# Instructor's Summary for Murach's HTML5 and CSS3 (4th Edition)

The instructor's materials for *Murach's HTML5 and CSS3 (4th Edition)* will help any college instructor or corporate trainer run an effective course. This summary introduces these materials 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. This structure is important because it gives you 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 20 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: The essential concepts and skills

The eight chapters of section 1 present a professional subset of HTML5 and CSS3 that includes all of the essential skills for developing websites, including how to use media queries and fluid layouts for Responsive Web Design. This section is an effective course all by itself.

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 select the other chapters that you want to include in your course...and you can teach them in whatever sequence you think is best for your course.

# Section 2: Page layout and Responsive Web Design

The two chapters in section 2 present the newer CSS3 features for page layout and Responsive Web Design. Chapter 9 shows how to use Flexible Box Layout to do that, and chapter 10 shows how to use Grid Layout. Of the two, Grid Layout is the newer, more powerful feature, so it's the one that should be taught if you only have time to assign one of these chapters.

# Section 3: More HTML5 and CSS3 skills as you need them

The six chapters of section 3 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.

## Section 4: Web design and deployment

Section 4 of the book has one chapter on designing a website and one on deploying a website. Because these chapters are independent modules, you can assign either of them any time after your students complete section 1. In fact, we recommend that you assign chapter 17 on web design soon after they finish section 1. That way, they'll clearly see the relationship between design and implementation.

## Section 5: Other skills for professional web developers

The first chapter in this section, chapter 19, shows how JavaScript and jQuery are used to enhance a website. Then, chapter 20 presents some of the third-party tools that professional developers use on the job: Emmet, Sass, Bootstrap, Git, GitHub, Node.js, and Gulp.js. These chapters show your students how important JavaScript is to client-side development and also that there's always more to learn in this industry.

#### Our suggestions for using this book

Once you understand the modular structure of this book, you can select the chapters that are right for your course and you can decide on the best sequence for teaching them. In case you're interested, here are a few of our suggestions.

First, consider teaching chapter 17, "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 3 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.

Third, for a change of pace, mix in either of the chapters in section 5. Since students enjoy adding JavaScript and jQuery enhancements to their web pages, it's easy to get them interested in chapter 19. And chapter 20 can be a content-only, no-exercise interlude that puts the focus on the complexities in the real world.

# 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 19. 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, especially when the book presents only 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 means you can't use the book exercises to test your students. That's why the instructor's materials also include Halloween and Shape Up! case studies, which provide two more sets of exercises that are similar to those in the book. The instructor's materials also include short exercises and generic projects that can be used for testing the competency of students. And none of the solutions for these exercises and projects are available to the students.

# What's included in the instructor's materials

The instructor's materials for our HTML and CSS book are designed to save you time in preparing and running an effective course based on the text. Besides the materials in the student download, these resources include instructional objectives, test banks, PowerPoint slides, exercises for two case studies 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 separately.

#### 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 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 your students realize 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), and the current Blackboard formats (which can be imported into Canvas or D2L).

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 multiple-choice test questions because they have the highest validity and they're easiest to score. 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 case study and solutions

Because we provide the solutions for the book exercises in the student download for this book, the instructor's materials include a Halloween case study that provides a second set of exercises. These exercises are similar 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*. We also provide 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.

### Shape Up! case study and solutions

The Shape Up! case study is like the Halloween case study, but this time it's a website that provides health information. This case study provides a third set of exercises and solutions, so you can alternate between the Halloween and Shape Up! case studies from one term to the next.

#### 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.

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 a quiz, or call it a test: The short exercises will help make any course more effective.

#### Projects

If your students do the book exercises, the Halloween exercises, or the Shape Up! exercises, they will develop the skills that they will need for the course and 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, 3, and 5. Ideas for doing that are also provided in the project descriptions.

Although we can't provide solutions to the projects because each student's solution will be different, 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, 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 short exercises, in case you want to use them as the basis for an exercise or test in computer lab.

# About the Lab Manual for this book

Our Lab Manual combines the objectives, book exercises, Halloween case study, Shape Up! case study, and projects, along with the chapter summaries and term lists from the book itself, in a single document on a chapter-by-chapter basis. This Manual is available as a VitalSource eBook and as part of a VitalSource bundle that includes the book and Lab Manual.

A partial Lab Manual in PDF for just the first 4 chapters of the book is included in the instructor's materials. If you review this document, you'll quickly see that we offer all the supporting materials that you need for a successful course...without any counterproductive busywork. If you like what you see, please request the complete VitalSource version.

# How to get started

You can get the instructor's materials for our book as a download from our website. Then, you can install them 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\_4

# 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\_4

## The main instructor folders and files that get installed

These are the primary instructor's materials. The PDFs for the exercises and projects give the coding specifications and narrative that your students will need to do the work. You can distribute these PDFs along with the objectives as you see fit, or use the Lab Manual to distribute them all in a single package.

html5_css3_4\instructors	Contents
Instructor's summary.pdf	This document in PDF format.
slides	One PowerPoint file for each chapter that starts with the objectives and ends with the screen shots for the short exercises.
test_banks	ExamView, RTF, and Blackboard subfolders that contain one test bank for each chapter.
Objectives.pdf	A PDF document that contains the instructional objectives for all chapters (the individual chapter objectives are repeated in the chapter slides).
Halloween exercises.pdf	A PDF document that presents a complete set of exercises, like the book exercises, that build a website for a Halloween store.
Shape Up exercises.pdf	A PDF document that presents a complete set of exercises, like the book exercises, that build a website for health information.
Short exercises.pdf	A PDF document 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.
Projects.pdf	A PDF document that describes three generic projects.
Partial Lab Manual.pdf	A partial Lab Manual in PDF format for the first 4 chapters of the book. If you review it, you can decide whether you want your students to get the complete VitalSource Lab Manual.

## The solution files that get installed

These folders contain the subfolders and files that provide the solutions to the Halloween, Shape Up!, and short exercises, plus a project solution that illustrates what a good solution might look like. You can use these folders and files to demonstrate the solutions in class.

html5_css3_4\instructors	Contents
halloween\halloween_solutions	The subfolders and files that present the solutions to the Halloween exercises.
shape_up\shape_up_solutions	The subfolders and files that present the solutions to the Shape Up! exercises.
short\short_solutions	The subfolders and files that present the solutions to the short exercises.
project\project_solution	The subfolders and files that present one example of an acceptable solution for a project.

## The student folders and files that get installed

These are the files that the student can get from the Downloads tab for the book on our retail website. But if you prefer, you can distribute these files to the students.

html5_css3_4\student_download	Contents
book_apps	One subfolder for each chapter, containing the folders and files for the applications 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 exercise folders that you need to distribute

These folders contain the subfolders and files that your students will need for doing the Halloween, Shape Up!, and short exercises. So if you're going to assign any of these exercises, you need to distribute the related folders to your students.

html5_css3_4\instructors	Contents
halloween\halloween_exercises	The subfolders and files that the students need for doing the Halloween exercises.
shape_up\shape_up_exercises	The subfolders and files that the students need for doing the Shape Up! exercises to your students.
short\short_exercises	The subfolders and files that the students need for doing the short exercises.

# 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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