

KOENIG SOLUTIONS • COURSE OUTLINE

Responsive Web Design and Development with HTML5 CSS3 and Bootstrap

Learn to build responsive web pages with HTML5, CSS3, JavaScript basics and Bootstrap, from page structure to styled, interactive layouts.

5 Days

40 HOURS

135

TOPICS

75

HANDS-ON ACTIVITIES

COURSE OVERVIEW

This course covers core HTML elements including text, links, images, lists and forms, followed by CSS fundamentals such as selectors, fonts, color, opacity and text styling. It then introduces JavaScript basics for working with the DOM and page elements before moving into a project-based segment. The second part focuses on Bootstrap, covering its grid system, typography and utility classes, built-in components such as buttons, cards, navbars, modals and carousels, form styling, and responsive layout techniques, concluding with a mini project to build a responsive webpage.

WHO THIS COURSE IS FOR

Web Developers

Front-End Developers

UI Developers

Web Designers

PREREQUISITES

- Overview of Web Application Development (HTML, CSS, JS)

LEARNING OBJECTIVES

- Create HTML pages using paragraphs, headings, links, images and lists
- Build HTML forms with inputs, checkboxes, radio buttons and select menus
- Apply CSS selectors, combinators and precedence to style elements
- Style fonts, color, opacity and text properties with CSS
- Explain JavaScript syntax and DOM element access
- Configure Bootstrap grid layouts using containers, rows and columns
- Implement Bootstrap components such as cards, navbars and modals
- Build a responsive webpage using Bootstrap utilities and layouts

135 Topics

DAY 1

Day 1 to Day 3

01

A Quick Overview of Web Development

TOPICS

HTML is Part of a Team · Client-side Programming · Server-side Programming · Web Development Technologies

02

Activity

5 Outcomes

Introduction to HTML

TOPICS

- **Exercise:** A Simple HTML Document
- Getting Started with a Simple HTML Document
- HTML Elements, Attributes, and Comments
- The HTML Skeleton
- Viewing the Page Source
- Special Characters
- HTML Elements and Special Characters
- History of HTML
- The lang Attribute

03

2 Activities

7 Outcomes

Paragraphs, Headings, and Text

TOPICS

- Paragraphs
- Heading Levels
- Breaks and Horizontal Rules
- **Exercise:** Paragraphs, Headings, and Text
- The div Tag
- Creating an HTML Page
- Quoted Text
- Preformatted Text
- Inline Semantic Elements
- **Exercise:** Adding Inline Elements

04

Activity

5 Outcomes

HTML Links

TOPICS

- Links Introduction
- Text Links
- Absolute vs. Relative Paths
- Targeting New Tabs
- Email Links
- **Exercise:** Adding Links
- Lorem Ipsum
- The title Attribute
- Linking to a Specific Location on the Page
- Targeting a Specific Location on the Page

05

Activity

3 Outcomes

HTML Images

TOPICS

Inserting Images · Image Links · Adding Images to the Document · **Exercise:** Adding Images to the Page · Providing Alternative Images

06

Activity

3 Outcomes

HTML Lists

TOPICS

Unordered Lists · Ordered Lists · Definition Lists · **Exercise:** Creating Lists

07

4 Activities

8 Outcomes

Crash Course in CSS

TOPICS

- Benefits of Cascading Style Sheets
- CSS Rules
- Selectors
- Combinators
- Precedence of Selectors
- How Browsers Style Pages
- CSS Resets
- CSS Normalizers
- External / Embedded / Inline Styles
- **Exercise:** Creating External Stylesheet
- **Exercise:** Creating Embedded Stylesheet
- **Exercise:** Adding Inline Styles
- div and span
- **Exercise:** Styling div and span
- Media Types
- Units of Measurement
- Inheritance

08

Activity

2 Outcomes

CSS Fonts

TOPICS

- font-family
- @font-face
- font-size
- font-style
- font-variant
- font-weight
- line-height
- font shorthand
- **Exercise:** Styling Fonts

09

Activity

2 Outcomes

Color and Opacity

TOPICS

About Color and Opacity · Color and Opacity Values · color · opacity · **Exercise:** Adding Color and Opacity to Text

10

Activity

9 Outcomes

CSS Text

TOPICS

- letter-spacing
- text-align
- text-decoration
- text-indent
- text-shadow
- text-transform
- white-space
- word-break
- word-spacing
- **Exercise:** Text Properties

11

Activity

6 Outcomes

JavaScript Basics

TOPICS

- JavaScript vs. EcmaScript
- The HTML DOM
- JavaScript Syntax
- Accessing Elements
- Where Is JavaScript Code Written?
- JavaScript Objects, Methods, and Properties
- **Exercise:** Alerts, Writing, Changing Background Color

HTML Forms

TOPICS

- How HTML Forms Work
- The form Element
- Form Elements
- Buttons
- **Exercise:** Creating a Registration Form
- Checkboxes
- Radio Buttons
- **Exercise:** Adding Checkboxes and Radio Buttons
- Fieldsets
- Select Menus
- Textareas
- **Exercise:** Adding a Select Menu and Textarea
- HTML Forms and CSS

Day 4 to Day 5: Focus on Project

Focus on Project (no further detail given in source).

DAY 1 Bootstrap Fundamentals & Layouts

01

Introduction to Bootstrap

TOPICS

- What is Bootstrap?
- Why use Bootstrap over plain CSS?
- Versions of Bootstrap (v4, v5)
- How to include Bootstrap (CDN, local files, npm)

02

Exercise

Bootstrap Grid System

TOPICS

Container types: .container, .container-fluid · **Rows and columns:** .row, .col-* · **Responsive breakpoints:** sm, md, lg, xl, xxl · Nesting columns and offsets

03[Exercise](#)

Bootstrap Typography & Utilities

TOPICS

- Headings, paragraphs, blockquotes
- Text colors, alignment, and spacing utilities (m-, p-, text-center)

04[Exercise](#)

Bootstrap Components - Part 1

TOPICS

Buttons and button groups · Alerts, badges, and progress bars · **Cards:** layout and customization

05[Exercise](#)

Bootstrap Forms

TOPICS

- Input fields, checkboxes, radio buttons, selects
- Form validation classes
- Inline and horizontal forms

DAY 2

Advanced Components & Responsive Design

06[Exercise](#)

Bootstrap Components - Part 2

TOPICS

Navbar and navigation menus · Dropdowns and tooltips · Modals and popovers

07[Exercise](#)

Bootstrap Utilities & Helpers

TOPICS

Spacing, display, and flex utilities · Colors, backgrounds, borders · Shadow and rounding utilities

08[Exercise](#)

Bootstrap Layouts & Responsiveness

TOPICS

Responsive images and media · Cards in grid layouts · Visibility utilities (d-none, d-sm-block)

09

Exercise

Bootstrap JavaScript Components

TOPICS

- Collapse, carousel, tabs, and accordions
- Using Bootstrap JS with data attributes and JS methods

10

Mini Project - Build a Responsive Webpage

CREATE A LANDING PAGE WITH:

Navbar · Hero section · Cards for services/products · Contact form · Footer

Practise What You Learn

#	MODULE	ACTIVITY
		Lab 1: Getting Started: A Simple HTML Document OUTCOMES ■ Create a simple HTML page ■ Understand HTML elements and attributes ■ Understand how whitespace is treated in HTML ■ Add special characters to HTML pages ■ Explain the general history of HTML
02	Introduction to HTML	
		LAB 1: EXERCISES INCLUDED THROUGHOUT LESSON ■ Creating an HTML Page ■ Adding Inline Elements OUTCOMES ■ Add paragraphs to HTML pages ■ Add headings to HTML pages ■ Add breaks and horizontal rules ■ Add quoted text ■ Add preformatted text ■ Add phrase elements to identify textual elements ■ Understand semantic content
03	Paragraphs, Headings, and Text	
		Lab 1: Exercises included throughout lesson: Adding Links OUTCOMES ■ Add basic text links ■ Understand absolute vs relative paths ■ Open links in new tabs/windows ■ Add email links ■ Link to specific locations on a page
04	HTML Links	
		Lab 1: Exercises included throughout lesson: Adding Images to the Page OUTCOMES ■ Add images to an HTML page ■ Create image links ■ Make images accessible
05	HTML Images	
		Lab 1: Exercises included throughout lesson: Creating Lists OUTCOMES ■ Create unordered (bulleted) lists ■ Create ordered (numbered) lists ■ Create definition lists
06	HTML Lists	

#	MODULE	ACTIVITY
07	Crash Course in CSS	LAB 1: EXERCISES INCLUDED THROUGHOUT LESSON ■ Creating External Stylesheet ■ Creating Embedded Stylesheet ■ Adding Inline Styles ■ Styling div and span Elements OUTCOMES ■ Understand benefits of CSS ■ Redefine element formatting ■ Create/use selectors & combinators ■ Understand cascade & precedence ■ Use resets & normalizers ■ Create external/embedded/inline stylesheets ■ Style with div and span ■ Understand media types, viewport, units, inheritance
08	CSS Fonts	Lab 1: Exercises included throughout lesson: Styling Fonts OUTCOMES ■ Use font-family, size, style, variant, weight, line-height ■ Use shorthand font
09	Color and Opacity	Lab 1: Exercises included throughout lesson: Adding Color and Opacity to Text OUTCOMES ■ Use the color property ■ Use the opacity property
10	CSS Text	Lab 1: Exercises included throughout lesson: Text Properties OUTCOMES ■ Use letter-spacing ■ Use text-align ■ Use text-decoration ■ Use text-indent ■ Use text-shadow ■ Use text-transform ■ Use white-space ■ Use word-break ■ Use word-spacing
11	JavaScript Basics	Lab 1: Exercises included throughout lesson: Alerts, Writing, Changing Background Color OUTCOMES ■ Understand the DOM ■ Understand JavaScript syntax ■ Write inline and script block JavaScript ■ Create external JS files ■ Work with objects, methods, properties ■ Reference HTML elements

#	MODULE	ACTIVITY
12	HTML Forms	LAB 1: EXERCISES INCLUDED THROUGHOUT LESSON
		■ Creating a Registration Form
		■ Adding Checkboxes and Radio Buttons
		■ Adding a Select Menu and Textarea
02	Bootstrap Grid System	Exercise: Build a 12-column layout for a homepage
03	Bootstrap Typography & Utilities	Exercise: Style a blog post using Bootstrap typography
04	Bootstrap Components - Part 1	Exercise: Create a card-based product display
05	Bootstrap Forms	Exercise: Build a contact form using Bootstrap
06	Bootstrap Components - Part 2	Exercise: Build a responsive navbar with dropdowns
07	Bootstrap Utilities & Helpers	Exercise: Style a multi-section landing page
08	Bootstrap Layouts & Responsiveness	Exercise: Make a 3-column product gallery responsive
09	Bootstrap JavaScript Components	Exercise: Build a carousel with captions and indicators

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

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