

FRONT-END WEB DEVELOPER

Part A: Student Syllabus Program Overview (V2.0)

(40 Lesson 5/13/2019)

TABLE OF CONTENTS

Course Description	A3
Course Objectives.....	A3
Course Materials	A3
Expectations for the Student.....	A4
Teaching Methods Employed	A4
Homework & Assignments – Reading ONLY.....	A4
Evaluation and Grade Determination.....	A4
Lesson – Chapter Summary	A5
Course in Review	A6
Detailed Lesson Plans	A17

COURSE DESCRIPTION

The Front-End Web Developer program is designed to prepare students to function as web application developers in multiple technical, business, and healthcare settings. Web developers serve roles with job titles such as Web Site Developers, Web Applications Developers, Web Designers, and Web Masters. The purpose of this program is to prepare students to design and develop websites, design and develop web applications so that users can perform specific tasks, and maintain websites so they continue to meet user needs.

This course covers basic web concepts and web coding concepts for the student new to web development. Part A covers basic web coding using HTML. Part B provides an overview of CSS, and Part C introduces JavaScript. There are additional optional topics for students who want to explore more advanced Web development concepts.

COURSE OBJECTIVES

Upon completing this course, you will be able to:

- Use HTML, CSS, and JavaScript to perform front-end development tasks.

COURSE MATERIALS

This course uses instructor-led classroom lecture, course videos, and activities. Students should complete the activities in the textbook plus coding exercises and participate in the instructor-led classroom labs, discussions, and activities.

Title: *Sam's HTML, CSS, and JavaScript All in One* ISBN: 978-0-672-33714-7

Author: Julie Meloni

Web Tools/Software: A Web Browser, JavaScript, and others as designated by the instructor

Web Development Reference Guides "Cheat sheets" – Quick handy reference guides which outline certain functions and other items related to HTML, CSS, Visual Studio Code (Windows), Visual Studio Code (MAC), Java Script and HTML5

Chapters 1-19 are covered in 40 Lessons. Chapters 20 through 28 are considered more "Advanced Chapters" and may be covered (optional only) as time permits at the end of the program. Chapters 1 through 19 focusing on HTML, CSS and JavaScript are important to a student's foundational understanding. Further, in preparation for the Microsoft MTA 98-375 certification exam - at end of the program the additional 10 Lessons on HTML 5 plus the first 40 lessons (which now covers chapters 1 through 19 only) include all the material necessary to sit for and successfully pass the MTA 98-375 exam. We will be providing follow up "Supplemental Optional Information" for students which will include a review of Chapters 20 through 28 if the instructor and or students would like to review this additional optional information

EXPECTATIONS FOR THE STUDENT

1. Students are expected to arrive for class on time
2. Absent students must contact their instructor prior to class time
3. Absent students will be expected to make up missed class work/assignments on their own time
4. Students will follow the rules and regulations of the facility
5. No student shall disrupt a class or interfere with the session or the learning or the other students
6. The Instructor will be the student's contact for all academic questions or concerns
7. Cell phones and pagers are to be turned off or to the vibrator mode while in class
8. Any student participating in any act of academic dishonesty, such as cheating, plagiarism, or collusion will be considered for dismissal from the program. Once dismissed, no condition of re-entrance will be considered.

TEACHING METHODS EMPLOYED

Lecture, class discussion, group discussions, critical thinking exercises, lab practice, videos, and application activities related to the content. This course also includes hands on instruction in a variety of modalities. This program includes several helpful video presentations that augments the programs curriculum.

HOMEWORK AND ASSIGNMENTS – READING ONLY

This program includes certain reading assignments and check your understand/practice quizzes which are to be completed by students during out of class time. Note: There are no required student online activities which would require a laptop at home throughout the duration of the course. All exercises and activities will be completed with the laptops during class time. To be clear, there is no requirement for students to have online access to any websites and/or materials in the classroom or at home to be successful in this program.

EVALUATION AND GRADE DETERMINATION

Student performance will be evaluated utilizing the following analysis:

- Attendance and class/Labs/Activities (70%)
- Quizzes and Exams (30%) (to be announced by instructor)

It is vital that each student recognize that this class is a **pass/fail** class with **no** exceptions.

LESSON – CHAPTER SUMMARY

Lesson	Chapter Number	Chapter Title Textbook: <i>Sam's HTML, CSS, and JavaScript All in One</i>
1	1	Understanding How the Web Works
2	1	
3	2	Structuring an HTML Document
4	2	
5	3	Understanding Cascading Style
6	3	
7	6	Working with Fonts, Text Blocks, Lists, and Tables
8	6	
9	7	Using External and Internal Links
10	7	
11	8	Working with Colors, Images, and Multimedia
12	8	
13	6, 7, 8 Review	
14	6, 7, 8 Review	Also - Quiz #1 (Lessons 1-14)
15	9	Working with Margins, Padding, Alignment, and Floating
16	9	
17	10	Understanding the CSS Box Model and Positioning
18	10	
19	11	Using CSS to Do More with Lists, Text, and Navigation
20	11	
21	12	Creating Fixed or Liquid Layouts
22	12	
23	4	Understanding JavaScript
24	4	
25	5	Validating and Debugging Your Code
26	5	
27	13	Understanding Dynamic Websites and HTML5 Applications
28	13	
29	14	Getting Started with JavaScript Programming
30	14	
31	15	Working with the Document Object Model (DOM)
32	15	
33	16	Using JavaScript Variables, Strings, and Arrays
34	16	
35	17	Using JavaScript Functions and Objects
36	17	
37	18	Controlling Flow with Conditions and Loops
38	18	
39	19	Responding to Events
40	19	Also - Quiz #2 (Lessons 15-40)

COURSE IN REVIEW

Part A: HTML Basics - Lessons 1-14

LESSON #1: Introduction and Understanding How the Web WorksA18

Textbook Reading: **Chapter 1: Understanding How the Web Works (pp. 1-24)**

Presentation: Instructor Presentation

Course Videos: *Watch the following videos.*

INTRODUCING HTML

- 01.01 Understand the basics of HTML
- 01.02 Choose a tool for writing HTML
- 01.03 Post HTML to a hosting service
- 01.04 Define HTML5
- 01.05 Summary

Labs/Activities: none

Homework: none

LESSON #2: Introduction and Understanding How the Web Works, cont.....A19

Textbook Reading: **Chapter 1: Understanding How the Web Works (pp. 1-24), cont.**

Presentation: Instructor Presentation

Course Videos: *Continue with videos.*

Labs/Activities: Complete Chapter 1 - Chapter End-of-Chapter Exercises (p. 24)

Homework: Complete Chapter 1 - Chapter "Check Your Understanding" (p. 23)

Read Chapter 2

LESSON #3: Structuring an HTML Document.....A20

Textbook Reading: **Chapter 2: Structuring an HTML Document (pp. 25-29)**

Handout: **Handout 1: Building an HTML Page**

Course Videos: *Watch the following videos.*

BUILDING A BASIC HTML DOCUMENT

- 02.01 Build a simple web page
- 02.02 Recognize the standard HTML tags for every web page
- 02.03 Add paragraphs and line breaks
- 02.04 Create HTML headlines
- 02.05 Use semantic tags
- 02.06 Write links to other web pages
- 02.07 Summary

Labs/Activities: none

Homework: none

LESSON #4: More HTMLA21

Textbook Reading:	Chapter 2: Structuring an HTML Document, cont. (pp. 30-51)
Course Videos:	<i>Continue with videos.</i>
Labs/Activities:	Complete Chapter 2 - Chapter Try It Yourself Activities (p. 33, 34) and End-of-Chapter Exercises (p. 54)
Homework:	Complete Chapter 2- Chapter “Check Your Understanding” (pp. 52-53) Read Chapter 3

LESSON #5: Understanding Cascading Style Sheets.....A22

Textbook Reading:	Chapter 3: Understanding Cascading Style Sheets (pp. 55-74)
Handout:	Handout 2: Using CSS
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>

INTRODUCING CSS

- 03.01 Define CSS
- 03.02 Use inline styles
- 03.03 Write a basic CSS style sheet
- 03.04 Use internal and external style sheets
- 03.05 Add CSS classes and IDs
- 03.06 Understanding the basics of CSS3
- 03.07 Summary

Labs/Activities:	none
Homework:	none

LESSON #6: Understanding Cascading Style Sheets, cont.A23

Textbook Reading:	Chapter 3: Understanding Cascading Style Sheets (pp. 55-74), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Continue with videos.</i>
Labs/Activities:	Complete Chapter 3 - Chapter Try It Yourself Activities (p. 62) and End-of-Chapter Exercises (p. 75)
Homework:	Complete Chapter 3 - Chapter “Check Your Understanding” (p. 75) Read Chapter 6

LESSON #7: Working with Fonts, Text Blocks, Lists, and TablesA24

Textbook Reading:	Chapter 6: Working with Fonts, Text Blocks, Lists, and Tables (pp. 121-164)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>

BUILDING AND STYLING HTML TEXT

- 06.01 Align text
- 06.02 Write ordered and unordered lists
- 06.03 Create definition lists
- 06.04 Add two types of quotations
- 06.05 Summary

Labs/Activities:	none
Homework:	none

LESSON #8: Working with Fonts, Text Blocks, Lists, and Tables, cont.....A25	
Textbook Reading:	Chapter 6: Working with Fonts, Text Blocks, Lists, and Tables (pp. 121-164), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Continue with videos.</i>
Labs/Activities:	Complete Chapter 6 - Chapter Try It Yourself Activities (p. 122) and End-of-Chapter Exercises (pp. 166-167)
Homework:	Complete Chapter 6 - Chapter “Check Your Understanding” (p. 165) Read Chapter 7
LESSON #9: Using External Links, Internal Links, and Semantic Elements.....A26	
Textbook Reading:	Chapter 7: Using External and Internal Links (pp. 169-186)
Handout:	Handout 3: Adding Meaning with HTML5 Sectioning
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	UNDERSTANDING HTML5 SEMANTIC ELEMENTS
	<ul style="list-style-type: none"> • 07.01 Recognize sectioning elements • 07.02 Add figures • 07.03 Include document headers and footers • 07.04 Create HTML5 outlines • 07.05 Summary
Labs/Activities:	none
Homework:	none
LESSON #10: Using External Links, Internal Links, and Semantic Elements, cont.A27	
Textbook Reading:	Chapter 7: Using External and Internal Links (pp. 169-186), cont.
Course Videos:	<i>Continue with videos.</i>
Labs/Activities:	Complete Chapter 7 - Chapter Try It Yourself Activities (p. 171) and End-of-Chapter Exercises (p. 188)
Homework:	Chapter 7 - Chapter “Check Your Understanding” (p. 187) Read Chapter 8
LESSON #11: Working with Colors, Images, and MultimediaA28-29	
Textbook Reading:	Chapter 8: Working with Colors, Images, and Multimedia (pp. 189-246)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	ADDING IMAGES AND MULTIMEDIA
	<ul style="list-style-type: none"> • 08.01 Add images to web pages • 08.02 Position images • 08.03 Use background images • 08.04 Link to documents and PDFs • 08.05 Add HTML5 video and audio • 08.06 Make multimedia responsive • 08.07 Summary
Labs/Activities:	none
Homework:	none

LESSON #12: Building and Using HTML FormsA30	
Textbook Reading:	Chapter 8: Working with Colors, Images, and Multimedia (pp. 189-246), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> BUILDING AND USING HTML FORMS <ul style="list-style-type: none"> • 08.08 Create a basic form • 08.09 Use HTML5 input • 08.10 Add in other form input fields • 08.11 Validate forms • 08.12 Submit form data • 08.13 Summary
Labs/Activities:	Complete Chapter 8 - Chapter Try It Yourself Activities (p. 201, 202, 212, 228, 232) and End-of-Chapter Exercises (p. 248)
Homework:	Complete Chapter 8 - Chapter “Check Your Understanding” (p. 247)
LESSON #13: HTML ReviewA31	
Textbook Reading:	Review Chapters 6, 7 and 8
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> HTML REVIEW <ul style="list-style-type: none"> • R.01 Differentiate among HTML versions • R.02 Define hypertext links and apply different types of URLs • R.03 Understand how block-level (paragraph-like) elements differ from other HTML elements • R.04 Use headings and basic paragraphs • R.05 Understand the difference between div and span • R.06 Create bulleted and numbered lists • R.07 Understand how inline (font-like or text-level) elements differ from other HTML elements • R.08 Summary
Labs/Activities:	Lab Exercise 1: HTML Basics, Part 1 (Check your results with the Exercise Solution)
Homework:	Complete all activities as needed.
LESSON #14: HTML Review, cont.A32	
Textbook Reading:	Review Chapters 6, 7, and 8
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> HTML REVIEW, CONT. <ul style="list-style-type: none"> • R.09 Use tables to present tabular information or to align sections of text • R.10 Use forms to send data to servers • R.11 Collect user data with form input elements • R.12 Apply a few miscellaneous elements • R.13 Summary
Labs/Activities:	Lab Exercise 2: HTML Basics, Part 2 (Check your results with the Exercise Solution)
Homework:	Read Chapter 3
Assessment:	Quiz 1 (Covers Lessons 1-14)

Part B: CSS Basics- Lessons 15-22

LESSON #15: Working with Margins, Padding, Alignment, and Floating	A33
Textbook Reading:	Chapter 9: Working with Margins, Padding, Alignment, and Floating (pp. 249-266)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> CSS FOR JAVASCRIPT DEVELOPERS - A CRASH COURSE <ul style="list-style-type: none">• 09.01 Load and apply styles• 09.02 Match page elements with CSS selectors• 09.03 Understand the idea of CSS properties• 09.04 Assign colors and fonts with CSS properties
Labs/Activities:	none
Homework:	none
LESSON #16: Working with Margins, Padding, Alignment, and Floating, cont.	A34
Textbook Reading:	Chapter 9: Working with Margins, Padding, Alignment, and Floating (pp. 249-266), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Continue with videos.</i>
Labs/Activities:	Complete Chapter 9 - End-of-Chapter Exercises (p. 267) Lab Exercise 3: CSS Basics (Check your results with the Exercise Solution)
Homework:	Complete Chapter 9 - Chapter “Check Your Understanding” (p. 267) Read Chapter 10
LESSON #17: Understanding CSS Box Model and Positioning.	A35
Textbook Reading:	Chapter 10: Understanding the CSS Box Model and Positioning (pp. 269-282)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> CSS FOR JAVASCRIPT DEVELOPERS - A CRASH COURSE, cont. <ul style="list-style-type: none">• 10.01 Define spacing with the CSS box model• 10.02 Explore a few examples• 10.03 Summary
Labs/Activities:	none
Homework:	none
LESSON #18: Understanding CSS Box Model and Positioning, cont.	A36
Textbook Reading:	Chapter 10: Understanding the CSS Box Model and Positioning (pp. 269-282), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Continue with videos.</i>
Labs/Activities:	Complete Chapter 10 - End-of-Chapter Exercises (p. 283) Complete Lab Exercise 3: CSS Basics (Check your results with the Exercise Solution)
Homework:	Complete Chapter 10 - Chapter “Check Your Understanding” (p. 283) Read Chapter 11

LESSON #19: Using CSS to Do More with Lists, Text, and Navigation	A37
Textbook Reading:	Chapter 11: Using CSS to Do More with Lists, Text, and Navigation (pp. 285-311)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	There are no Videos for this chapter
Labs/Activities:	none
Homework:	none
LESSON #20: Using CSS to Do More with Lists, Text, and Navigation, cont.....	A38
Textbook Reading:	Chapter 11: Using CSS to Do More with Lists, Text, and Navigation (pp. 285-311), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	There are no Videos for this chapter
Labs/Activities:	Complete Chapter 11 - Chapter Try It Yourself Activities (p. 313) and End-of-Chapter Exercises (p. 313-314)
Homework:	Complete Chapter 11 - Chapter “Check Your Understanding” (p. 313) Read Chapter 12
LESSON #21: Creating Fixed or Liquid Layouts	A39
Textbook Reading:	Chapter 12: Creating Fixed or Liquid Layouts (pp. 315-333)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	There are no Videos for this chapter
Labs/Activities:	none
Homework:	none
LESSON #22: Creating Fixed or Liquid Layouts, cont.....	A40
Textbook Reading:	Chapter 12: Creating Fixed or Liquid Layouts (pp. 315-333), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	There are no Videos for this chapter
Labs/Activities:	Complete Chapter 12 - End-of-Chapter Exercises (p. 335)
Homework:	Complete Chapter 12 Chapter “Check Your Understanding” (p. 334) Read Chapter 13

Part C: JavaScript Basics- Lessons 23-40

LESSON #23: Understanding JavaScriptA41

Textbook Reading:	Chapter 4: Understanding JavaScript (pp. 77-92)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> JAVASCRIPT - GETTING STARTED <ul style="list-style-type: none">• 04.01 Learn how JavaScript is used• 04.02 Practice interactivity with JavaScript (simplist version)• 04.03 Practice interactively with JavaScript (more complex but more powerful version)• 04.04 Define, modify, and access variables• 04.05 Apply operators• 04.06 Define and call functions• 04.07 Summary
Labs/Activities:	none
Homework:	none

LESSON #24: Understanding JavaScript, cont.A42

Textbook Reading:	Chapter 4: Understanding JavaScript (pp. 77-92), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Continue with videos.</i>
Labs/Activities:	Complete Chapter 4 - End-of-Chapter Exercises (p. 94) Lab Exercise 4: Getting Started (Check your results with the Exercise Solution)
Homework:	Complete Chapter 4 - Chapter “Check Your Understanding” (p. 93) Read Chapter 5

LESSON #25: Validating and Debugging Your CodeA43

Textbook Reading:	Chapter 5: Validating and Debugging Your Code (pp. 95-117)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> There are no Videos for this chapter
Labs/Activities:	none
Homework:	none

LESSON #26: Validating and Debugging Your Code, cont.....A44

Textbook Reading:	Chapter 5: Validating and Debugging Your Code (pp. 95-117), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Complete the following videos.</i> There are no Videos for this chapter
Labs/Activities:	Complete Chapter 5 - End-of-Chapter Exercises (p. 119)
Homework:	Complete Chapter 5 - Chapter “Check Your Understanding” (p. 118) Read Chapter 14

LESSON #27: Understanding Dynamic Websites and HTML5 ApplicationsA45	
Textbook Reading:	Chapter 13: Understanding Dynamic Websites and HTML5 Applications (pp. 337-350)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> There are no Videos for this chapter
Labs/Activities:	none
Homework:	none
LESSON #28: Understanding Dynamic Websites and HTML5 Applications, cont.....A46	
Textbook Reading:	Chapter 13: Understanding Dynamic Websites and HTML5 Applications (pp. 337-350), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> There are no Videos for this chapter
Labs/Activities:	Complete Chapters 13 - End-of-Chapter Exercises (pp. 351-352)
Homework:	Complete Chapters 13 - Chapter “Check Your Understanding” (p. 351) Read Chapter 14
LESSON #29: Getting Started with JavaScript ProgrammingA47	
Textbook Reading:	Chapter 14: Getting Started with JavaScript Programming (pp. 353-364)
Handout:	Handout 4: Jumping into jQuery and JavaScript Syntax
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i> JAVASCRIPT BASIC SYNTAX - PART 1 <ul style="list-style-type: none"> • 14.01 Execute code conditionally • 14.02 Execute code • 14.03 Format code so that it can be understood, edited, and maintained • 14.04 Call functions for the Math class • 14.05 Embed JavaScript in HTML • 14.06 Choose among HTML versions • 14.07 Summary
Labs/Activities:	none
Homework:	none
LESSON #30: Getting Started with JavaScript Programming, cont.A48	
Textbook Reading:	Chapter 14: Getting Started with JavaScript Programming (pp. 353-364), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Continue with videos.</i>
Labs/Activities:	Complete Chapter 14 - End-of-Chapter Exercises (p. 366) Lab Exercise 5: Basic Syntax 1 (Check your results with the Exercise Solution)
Homework:	Complete Chapter 14 - Chapter “Check Your Understanding” (p. 365) Read Chapter 15

LESSON #31: Working with the Document Object Model (DOM).....	A49
Textbook Reading:	Chapter 15: Working with the Document Object Model (DOM) (pp. 367-391)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	There are no Videos for this chapter
Labs/Activities:	none
Homework:	none
LESSON #32: Working with the Document Object Model (DOM), cont.	A50
Textbook Reading:	Chapter 15: Working with the Document Object Model (DOM) (pp. 367-391), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	There are no Videos for this chapter
Labs/Activities:	Complete Chapter 15 - End-of-Chapter Exercises (p. 394)
Homework:	Complete Chapter 15 - Chapter “Check Your Understanding” (pp. 392-393) Read Chapter 16
LESSON #33: Using JavaScript Variables, Strings, and Arrays.....	A51
Textbook Reading:	Chapter 16: Using JavaScript Variables, Strings, and Arrays (pp. 395-414)
Handout:	Handout 5: Regular Expressions
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	JAVASCRIPT BASIC SYNTAX - PART 2
	<ul style="list-style-type: none"> • 16.01 Define and access arrays • 16.02 Create, compare, and call methods on strings • 16.03 Recognize patterns with regular expressions • 16.04 Call methods on arrays • 16.05 Summary
Labs/Activities:	none
Homework:	none
LESSON #34: Using JavaScript Variables, Strings, and Arrays, cont.	A52
Textbook Reading:	Chapter 16: Using JavaScript Variables, Strings, and Arrays (pp. 395-414), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Continue with videos.</i>
Labs/Activities:	Complete Chapter 16 - Chapter Try It Yourself Activities (p. 412, 413, 414) and End-of-Chapter Exercises (p. 417)
	Lab Exercise 6: Basic Syntax 2 (Check your results with the Exercise Solution)
Homework:	Complete Chapter 16 - Chapter “Check Your Understanding” (pp. 416-417) Read Chapter 17

LESSON #35: Using JavaScript Functions and Objects.....A53

Textbook Reading: Chapter 17: Using JavaScript Functions and Objects (pp. 419-441)

Presentation: Instructor Presentation

Course Videos: Watch the following videos.

JAVASCRIPT - FUNCTIONS

- 17.01 Understand how the use of functions in JavaScript differs from other languages
- 17.02 Assign functions to variables, arrays, and other data structures
- 17.03 Pass functions to other functions
- 17.04 Return functions from functions
- 17.05 Create anonymous functions
- 17.06 Capture local variables (make closures)
- 17.07 Use the apply method
- 17.08 Summary

JAVASCRIPT - OBJECTS

- 17.09 Define, instantiate, and access objects
- 17.10 Define methods with the prototype property
- 17.11 Use namespaces to avoid name conflicts
- 17.12 Create anonymous objects
- 17.13 Create and parse JSON
- 17.14 Apply a few other object "tricks"
- 17.15 Summary

Labs/Activities: none

Homework: none

LESSON #36: Using JavaScript Functions and Objects, cont.A54

Textbook Reading: Chapter 17: Using JavaScript Functions and Objects (pp. 419-441), cont.

Presentation: Instructor Presentation

Course Videos: Continue with videos.

Labs/Activities: Complete Chapter 17 - End-of-Chapter Exercises, cont.

Lab Exercise 7: Functional Programming – Basic Exercises (Check your results with the Exercise Solution)

Homework: Complete Chapter 17 - Chapter “Check Your Understanding”, cont.

Read Chapter 18

LESSON #37: Controlling Flow with Conditions and LoopsA55

Textbook Reading: Chapter 18: Controlling Flow with Conditions and Loops (pp. 445-462)

Presentation: Instructor Presentation

Course Videos: Watch the following videos.

There are no Videos for this chapter

Labs/Activities: none

Homework: none

LESSON #38: Controlling Flow with Conditions and Loops, cont.	A56
Textbook Reading:	Chapter 18: Controlling Flow with Conditions and Loops (pp. 445-462), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos.</i>
	There are no Videos for this chapter
Labs/Activities:	Complete Chapter 18 - Chapter Try It Yourself Activities (pp. 460-462) and End-of-Chapter Exercises (p. 464)
Homework:	Complete Chapter 18 - Chapter “Check Your Understanding” (pp. 463-464) Read Chapter 19
LESSON #39: Responding to Events.....	A57
Textbook Reading:	Chapter 19: Responding to Events (p. 465-485)
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos,</i>
	There are no Videos for this chapter
Labs/Activities:	none
Homework:	none
LESSON #40: Responding to Events, cont.	A58
Textbook Reading:	Chapter 19: Responding to Events (p. 465-485), cont.
Presentation:	Instructor Presentation
Course Videos:	<i>Watch the following videos,</i>
	There are no Videos for this chapter
Labs/Activities:	Complete Chapter 19 – End-of-Chapter Exercises (p. 487)
Homework:	Complete Chapter 19 - Chapter “Check Your Understanding” (p. 486)
Assessment:	Quiz 2 (Covers Lessons 15-40)

Front End Web Developer (V2.0)

Lesson Plans (version 05/13/2019)

Lessons #1-40

Part A: HTML Basics - Lessons 1-14

LESSON #1: INTRODUCTION AND UNDERSTANDING HOW THE WEB WORKS

Textbook: Chapter 1: Understanding How the Web Works (pp. 1-24)

Course Videos: Watch the following videos.

INTRODUCING HTML

- 01.01 Understand the basics of HTML
- 01.02 Choose a tool for writing HTML
- 01.03 Post HTML to a hosting service
- 01.04 Define HTML5
- 01.05 Summary

Objectives: After completing this lesson, you should be able to:

Chapter 1

- Outline a brief history of the World Wide Web
- Define the term web page, and state why this term doesn't always reflect all the content involved
- Explain how content gets from your personal computer to someone else's web browser
- Explain how to select a web hosting provider
- Explain how different web browsers and device types can affect your content
- Explain how to transfer files to your web server using FTP
- Explain where files should be placed on a web server
- Explain how to distribute web content without a web server
- Explain how to use other publishing methods, such as blogs
- State tips for testing the appearance and functionality of web content

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- A brief History of HTML and the World Wide Web
- Creating Web Content
- Understanding Web Content Delivery
- Selecting a Web Hosting Provider
- Testing with Multiple Web Browsers
- Creating a Sample File
- Using FTP to Transfer Files
- Understanding Where to Place Files on the Web Server
- Distributing Content Without a Web Server
- Testing Web Content

Lab: none

Homework: none

LESSON #2: INTRODUCTION AND UNDERSTANDING HOW THE WEB WORKS, CONT

Textbook: Chapter 1: Understanding How the Web Works (pp. 1-24), cont.

Course Videos: *Continue with videos.*

Objectives: *After completing this lesson, you should be able to:*

Chapter 1, cont.

- Outline a brief history of the World Wide Web
- Define the term web page, and state why this term doesn't always reflect all the content involved
- Explain how content gets from your personal computer to someone else's web browser
- Explain how to select a web hosting provider
- Explain how different web browsers and device types can affect your content
- Explain how to transfer files to your web server using FTP
- Explain where files should be placed on a web server
- Explain how to distribute web content without a web server
- Explain how to use other publishing methods, such as blogs
- State tips for testing the appearance and functionality of web content

Presentation: Instructor Presentation

Lesson Topics: *This lesson covers the following topics.*

- A brief History of HTML and the World Wide Web
- Creating Web Content
- Understanding Web Content Delivery
- Selecting a Web Hosting Provider
- Testing with Multiple Web Browsers
- Creating a Sample File
- Using FTP to Transfer Files
- Understanding Where to Place Files on the Web Server
- Distributing Content Without a Web Server
- Testing Web Content

Lab: *Complete the following hands-on Labs/Activities and exercises:*

- Chapter 1 - Chapter End-of-Chapter Exercises (p. 24)

Homework: *Complete the following assignments:*

- Chapter 1 - Chapter "Check Your Understanding" (p. 23)
- Read Chapter 2

LESSON #3: STRUCTURING AN HTML DOCUMENT

Textbook: Chapter 2: Structuring an HTML Document (pp. 25-29)

Handout: Handout 1: Building an HTML Page

Course Videos: Watch the following videos.

BUILDING A BASIC HTML DOCUMENT

- 02.01 Build a simple web page
- 02.02 Recognize the standard HTML tags for every web page
- 02.03 Add paragraphs and line breaks
- 02.04 Create HTML headlines
- 02.05 Use semantic tags
- 02.06 Write links to other web pages
- 02.07 Summary

Objectives: After completing this lesson, you should be able to:

- Create a simple web page in HTML
- Include all the HTML tags that every web page must have
- Organize a page with paragraphs and line breaks
- Organize content with headings
- Use the semantic elements of HTML5
- Use semantic tags to indicate header and footer content
- Use semantic tags to indicate navigational and secondary content
- Use semantic tags to better structure body content

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Getting Prepared
- Getting Started with Simple Web Page
- HTML Tags Every Web Page Must Have
- Organizing a Page with Paragraphs and Line Breaks
- Organizing Content with Headings
- Semantic Elements
- Using <header>
- Using <section>
- Using <article>
- Using <nav>
- Using <aside>
- Using <footer>

Lab: none

Homework: none

LESSON #4: MORE HTML

Textbook:	Chapter 2: Structuring an HTML Document, cont. (pp. 30-51)
Course Videos:	<i>Continue with videos.</i>
Objectives:	<p><i>After completing this lesson, you should be able to:</i></p> <ul style="list-style-type: none">• Create a simple web page in HTML• Include all the HTML tags that every web page must have• Organize a page with paragraphs and line breaks• Organize content with headings• Use the semantic elements of HTML5• Use semantic tags to indicate header and footer content• Use semantic tags to indicate navigational and secondary content• Use semantic tags to better structure body content
Presentation:	Instructor Presentation
Lesson Topics:	<p><i>This lesson covers the following topics.</i></p> <ul style="list-style-type: none">• Getting Prepared• Getting Started with Simple Web Page• HTML Tags Every Web Page Must Have• Organizing a Page with Paragraphs and Line Breaks• Organizing Content with Headings• Semantic Elements• Using <header>• Using <section>• Using <article>• Using <nav>• Using <aside>• Using <footer>
Lab:	<p><i>Complete the following hands-on Labs/Activities and exercises:</i></p> <ul style="list-style-type: none">• Chapter 2 - Chapter Try It Yourself Activities (p. 33, 34) and End-of-Chapter Exercises (p. 54)
Homework:	<p><i>Complete the following assignments:</i></p> <ul style="list-style-type: none">• Chapter 2- Chapter “Check Your Understanding” (pp. 52-53)• Read Chapter 6

LESSON #5: UNDERSTANDING CASCADING STYLE SHEETS

Textbook: Chapter 3: Understanding Cascading Style Sheets (pp. 55-74)

Handout: Handout 2: Using CSS

Course Videos: Watch the following videos.

INTRODUCING CSS

- 03.01 Define CSS
- 03.02 Use inline styles
- 03.03 Write a basic CSS style sheet
- 03.04 Use internal and external style sheets
- 03.05 Add CSS classes and IDs
- 03.06 Understanding the basics of CSS3
- 03.07 Summary

Objectives: After completing this lesson, you should be able to:

- Create a basic style sheet
- Use style classes
- Use style IDs
- Construct internal style sheets and inline styles

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- How CSS Works
- A Basic Style Sheet
- A CSS Style Primer
- Using Style Classes
- Using Style IDs
- Internal Style Sheets and Inline Styles

Lab: none

Homework: none

LESSON #6: UNDERSTANDING CASCADING STYLE SHEETS, CONT.

Textbook:	Chapter 3: Understanding Cascading Style Sheets (pp. 55-74), cont.
Course Videos:	<i>Continue with videos.</i>
Objectives:	<i>After completing this lesson, you should be able to:</i> <ul style="list-style-type: none">• Create a basic style sheet• Use style classes• Use style IDs• Construct internal style sheets and inline styles
Presentation:	Instructor Presentation
Lesson Topics:	<i>This lesson covers the following topics.</i> <ul style="list-style-type: none">• How CSS Works• A Basic Style Sheet• A CSS Style Primer• Using Style Classes• Using Style IDs• Internal Style Sheets and Inline Styles
Lab:	<i>Complete the following hands-on Labs/Activities and exercises:</i> <ul style="list-style-type: none">• Chapter 3 - Chapter Try It Yourself Activities (p. 62) and End-of-Chapter Exercises (p. 75)
Homework:	<i>Complete the following assignments:</i> <ul style="list-style-type: none">• Chapter 3 - Chapter “Check Your Understanding” (p. 75)• Read Chapter 9

LESSON #7: WORKING WITH FONTS, TEXT BLOCKS, LISTS, AND TABLES

Textbook: Chapter 6: Working with Fonts, Text Blocks, Lists, and Tables (pp. 121-164)

Course Videos: Watch the following videos.

BUILDING AND STYLING HTML TEXT

- 06.01 Align text
- 06.02 Write ordered and unordered lists
- 06.03 Create definition lists
- 06.04 Add two types of quotations
- 06.05 Summary

Objectives: After completing this lesson, you should be able to:

- Use boldface, italics, and special text formatting
- Tweak font
- Use special characters
- Align text on a page
- Use the three types of HTML lists
- Place lists within lists
- Create simple tables
- Control the size of tables
- Align content and span rows and columns within tables
- Use CSS columns

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Working with Special Characters
- Boldface, Italics, and Special Text Formatting
- Tweaking the Font
- Using Web Fonts
- Aligning Text on a Page
- The Three Types of HTML Lists
- Placing Lists Within Lists
- Creating a Simple Table
- Controlling Table Sizes
- Alignment and Spanning Within Tables
- Page Layout with Tables
- Using CSS Columns

Lab: none

Homework: none

LESSON #8: WORKING WITH FONTS, TEXT BLOCKS, LISTS, AND TABLES, CONT

Textbook: Chapter 6: Working with Fonts, Text Blocks, Lists, and Tables (pp. 121-164), cont.

Course Videos: Continue with videos.

Objectives: After completing this lesson, you should be able to:

- Use boldface, italics, and special text formatting
- Tweak font
- Use special characters
- Align text on a page
- Use the three types of HTML lists
- Place lists within lists
- Create simple tables
- Control the size of tables
- Align content and span rows and columns within tables
- Use CSS columns

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Working with Special Characters
- Boldface, Italics, and Special Text Formatting
- Tweaking the Font
- Using Web Fonts
- Aligning Text on a Page
- The Three Types of HTML Lists
- Placing Lists Within Lists
- Creating a Simple Table
- Controlling Table Sizes
- Alignment and Spanning Within Tables
- Page Layout with Tables
- Using CSS Columns

Lab: Complete the following hands-on Labs/Activities and exercises:

- Chapter 6 - Chapter Try It Yourself Activities (p. 122) and End-of-Chapter Exercises (pp. 166-167)

Homework: Complete the following assignments:

- Chapter 6 - Chapter “Check Your Understanding” (p. 165)
- Read Chapter 7

LESSON #9: USING EXTERNAL LINKS, INTERNAL LINKS, AND SEMANTIC ELEMENTS

Textbook: Chapter 7: Using External and Internal Links (pp. 169-186)

Handout: Handout 3: Adding Meaning with HTML5 Sectioning

Course Videos: Watch the following videos.

UNDERSTANDING HTML5 SEMANTIC ELEMENTS

- 07.01 Recognize sectioning elements
- 0079.02 Add figures
- 07.03 Include document headers and footers
- 07.04 Create HTML5 outlines
- 07.05 Summary

Objectives: After completing this lesson, you should be able to:

- Use anchor links
- Link between pages on your own site
- Link to external content
- Link to an email address
- Use window targeting with links
- Style links with CSS

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Using Web Addressing
- Linking within a Page Using Anchors
- Linking Between Your Own Web Content
- Linking to External Web Content
- Linking to an Email Address
- Opening a Link in a New Browser Window
- Using CSS to Style Hyperlinks

Lab: none

Homework: none

LESSON #10: USING EXTERNAL LINKS, INTERNAL LINKS, AND SEMANTIC ELEMENTS, CONT.

Textbook: Chapter 7: Using External and Internal Links (pp. 169-186), cont.

Course Videos: Continue with videos.

Objectives: After completing this lesson, you should be able to:

- Use anchor links
- Link between pages on your own site
- Link to external content
- Link to an email address
- Use window targeting with links
- Style links with CSS

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Using Web Addressing
- Linking within a Page Using Anchors
- Linking Between Your Own Web Content
- Linking to External Web Content
- Linking to an Email Address
- Opening a Link in a New Browser Window
- Using CSS to Style Hyperlinks

Lab: Complete the following hands-on Labs/Activities and exercises:

- Chapter 7 - Chapter Try It Yourself Activities (p. 171) and End-of-Chapter Exercises (p. 188)

Homework: Complete the following assignments:

- Chapter 7 - Chapter “Check Your Understanding” (p. 187)
- Read Chapter 8

LESSON #11: WORKING WITH COLORS, IMAGES, AND MULTIMEDIA

Textbook: Chapter 8: Working with Colors, Images, and Multimedia (pp. 189-246)

Course Videos: Watch the following videos.

ADDING IMAGES AND MULTIMEDIA

- 08.01 Add images to web pages
- 08.02 Position images
- 08.03 Use background images
- 08.04 Link to documents and PDFs
- 08.05 Add HTML5 video and audio
- 08.06 Make multimedia responsive
- 08.07 Summary

Objectives: After completing this lesson, you should be able to:

- Choose colors for a website that work on the Web
- Use CSS to set background, text, and border colors
- Select a graphics software package to use
- Prepare photographs for use online
- Create banners and buttons
- Reduce the number of colors in an image
- Create transparent images
- Prepare an image for tiled background
- Create animated web graphics
- Place an image on a web page
- Describe images with text
- Specify image height and width
- Align images
- Use background images
- Use imagemaps
- Link to or embed multimedia files
- Use HTML5 audio and video elements

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Best Practices for Choosing Colors
- Understanding Web Colors
- Using Hexadecimal Values for Colors
- Using CSS to Set Background, Text, and Border Colors
- Choosing Graphics Software
- Graphics
- Preparing Photographic Images
- Creating Banners and Buttons
- Reducing or Removing Colors in an Image
- Creating Tiled Background Images
- Creating Animated Web Graphics

- Placing Images on a Web Page
- Describing Images with Text
- Specifying Image Height and Width
- Aligning Images
- Turning Images into Links
- Using Background Images
- Using Imagemaps
- Linking to Multimedia Files
- Embedding Multimedia Files
- Using Pure HTML5 for Audio and Video Playback
- Tips for Using Multimedia

Lab: none

Homework: none

LESSON #12: BUILDING AND USING HTML FORMS

Textbook: *Chapter 8: Working with Colors, Images, and Multimedia (pp. 189-246), cont.*

Course Videos: *Watch the following videos.*

BUILDING AND USING HTML FORMS

- 08.08 Create a basic form
- 08.09 Use HTML5 input
- 08.10 Add in other form input fields
- 08.11 Validate forms
- 08.12 Submit form data
- 08.13 Summary

Objectives: *After completing this lesson, you should be able to:*

- Create a basic HTML form
- Complete form with HTML5 input
- Add form input fields to the form
- Validate the form
- Submit the form data

Presentation: Instructor Presentation

Lesson Topics: *This lesson covers the following topics.*

- HTML forms

Lab: *Complete the following hands-on Labs/Activities and exercises:*

- Chapter 8 - Chapter Try It Yourself Activities (p. 201, 202, 212, 228, 232) and End-of-Chapter Exercises (p. 248)

Homework: *Complete the following assignments:*

- Chapter 8 - Chapter “Check Your Understanding” (p. 247)

LESSON #13: HTML REVIEW

Textbook: Review Chapters 6, 7 and 8

Course Videos: Watch the following videos.

HTML REVIEW

- R.01 Differentiate among HTML versions
- R.02 Define hypertext links and apply different types of URLs
- R.03 Understand how block-level (paragraph-like) elements differ from other HTML elements
- R.04 Use headings and basic paragraphs
- R.05 Understand the difference between div and span
- R.06 Create bulleted and numbered lists
- R.07 Understand how inline (font-like or text-level) elements differ from other HTML elements
- R.08 Summary

Objectives: After completing this lesson, you should be able to:

- State the difference in the various HTML versions
- Define hypertext links
- Apply different types of URLs
- State how block-level elements differ from other HTML elements
- Use headings
- Use basic paragraphs
- State the difference between div and span
- Create a bulleted list
- Create a numbered list
- Explain how inline elements differ from other HTML elements

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- HTML versions
- Div and span
- HTML links
- HTML bulleted and numbered lists
- HTML inline elements

Lab: Complete the following hands-on Labs/Activities and exercises:

- **Lab Exercise 1:** HTML Basics, Part 1 (Check your results with the Exercise Solution)

Homework: Complete the following assignments:

- Complete all activities as needed.

LESSON #14: HTML REVIEW, CONT.

Textbook: Review Chapters 6, 7 and 8

Course Videos: Watch the following videos.

HTML REVIEW, CONT.

- R.09 Use tables to present tabular information or to align sections of text
- R.10 Use forms to send data to servers
- R.11 Collect user data with form input elements
- R.12 Apply a few miscellaneous elements
- R.13 Summary

Objectives: After completing this lesson, you should be able to:

- Use tables to present data or align sections of text
- Collect user data with a form
- Apply various HTML elements

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- HTML tables and forms
- Miscellaneous HTML elements

Lab: Complete the following hands-on Labs/Activities and exercises:

- **Lab Exercise 2:** HTML Basics, Part 2 (Check your results with the Exercise Solution)

Homework: Complete the following assignments:

- Read Chapter 3

Assessment: Quiz 1 (Covers Lessons 1-14)

Part B: CSS Basics- Lessons 15-22

LESSON #15: WORKING WITH MARGINS, PADDING, ALIGNMENT, AND FLOATING

Textbook: Chapter 9: Working with Margins, Padding, Alignment, and Floating (pp. 249-266)

Course Videos: Watch the following videos.

CSS BASICS

- 09.01 Load and apply styles
- 09.02 Match page elements with CSS selectors
- 09.03 Understand the idea of CSS properties
- 09.04 Assign colors and fonts with CSS properties

Objectives: After completing this lesson, you should be able to:

- Add margins around elements
- Add padding within elements
- Explain how to keep everything aligned
- Use the float property

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Using Margins
- Padding Elements
- Keeping Everything Aligned
- The Float Property

Lab: none

Homework: none

LESSON #16: WORKING WITH MARGINS, PADDING, ALIGNMENT, AND FLOATING, CONT.

Textbook:	Chapter 9: Working with Margins, Padding, Alignment, and Floating (pp. 249-266), cont.
Course Videos:	<i>Continue with videos.</i>
Objectives:	<i>After completing this lesson, you should be able to:</i> <ul style="list-style-type: none">• Add margins around elements• Add padding within elements• Explain how to keep everything aligned• Use the float property
Presentation:	Instructor Presentation
Lesson Topics:	<i>This lesson covers the following topics.</i> <ul style="list-style-type: none">• Using Margins• Padding Elements• Keeping Everything Aligned• The Float Property
Lab:	<i>Complete the following hands-on Labs/Activities and exercises:</i> <ul style="list-style-type: none">• Chapter 9 - End-of-Chapter Exercises (p. 267)• Lab Exercise 3: CSS Basics (Check your results with the Exercise Solution)
Homework:	<i>Complete the following assignments:</i> <ul style="list-style-type: none">• Chapter 9 - Chapter “Check Your Understanding” (p. 267)• Read Chapter 10

LESSON #17: UNDERSTANDING THE CSS BOX MODEL AND POSITIONING

Textbook: Chapter 10: Understanding the CSS Box Model and Positioning (pp. 269-282)

Course Videos: Watch the following videos.

CSS BASICS, CONT.

- 10.01 Define spacing with the CSS box model
- 10.02 Explore a few examples
- 10.03 Summary

Objectives: After completing this lesson, you should be able to:

- Conceptualize the CSS box model
- Position elements
- Control the way elements stack up
- Manage the flow of text
- Explain how the CSS box model affects lists

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- The CSS Box Model
- Positioning
- Controlling the Way Things Stack Up
- Managing the Flow of Text
- HTML List Refresher
- How the CSS Box Model Affects Lists

Lab: none

Homework: none

LESSON #18: UNDERSTANDING THE CSS BOX MODEL AND POSITIONING, CONT.

Textbook: Chapter 10: Understanding the CSS Box Model and Positioning (pp. 269-282)

Course Videos: Continue with videos.

Objectives: After completing this lesson, you should be able to:

- Conceptualize the CSS box model
- Position elements
- Control the way elements stack up
- Manage the flow of text
- Explain how the CSS box model affects lists

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- The CSS Box Model
- Positioning
- Controlling the Way Things Stack Up
- Managing the Flow of Text
- HTML List Refresher
- How the CSS Box Model Affects Lists

Lab: Complete the following hands-on Labs/Activities and exercises:

- Chapter 10 - End-of-Chapter Exercises (p. 283)
- **Lab Exercise 3:** CSS Basics (Check your results with the Exercise Solution)

Homework: Complete the following assignments:

- Chapter 10 - Chapter "Check Your Understanding" (p. 283)
- Read Chapter 11

LESSON #19: USING CSS TO DO MORE WITH LISTS, TEXT, AND NAVIGATION

Textbook: Chapter 11: Using CSS to Do More with Lists, Text, and Navigation (pp. 285-311)

Course Videos: Watch the following videos.

There are no Videos for this chapter

Objectives: After completing this lesson, you should be able to:

- Customize the list item indicator
- Use list items and CSS to create an imagemap
- Explain how navigation lists differ from regular lists
- Create vertical navigation with CSS
- Create horizontal navigation with CSS

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Placing List Item Indicators
- Creating Imagemaps with List Items and CSS
- How Navigation Lists Differ from Regular Lists
- Creating Vertical Navigation with CSS
- Creating Horizontal Navigation with CSS

Lab: none

Homework: none

LESSON #20: USING CSS TO DO MORE WITH LISTS, TEXT, AND NAVIGATION, CONT.

Textbook: Chapter 11: Using CSS to Do More with Lists, Text, and Navigation (pp. 285-311), cont.

Course Videos: Watch the following videos.

There are no Videos for this chapter

Objectives: After completing this lesson, you should be able to:

- Customize the list item indicator
- Use list items and CSS to create an imagemap
- Explain how navigation lists differ from regular lists
- Create vertical navigation with CSS
- Create horizontal navigation with CSS

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Placing List Item Indicators
- Creating Imagemaps with List Items and CSS
- How Navigation Lists Differ from Regular Lists
- Creating Vertical Navigation with CSS
- Creating Horizontal Navigation with CSS

Lab: Complete the following hands-on Labs/Activities and exercises:

- Chapter 11 - Chapter Try It Yourself Activities (p. 313) and End-of-Chapter Exercises (p. 313-314)

Homework: Complete the following assignments:

- Chapter 11 - Chapter "Check Your Understanding" (p. 313)
- Read Chapter 12

LESSON #21: CREATING FIXED OR LIQUID LAYOUTS

Textbook: Chapter 12: Creating Fixed or Liquid Layouts (pp. 315-333)

Course Videos: *Watch the following videos.*

There are no Videos for this chapter

Objectives: *After completing this lesson, you should be able to:*

- Understand fixed and liquid layouts
- Create a fixed/liquid hybrid layout

Presentation: Instructor Presentation

Lesson Topics: *This lesson covers the following topics.*

- Fixed and liquid layouts
- Hybrid layouts

Lab: none

Homework: none

LESSON #22: CREATING FIXED OR LIQUID LAYOUTS, CONT.

Textbook: Chapter 12: Creating Fixed or Liquid Layouts (pp. 315-333), cont.

Course Videos: Watch the following videos.

There are no Videos for this chapter

Objectives: After completing this lesson, you should be able to:

- Understand fixed and liquid layouts
- Create a fixed/liquid hybrid layout

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Fixed and liquid layouts
- Hybrid layouts

Lab: Complete the following hands-on Labs/Activities and exercises:

- Chapter 12 - End-of-Chapter Exercises (p. 335)

Homework: Complete the following assignments:

- Chapter 12 Chapter “Check Your Understanding” (p. 334)
- Read Chapter 13

LESSON #23: UNDERSTANDING JAVASCRIPT

Textbook: Chapter 4: Understanding JavaScript (pp. 77-92)

Course Videos: Watch the following videos.

JAVASCRIPT - GETTING STARTED

- 04.01 Learn how JavaScript is used
- 04.02 Practice interactivity with JavaScript (simplist version)
- 04.03 Practice interactively with JavaScript (more complex but more powerful version)
- 04.04 Define, modify, and access variables
- 04.05 Apply operators
- 04.06 Define and call functions
- 04.07 Summary

Objectives: After completing this lesson, you should be able to:

Chapter 4

- Explain web scripting and its benefit
- Explain how scripting and programming are similar and different
- Explain what JavaScript is and where it came from
- Include JavaScript commands in a web page
- Explain what JavaScript can do for a web page
- Explain beginning and ending scripts
- Explain formatting JavaScript statements
- Explain how a script can display a result
- Include a script within a web document
- Test a script in a browser
- Modify a script
- Deal with errors in scripts
- Move scripts into separate files

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

Chapter 4

- Web Scripting Basics
- How JavaScript Fits into a Web Page
- JavaScript Capabilities
- Displaying Time with JavaScript
- Testing the Script

Lab: none

Homework: none

LESSON #24: UNDERSTANDING JAVASCRIPT, CONT.

Textbook:	Chapter 4: Understanding JavaScript (pp. 77-92), cont.
Course Videos:	<i>Continue with videos.</i>
Objectives:	<p><i>After completing this lesson, you should be able to:</i></p> <ul style="list-style-type: none">• Explain web scripting and its benefit• Explain how scripting and programming are similar and different• Explain what JavaScript is and where it came from• Include JavaScript commands in a web page• Explain what JavaScript can do for a web page• Explain beginning and ending scripts• Explain formatting JavaScript statements• Explain how a script can display a result• Include a script within a web document• Test a script in a browser• Modify a script• Deal with errors in scripts• Move scripts into separate files
Presentation:	Instructor Presentation
Lesson Topics:	<p><i>This lesson covers the following topics.</i></p> <p>Chapter 4</p> <ul style="list-style-type: none">• Web Scripting Basics• How JavaScript Fits into a Web Page• JavaScript Capabilities• Displaying Time with JavaScript• Testing the Script
Lab:	<p><i>Complete the following hands-on Labs/Activities and exercises:</i></p> <ul style="list-style-type: none">• Chapter 4 - End-of-Chapter Exercises (p. 94)• Lab Exercise 4: Getting Started (Check your results with the Exercise Solution)
Homework:	<p><i>Complete the following assignments:</i></p> <ul style="list-style-type: none">• Chapter 4 - Chapter “Check Your Understanding” (p. 93)• Read Chapter 5

LESSON #25: VALIDATING AND DEBUGGING YOUR CODE

Textbook: Chapter 5: Validating and Debugging Your Code (pp. 95-117)

Course Videos: *Watch the following videos.*

There are no Videos for this chapter

Objectives: *After completing this lesson, you should be able to:*

- Validate HTML and CSS
- Use Developer Tools to debug HTML and CSS
- Use the JavaScript console to debug JavaScript

Presentation: Instructor Presentation

Lesson Topics: *This lesson covers the following topics.*

- Validating Web Content
- Debugging HTML and CSS Using Developer Tools
- Debugging HTML Using the Inspector
- Debugging CSS Using the Inspector
- Debugging JavaScript Using Developer Tools
- The Source Panel

Lab: none

Homework: none

LESSON #26: VALIDATING AND DEBUGGING YOUR CODE, CONT.

Textbook: Chapter 5: Validating and Debugging Your Code (pp. 95-117), cont.

Course Videos: Watch the following videos.

There are no Videos for this chapter

Objectives: After completing this lesson, you should be able to:

- Validate HTML and CSS
- Use Developer Tools to debug HTML and CSS
- Use the JavaScript console to debug JavaScript

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Validating Web Content
- Debugging HTML and CSS Using Developer Tools
- Debugging HTML Using the Inspector
- Debugging CSS Using the Inspector
- Debugging JavaScript Using Developer Tools
- The Source Panel

Lab: Complete the following hands-on Labs/Activities and exercises:

- Chapter 5 - End-of-Chapter Exercises (p. 119)

Homework: Complete the following assignments:

- Chapter 5 - Chapter “Check Your Understanding” (p. 118)
- Read Chapter 14

LESSON #27: UNDERSTANDING DYNAMIC WEBSITES AND HTML5 APPLICATIONS

Textbook:	Chapter 13: Understanding Dynamic Websites and HTML5 Applications (pp. 337-350)
Course Videos:	<i>Watch the following videos.</i> There are no Videos for this chapter
Objectives:	<i>After completing this lesson, you should be able to:</i> <ul style="list-style-type: none">• Conceptualize different types of dynamic content• Include JavaScript in your HTML• Display randomized text with JavaScript• Change images using JavaScript and user events
Presentation:	Instructor Presentation
Lesson Topics:	<i>This lesson covers the following topics.</i> <ul style="list-style-type: none">• Including JavaScript in HTML• Displaying Random Content• Understanding the Document Object Model• Changing Images Based on User Interaction
Presentation:	Instructor Presentation
Lab:	none
Homework:	none

LESSON #28: UNDERSTANDING DYNAMIC WEBSITES AND HTML5 APPLICATIONS, CONT.

Textbook:	Chapter 13: Understanding Dynamic Websites and HTML5 Applications (pp. 337-350), cont.
Course Videos:	<i>Watch the following videos.</i> There are no Videos for this chapter
Objectives:	<i>After completing this lesson, you should be able to:</i> <ul style="list-style-type: none">• Conceptualize different types of dynamic content• Include JavaScript in your HTML• Display randomized text with JavaScript• Change images using JavaScript and user events
Presentation:	Instructor Presentation
Lesson Topics:	<i>This lesson covers the following topics.</i> <ul style="list-style-type: none">• Including JavaScript in HTML• Displaying Random Content• Understanding the Document Object Model• Changing Images Based on User Interaction
Presentation:	Instructor Presentation
Lab:	<i>Complete the following hands-on Labs/Activities and exercises:</i> <ul style="list-style-type: none">• Chapters 13 - End-of-Chapter Exercises (pp. 351-352)
Homework:	<i>Complete the following assignments:</i> <ul style="list-style-type: none">• Chapters 13 - Chapter “Check Your Understanding” (p. 351)• Read Chapter 14

LESSON #29: GETTING STARTED WITH JAVASCRIPT PROGRAMMING

Textbook: Chapter 14: Getting Started with JavaScript Programming (pp. 353-364)

Handout: Handout 4: Jumping into jQuery and JavaScript Syntax

Course Videos: Watch the following videos.

JAVASCRIPT BASIC SYNTAX - PART 1

- 14.01 Execute code conditionally
- 14.02 Execute code
- 14.03 Format code so that it can be understood, edited, and maintained
- 14.04 Call functions for the Math class
- 14.05 Embed JavaScript in HTML
- 14.06 Choose among HTML versions
- 14.07 Summary

Objectives:

After completing this lesson, you should be able to:

- Explain how and why to organize scripts using functions
- Explain what objects are and how JavaScript uses them
- Explain JavaScript can respond to events
- Explain how and when to use conditional statements and loops
- Explain how browsers execute scripts in the proper order
- Explain basic syntax rules for avoiding JavaScript errors
- Explain what JSON is and how it can be used

Presentation: Instructor Presentation

Lesson Topics: *This lesson covers the following topics.*

- Basic Concepts
- JavaScript Syntax Rules
- Using Comments
- Best Practices for JavaScript
- Understanding JSON

Lab: none

Homework: none

LESSON #30: GETTING STARTED WITH JAVASCRIPT PROGRAMMING, CONT.

Textbook: Chapter 14: Getting Started with JavaScript Programming (pp. 353-364), cont.

Course Videos: *Continue with videos.*

Objectives: *After completing this lesson, you should be able to:*

- Explain how and why to organize scripts using functions
- Explain what objects are and how JavaScript uses them
- Explain JavaScript can respond to events
- Explain how and when to use conditional statements and loops
- Explain how browsers execute scripts in the proper order
- Explain basic syntax rules for avoiding JavaScript errors
- Explain what JSON is and how it can be used

Presentation: Instructor Presentation

Lesson Topics: *This lesson covers the following topics.*

- Basic Concepts
- JavaScript Syntax Rules
- Using Comments
- Best Practices for JavaScript
- Understanding JSON

Lab: *Complete the following hands-on Labs/Activities and exercises:*

- Chapter 14 - End-of-Chapter Exercises (p. 366)
- **Lab Exercise 5:** Basic Syntax 1 (Check your results with the Exercise Solution)

Homework: *Complete the following assignments:*

- Chapter 14 - Chapter “Check Your Understanding” (p. 365)
- Read Chapter 15

LESSON #31: WORKING WITH THE DOCUMENT OBJECT MODEL (DOM)

Textbook: Chapter 15: Working with the Document Object Model (DOM) (pp. 367-391)

Course Videos: Watch the following videos.

There are no Videos for this chapter

Objectives: After completing this lesson, you should be able to:

- Explain how the W3C DOM standard makes dynamic pages easier to control
- Explain the basics of the standard DOM objects: window, document, history, and location
- Work with DOM nodes, parents, children, and siblings
- Access and use the properties of DOM nodes
- Access and use DOM node methods
- Control element positioning with JavaScript
- Hide and show elements with JavaScript
- Add and modify text within a page with JavaScript

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Understanding the Document Object Model
- Using window Objects
- Working with the document Object
- Accessing Browser History
- Working with the location Object
- DOM Structure
- Working with DOM Nodes
- Creating Positionable Elements (Layers)
- Modifying Text Within a Page
- Adding Text to a Page

Lab: none

Homework: none

LESSON #32: WORKING WITH THE DOCUMENT OBJECT MODEL (DOM), CONT.

Textbook: Chapter 15: Working with the Document Object Model (DOM) (pp. 367-391), cont.

Course Videos: Watch the following videos.

There are no Videos for this chapter

Objectives: After completing this lesson, you should be able to:

- Explain how the W3C DOM standard makes dynamic pages easier to control
- Explain the basics of the standard DOM objects: window, document, history, and location
- Work with DOM nodes, parents, children, and siblings
- Access and use the properties of DOM nodes
- Access and use DIM node methods
- Control element positioning with JavaScript
- Hide and show elements with JavaScript
- Add and modify text within a page with JavaScript

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Understanding the Document Object Model
- Using window Objects
- Working with the document Object
- Accessing Browser History
- Working with the location Object
- DOM Structure
- Working with DOM Nodes
- Creating Positionable Elements (Layers)
- Modifying Text Within a Page
- Adding Text to a Page

Lab: Complete the following hands-on Labs/Activities and exercises:

- Chapter 15 - End-of-Chapter Exercises (p. 394)

Homework: Complete the following assignments:

- Chapter 15 - Chapter "Check Your Understanding" (pp. 392-393)
- Read Chapter 16

LESSON #33: USING JAVASCRIPT VARIABLES, STRINGS, AND ARRAYS

Textbook: Chapter 16: Using JavaScript Variables, Strings, and Arrays (pp. 395-414)

Handout: Handout 5: Regular Expressions

Course Videos: Watch the following videos.

JAVASCRIPT BASIC SYNTAX - PART 2

- 16.01 Define and access arrays
- 16.02 Create, compare, and call methods on strings
- 16.03 Recognize patterns with regular expressions
- 16.04 Call methods on arrays
- 16.05 Summary

Objectives: After completing this lesson, you should be able to:

- Compare and contrast various Wi-Fi networking standards and Name and declare variables
- Choose whether to use local or global variables
- Assign values to variables
- Convert between different data types
- Use variables and literals in expressions
- Explain how strings are stored in String objects
- Create and use String objects
- Create and use arrays of numbers and strings

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Using Variables
- Understanding Expressions and Operators
- Data Types in JavaScript
- Converting Between Data Types
- Using String Objects
- Working with substrings
- Using Numeric Arrays
- Using String Arrays
- Sorting a Numeric Array

Lab: none

Homework: none

LESSON #34: USING JAVASCRIPT VARIABLES, STRINGS, AND ARRAYS, CONT.

Textbook:	Chapter 16: Using JavaScript Variables, Strings, and Arrays (pp. 395-414), cont.
Course Videos:	<i>Continue with videos.</i>
Objectives:	<p><i>After completing this lesson, you should be able to:</i></p> <ul style="list-style-type: none">• Compare and contrast various Wi-Fi networking standards and Name and declare variables• Choose whether to use local or global variables• Assign values to variables• Convert between different data types• Use variables and literals in expressions• Explain how strings are stored in String objects• Create and use String objects• Create and use arrays of numbers and strings
Presentation:	Instructor Presentation
Lesson Topics:	<p><i>This lesson covers the following topics.</i></p> <ul style="list-style-type: none">• Using Variables• Understanding Expressions and Operators• Data Types in JavaScript• Converting Between Data Types• Using String Objects• Working with substrings• Using Numeric Arrays• Using String Arrays• Sorting a Numeric Array
Lab:	<p><i>Complete the following hands-on Labs/Activities and exercises:</i></p> <ul style="list-style-type: none">• Chapter 16 - Chapter Try It Yourself Activities (p. 412, 413, 414) and End-of-Chapter Exercises (p. 417)• Lab Exercise 6: Basic Syntax 2 (Check your results with the Exercise Solution)
Homework:	<p><i>Complete the following assignments:</i></p> <ul style="list-style-type: none">• Chapter 16 - Chapter “Check Your Understanding” (pp. 416-417)• Read Chapter 17

LESSON #35: USING JAVASCRIPT FUNCTIONS AND OBJECTS

Textbook: Chapter 17: Using JavaScript Functions and Objects (pp. 419-441)

Course Videos: Watch the following videos.

JAVASCRIPT - FUNCTIONS

- 17.01 Understand how the use of functions in JavaScript differs from other languages
- 17.02 Assign functions to variables, arrays, and other data structures
- 17.03 Pass functions to other functions
- 17.04 Return functions from functions
- 17.05 Create anonymous functions
- 17.06 Capture local variables (make closures)
- 17.07 Use the apply method
- 17.08 Summary

JAVASCRIPT - OBJECTS

- 17.09 Define, instantiate, and access objects
- 17.10 Define methods with the prototype property
- 17.11 Use namespaces to avoid name conflicts
- 17.12 Create anonymous objects
- 17.13 Create and parse JSON
- 17.14 Apply a few other object "tricks"
- 17.15 Summary

Objectives: After completing this lesson, you should be able to:

- Use functions in JavaScript
- Assign functions to variables, arrays, and other data structures
- Pass functions to other functions
- Return functions from functions
- Create anonymous functions
- Capture local variables and make closures
- Use the apply method

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- JavaScript functions

Lab: none

Homework: none

LESSON #36: USING JAVASCRIPT FUNCTIONS AND OBJECTS, CONT.

Textbook: Chapter 17: Using JavaScript Functions and Objects (pp. 419-441), cont.

Course Videos: *Continue with videos.*

Objectives: *After completing this lesson, you should be able to:*

- Use functions in JavaScript
- Assign functions to variables, arrays, and other data structures
- Pass functions to other functions
- Return functions from functions
- Create anonymous functions
- Capture local variables and make closures
- Use the apply method

Presentation: Instructor Presentation

Lesson Topics: *This lesson covers the following topics.*

- JavaScript functions

Lab: *Complete the following hands-on Labs/Activities and exercises:*

- Chapter 17 - End-of-Chapter Exercises, cont.
- **Lab Exercise 7:** Functional Programming – Basic Exercises (Check your results with the Exercise Solution)

Homework: *Complete the following assignments:*

- Chapter 17 - Chapter “Check Your Understanding”, cont.
- Read Chapter 18

LESSON #37: CONTROLLING FLOW WITH CONDITIONS AND LOOPS

Textbook: Chapter 18: Controlling Flow with Conditions and Loops (pp. 445-462)

Course Videos: Watch the following videos.

There are no Videos for this chapter

Objectives: After completing this lesson, you should be able to:

- Use the *if* statement
- Use shorthand conditional expressions
- Test multiple conditions with *if* and *else*
- Use multiple conditions with *switch*
- Use *for* loops
- Use *while* loops
- Use *do...while* loops
- Use *with* loops

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Conditions and loops

Lab: none

Homework: none

LESSON #38: CONTROLLING FLOW WITH CONDITIONS AND LOOPS, CONT.

Textbook: Chapter 18: Controlling Flow with Conditions and Loops (pp. 445-462), cont.

Course Videos: Watch the following videos.

There are no Videos for this chapter

Objectives: After completing this lesson, you should be able to:

- Use the *if* statement
- Use shorthand conditional expressions
- Test multiple conditions with *if* and *else*
- Use multiple conditions with *switch*
- Use *for* loops
- Use *while* loops
- Use *do...while* loops
- Use *with* loops

Presentation: Instructor Presentation

Lesson Topics: This lesson covers the following topics.

- Conditions and loops

Lab: Complete the following hands-on Labs/Activities and exercises:

- Chapter 18 - Chapter Try It Yourself Activities (pp. 460-462) and End-of-Chapter Exercises (p. 464)

Homework: Complete the following assignments:

- Chapter 18 - Chapter “Check Your Understanding” (pp. 463-464)
- Read Chapter 19

LESSON #39: RESPONDING TO EVENTS

Textbook:	Chapter 19: Responding to Events (p. 465-485)
Course Videos:	<i>Watch the following videos.</i> There are no Videos for this chapter
Objectives:	<i>After completing this lesson, you should be able to:</i> <ul style="list-style-type: none">• Explain event handlers• Use mouse events• Use keyboard events• Use the <i>onload</i> and <i>onunload</i> events• Use <i>onclick</i> to change a <div>'s appearance
Presentation:	Instructor Presentation
Lesson Topics:	<i>This lesson covers the following topics.</i> <ul style="list-style-type: none">• Events
Lab:	none
Homework:	none

LESSON #40: RESPONDING TO EVENTS

Textbook: Chapter 19: Responding to Events (p. 465-485)

Course Videos: *Watch the following videos.*

There are no Videos for this chapter

Objectives: *After completing this lesson, you should be able to:*

- Explain event handlers
- Use mouse events
- Use keyboard events
- Use the *onload* and *onunload* events
- Use *onclick* to change a <div>'s appearance

Presentation: Instructor Presentation

Lesson Topics: *This lesson covers the following topics.*

- Events

Lab: *Complete the following hands-on Labs/Activities and exercises:*

- Chapter 19 – End-of-Chapter Exercises (p. 487)

Homework: *Complete the following assignments:*

- Chapter 19 - Chapter “Check Your Understanding” (p. 486)

Assessment: **Quiz 2 (Covers Lessons 15-40)**