, chapter 17 shows how to use jQuery Mobile to develop a mobile website, which can be more practical than re-engineering an established website with Responsive Web Design.

Section 4: Design and deployment

The last section of the book has one chapter on designing a website and one on deploying a website. We put the design chapter in this section because we think design makes more sense after the students learn the professional HTML and CSS subset of section 1. Here again, these chapters are independent modules so they can be taught right after section 1.

Our suggestions for using this book

Once you understand the modular structure of this book, you should have no problem choosing the sequence of chapters that's right for your course. But if you have doubts about what the best sequence is, here are a few suggestions.

First, consider teaching chapter 18, "How to design a website," right after section 1. That will give your students a larger perspective on how websites are put together. That will also prepare them for doing independent projects.

Second, when in doubt, teach the chapters in section 2 in the sequence that they are in the book. In general, this sequence moves from the simple to the complex, and from the most useful skills to the least useful. On the other hand, don't hesitate to modify this sequence based on what your students want to know. Often, the most effective teaching sequence is the one that best reflects your students' interests.

Third, for a change of pace, mix some of the JavaScript and jQuery features into your teaching sequence. Since students enjoy making enhancements like those to their web pages, it's easy to get them interested. And if you're going to show how to build separate websites for mobile devices in your course, jQuery Mobile is a great way to do that.

What's included in the student download

To help your students get the most from our book, our website lets them download a file that includes (1) the book applications, (2) the book examples, (3) starting code for the chapter exercises, and (4) the *solutions* to the exercises. Appendix A in the book shows them how to download and set up these materials on their own systems.

Book applications

Most of the chapters in the book end with an application that demonstrates what the chapter has presented. All of these applications build on the Town Hall website that starts in chapter 3 and continues through chapter 17. We refer to these as the book applications, and they're stored in a folder named *book_apps* when they're downloaded.

Once they've done the download, your students can run these applications to see how they work. They can review all of the code in any application for which the book only presents the coding highlights. And they can copy and paste code from the book applications into their own HTML and CSS files.

Book examples

Besides the book applications, the book presents dozens of examples that are also included in the download. These examples are all in a top-level folder named *book_examples*, where they're stored by figure number within chapter folder. Here again, the students can run the examples to see how they work, experiment with the code, and copy and paste code from the examples into their own HTML and CSS files.

Exercise starts

To help your students master the skills that are taught in each chapter, the book provides exercises at the end of each chapter. For each exercise, the students start from folders and files that contain some of the code that the exercise requires. That way, your students get the most practice in the least time. When downloaded, these files are stored in a top-level folder named *exercises*.

If you review the exercises, you'll see that they guide the students through the process of building several pages of a website. These exercises force the students to use all of the critical skills that are needed for website development. In fact, if your students can successfully do all of the exercises, they will be well on their way to a professional level of competence.

Exercise solutions

To help students get over any learning obstacles when they're working on their own, the download also provides the solutions to the exercises in a top-level folder named *solutions*. That way, the students can check the solutions to see how something is done whenever they're wasting time on what is likely to be a trivial coding mistake. We think that providing the solutions is the right approach didactically because it helps students learn faster and better.

We realize, however, that this makes it more difficult for an instructor to use the book exercises to test their students. That's why the instructor's materials also include a second set of exercises, a set of short exercises, and generic projects that can be used for testing the competency of students. The solutions for these exercises and an example of a completed project are also included, and we don't make those available to anyone other than instructors and trainers.

What's included in the instructor's materials

The instructor's materials for *Murach's HTML5 and CSS3 (3rd Edition)* will help any college instructor or corporate trainer run an effective course. Besides the materials in the student download, these resources include instructional objectives, test banks, PowerPoint slides, a second set of exercises that are analogous to the book exercises, short exercises for quizzes or tests in computer lab, and student projects. A summary of these materials follows.

Book applications, examples, exercises, and solutions

These are the same materials that your students can download from our website. We've included them in the instructor's materials so you can demonstrate and review the book applications, examples, and exercise solutions in class, without having to download them yourself.

Objectives

Since we believe that instructional objectives should be the start of any educational methodology, we provide a set of objectives for each chapter in the book. We prepared these objectives based on the principles presented by Robert F. Mager in his classic book, *Preparing Instructional Objectives*. As a result, our objectives describe the skills that your students or trainees should have when they complete a chapter, and you should be able to test whether they can apply those skills.

If you review the objectives, you'll see that the first objectives for each chapter are what we refer to as *applied objectives*. These ask the students to apply what they've learned as they develop web pages and websites. These of course are the critical objectives of a web development course, and they are best tested by having the students or trainees do exercises and projects like the ones that we provide.

After the applied objectives for each chapter, you'll find what we refer to as *knowledge objectives*. These objectives define skills like identifying, describing, and explaining the required concepts, terms, and procedures. These objectives determine whether your students are able to talk intelligently about the topics that are presented. And these objectives can be tested by the test banks that we provide.

To help you get the most from the instructional objectives, we have included them at the start of the PowerPoint slides for each chapter. As we see it, if you can convince your students that they only need to have the skills that are described by the objectives, their study becomes more focused and efficient.

Test banks

To test comprehension, you can use the test banks that we've created; there's one for each chapter in the book. We developed these test banks in ExamView, and we provide them in multiple formats: ExamView, Rich Text (RTF), the current Blackboard formats, and Respondus.

Each test bank provides questions that are designed to test the skills described by the objectives for that chapter, and each test question is designed to test the skill described by one objective. This keeps the promise to the students that they will only be expected to have the skills that are described by the objectives.

In our test banks, we use only completion and multiple-choice test questions because they have the highest validity. To us, that means that the students or trainees who get the best scores are also the ones with the best knowledge and skills. In contrast, matching and true/false questions have low validity, so we don't use them.

Halloween exercises and solutions

Because we provide the solutions for the book exercises in the student download for this book, the instructor's materials include a second set of exercises. These exercises are analogous to the book exercises, but this time the students build a website for a Halloween store.

These exercises are detailed in a document named *Halloween exercises.* There's a Word version of this document so you can modify the exercises if you want to, as well as a PDF version that you can distribute to your students if you don't want to make any modifications. We've also provided the starting folders and files for the exercises so you can distribute them to your students, as well as the folders and files for the solutions so you can demonstrate and review them in class.

Since both the book exercises and the Halloween exercises force the students to use all of the critical skills for web development, you can assign either set of exercises to your students. The only significant differences are (1) the students will have the solutions for the book exercises, (2) the book exercises are slightly more comprehensive than the Halloween exercises, and (3) the Halloween exercises provide less guidance than the book exercises (which you may prefer). The advantages of using the book exercises are (1) they are included in the book, and (2) the folders and files for the exercises are part of the student download. As a result, you don't have to distribute anything.

Because the book exercises are so easy to use, we suggest that you start by assigning them to your students. Then, if you want to test your students by having them do other exercises, you can use the Halloween exercises. For some exercises, you may want to distribute the solution for an earlier chapter so the students can start from there. If, for example, you want to use the exercise for chapter 6 as a test, you can first distribute the solution for chapter 5.

Short exercises for quizzes or tests

No matter which set of chapter exercises you assign, be sure to review the short exercises that are provided in the document named *Short exercises*. Each of these exercises is designed to test just one or two web development skills, and each is designed so it can be done in from 5 to 45 minutes. These exercises are presented in both Word and PDF documents, and they're also presented at the end of the PowerPoint slides for each chapter. As a result, you can often assign an exercise in computer lab just by displaying its PowerPoint slide.

One way to use these exercises is to provide quick reinforcement for something that you've just presented. But you can also use these exercises as quizzes or tests. For instance, short exercise 6-2 asks the students to switch the columns of a page so the sidebar moves from the left side to the right. If the students understand floating, margins, and padding, they can easily do this in 5 or 10 minutes. If they don't, this will help them realize what they need to know. Call it reinforcement, call it classroom stimulation, call it a quiz, or call it a test: We think the short exercises will help make any class more effective.

Projects

If your students do the book exercises or the Halloween exercises, they should develop the skills that they will need on the job. Then, the next step is to build websites without any guidance. That is the final test of their ability to apply what they've learned.

To that end, we provide a document named *Projects* with three projects that give general specifications for small, 3-page websites. However, these projects don't specify the contents for the websites. As a result, the students have to choose their own. This means the websites developed by the students should have some general similarities, but each one should be unique in terms of design and content.

After the students develop the initial versions of their websites based on the skills of section 1, they can enhance them by using the skills of sections 2 and 3. Ideas for doing that are also provided in the project descriptions.

As with the Halloween exercises and the short exercises, we provide the project descriptions in a Word document as well as a PDF, so it's easy for you to modify them. That way, you can make them easier or harder so they're more appropriate for your class.

Of course, we can't provide solutions to the projects because each student's solution will be different. However, we do provide one example of a project solution that you can use to demonstrate what a good solution should look like. This solution is used as an example in the *Projects* document.

PowerPoint slides

The PowerPoint slides present all of the critical information that's presented in the figures of the book. That includes all of the screen shots, diagrams, tables, and code that you may want to review in class. As a result, these slides make it easy for you to review any of the skills that your students have difficulty with.

Beyond the book information, the slides for each chapter start with the instructional objectives, so you can review them in class. And they end with the screen shots for the book exercise or exercises, plus the screen shots for the short exercises and the Halloween exercises for the chapter. That makes it easy for you to answer questions and provide additional information about these exercises.

If you want to modify any of the PowerPoint slides, you should know that we prepared them by abridging and editing the Word text for each figure and copying it into PowerPoint slides. As a result, you can't use PowerPoint to modify the text in the normal way. Instead, you need to double-click on the text for a slide to open it in Word, make modifications to the text in Word, and click outside the text to return to PowerPoint. You can also use PowerPoint in the normal way to add slides, delete slides, or add your own presentation notes to our slides.

How to get started

You can get the instructor's materials for our book as a download from our website or on an Instructor's CD. If you download the materials, you'll need to install them on your computer as described below. If you get the CD, you can do a preliminary review of our materials by opening and reviewing the files on the CD. But if you decide to adopt the book, you'll want to install the folders and files on your computer as described below. Once the installation is done, you can do a thorough review of all of the materials that are provided.

In particular, you'll want to run some of the book applications, examples, exercise solutions, short exercise solutions, and the one project solution to see the level of competence that our book develops. You'll also want to click through some of the PowerPoint slides to see how they can help you review and reinforce the information that's presented in the book.

To help you find what you're looking for, the entire file structure for the instructor's materials is shown on the next page.

How to install the folders and files on a Windows system

1. Find the .exe file that you downloaded from our website *or* the file named Install.exe that's in the root of the Instructor's CD.

2. Double-click on the .exe file and respond to the dialog boxes that follow. This will install the folders and files onto your C drive in a folder structure that starts with

   `c:\murach\html5_css3_2`

How to install the folders and files on a Mac

1. Find the .zip file that you downloaded from our website *or* the file named MacInstall.zip that's in the root of the Instructor's CD.

2. Drag the .zip file to wherever you want to store the instructor's files on your Mac.

3. Double-click on the .zip file, and it will unzip the files and folders into a folder structure that starts with

   `html5_css3_2`

The student folders and files that get installed

html5_css3_2\ student_download	Contents
book_apps	One subfolder for each chapter, containing the folders and files for the sample application(s) in that chapter.
book_examples	One subfolder for each chapter, containing the folders and files for the coding examples in that chapter. The file names start with the number of the related figure.
exercises	The subfolders and files that are needed for starting each exercise in the book.
solutions	The subfolders and files that provide the solutions to the book exercises. The folder structure is the same as it is for the exercises.

The instructor folders and files that get installed

html5_css3_2\ instructors	Contents
Instructor's summary.pdf	This document in PDF format.
Objectives.docx Objectives.pdf	A document in both Word and PDF formats with the instructional objectives for all chapters (the individual chapter objectives are repeated in the chapter slides).
halloween\Halloween exercises.docx halloween\Halloween exercises.pdf	A document in both Word and PDF formats that presents a complete set of exercises, like the book exercises, that build a website for a Halloween store.
halloween\halloween_exercises	The subfolders and files that the students need for doing the Halloween exercises. If you are going to assign these exercises, you need to distribute this folder to your students.
halloween\halloween_solutions	The subfolders and files that present the solutions to the Halloween exercises.
short\Short exercises.docx short\Short exercises.pdf	A document in both Word and PDF formats that presents short exercises that take from 5 to 45 minutes each. These can be used in computer lab for concept reinforcement, quizzes, or tests.
short\short_exercises	The subfolders and files that the students need for doing the short exercises. You decide which of these you want to distribute to your students.
short\short_solutions	The subfolders and files that present the solutions to the short exercises.
projects\Projects.docx projects\Projects.pdf	A document in both Word and PDF formats that describes three generic projects.
project\project_solution	The subfolders and files that present one example of an acceptable solution for a project.
slides	One PowerPoint file for each chapter that starts with the objectives and ends with the screen shots for the book exercises, short exercises, and Halloween exercises.
test_banks	ExamView, RTF, Blackboard, and Respondus subfolders that contain one test bank for each chapter.

Technical details that you should be aware of

As we developed the applications, examples, and exercises for our HTML5 book and its instructor's materials, we discovered two idiosyncrasies that you and your students should be aware of.

Some web pages for chapters 12 and 16 may not work right when run from Aptana

As chapter 12 points out, embedded videos don't always work when run from Aptana. In addition, as chapter 16 points out, carousels that use the bxSlider plugin don't work when run from Aptana. These are just things to keep in mind because it's easy to forget them when all of the other applications run just fine from Aptana.

Web pages stored on a file server may not display correctly when viewed in IE

To our surprise, we also found that pages stored on our file server (not web server) aren't formatted right when they're run in IE. However, they are formatted correctly when we run them from our own computers. Since your students should be working with files on their own computers, this shouldn't be an issue for them. But this too is something to be aware of.

Any comments?

If you have any comments about our book or its instructional materials, we would be delighted to hear from you. If you discover any errors in our applications, examples, or solutions, we would appreciate hearing about them. And if you want to let us know that you're going to adopt our book for your course, that would make our day.

Just e-mail us at the addresses below. But whether or not we hear from you, we want to thank you for your interest in our HTML5 and CSS3 book.

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