Responsive Web Design



In this Responsive Web Design Certification, you'll learn the languages that developers use to build webpages: HTML (Hypertext Markup Language) for content, and CSS (Cascading Style Sheets) for design.

First, you'll build a cat photo app to learn the basics of HTML and CSS. Later, you'll learn modern technique. CSS variables by building a penguin panches best practices for accessibility by building a web form.

(/Asr

Finally, you'll learn how to make webpages that respond to different screen sizes by building a Twitter card with Flexbox, and a complex blog layout with CSS Grid.

Note: Some browser extensions, such as ad-blockers and dark mode extensions can interfere with the tests. If you face issues, we recommend disabling extensions that modify the content or layout of pages, while taking the course.

Courses

Basic HTML and HTML5

HTML is a markup language that uses a special syntax or notation to describe the structure of a webpage to the browser. HTML elements usually have opening and closing tags that surround and give meaning to content. For example, different elements can describe text as a heading, paragraph, or list item.

In this course, you'll build a cat photo app to learn some of the most common HTML elements — the building blocks of any webpage.

▼ Collapse courses

28/28

Say Hello to (/learn/responsive-web-design/basic-HTML Elements html-and-html5/say-hello-to-html-

> elements) (/learn)

Menu



- ✔ Headline with (/learn/responsive-web-design/basicthe h2 html-and-html5/headline-with-the-h2-
 - Element element)
- ✓ Inform with the(/learn/responsive-web-design/basic-Paragraph html-and-html5/inform-with-the-Element paragraph-element)
- Fill in the (/learn/responsive-web-design/basic-Blank with html-and-html5/fill-in-the-blank-Placeholder Textwith-placeholder-text)
- ✔ Uncomment (/learn/responsive-web-design/basic-html-HTML and-html5/uncomment-html)
- Comment (/learn/responsive-web-design/basic-htmlout HTML and-html5/comment-out-html)
- ◆ Delete HTML (/learn/responsive-web-design/basic-html-Elements and-html5/delete-html-elements)

- ✓ Introduction (/learn/responsive-web-design/basicto HTML5 html-and-html5/introduction-to-html5-Elements elements)
- ◆ Add Images to (/learn/responsive-web-design/basic-Your Website html-and-html5/add-images-to-yourwebsite)
- ✔ Link to External (/learn/responsive-web-design/basic-Pages with html-and-html5/link-to-external-Anchor Elements pages-with-anchor-elements)
- ✓ Link to Internal (/learn/responsive-webSections of a Page design/basic-html-and-html5/linkwith Anchor (/learn)
 Elements (/learn/responsive-web
 with Anchor (/learn/responsive-web
 with Anchor (/learn/responsive-web
 with Anchor elements)

 (/Asi
- Nest an Anchor (/learn/responsive-web-design/basic-Element within a html-and-html5/nest-an-anchor-Paragraph element-within-a-paragraph)
- Make Dead Links (/learn/responsive-web-design/basic-Using the Hash html-and-html5/make-dead-links-using-Symbol the-hash-symbol)
- ▼ Turn an Image(/learn/responsive-web-design/basicinto a Link html-and-html5/turn-an-image-into-alink)
- Create a (/learn/responsive-web-design/basic-Bulleted html-and-html5/create-a-bulleted-Unordered List unordered-list)
- Create an (/learn/responsive-web-design/basic-html-Ordered Listand-html5/create-an-ordered-list)

- Create a (/learn/responsive-web-design/basic-html-Text Field and-html5/create-a-text-field)
- ◆ Add Placeholder (/learn/responsive-web-design/basic-Text to a Text html-and-html5/add-placeholder-text-Field to-a-text-field)
- Create a (/learn/responsive-web-design/basic-html-Form and-html5/create-a-form-element)
 Flement
- ◆ Add a Submit (/learn/responsive-web-design/basic-Button to a html-and-html5/add-a-submit-button-to-Form a-form)
- Use HTML5 to (/learn/responsive-web-design/basic-Require a html-and-html5/use-html5-to-require-a-Field field)
- Create a Set (/learn/responsive-web-design/basicof Radio html-and-html5/create-a-set-of-radio-Buttons buttons)
- ✔ Create a Set (/learn/responsive-web-design/basicof Checkboxes html-and-html5/create-a-set-ofcheckboxes)
- Check Radio (/learn/responsive-web-design/basic-Buttons and html-and-html5/check-radio-buttons-Checkboxes by and-checkboxes-by-default)

Default

✔ Nest Many (/learn/responsive-web-design/basic-Elements within ahtml-and-html5/nest-many-elements-Single div within-a-single-div-element) Element

- ◆ Define the Head (/learn/responsive-web-design/basicand Body of an html-and-html5/define-the-head-and-HTML Document body-of-an-html-document)

(/learn)

Menu



Basic CSS

CSS, or Cascading Style Sheets, tell the browser how to display the text and other content that you write in HTML. With CSS, you can control the color, font, size, spacing, and many other aspects of HTML elements.

Now that you've described the structure of your cat photo app, give it some style with CSS.

▼ Collapse courses

44/44

- Change the (/learn/responsive-web-design/basic-Color of Text css/change-the-color-of-text)
- ✔ Use CSS (/learn/responsive-web-design/basic-Selectors to css/use-css-selectors-to-style-Style Elements elements)
- ♥ Use a CSS Class (/learn/responsive-web-design/basicto Style an css/use-a-css-class-to-style-an-

```
Element
                  element)
```

- Style Multiple (/learn/responsive-web-Elements with a design/basic-css/style-multipleelements-with-a-css-class) CSS Class
- Change the Font (/learn/responsive-web-design/basic-Size of an css/change-the-font-size-of-an-Element element)
- Set the Font (/learn/responsive-web-design/basic-Family of an css/set-the-font-family-of-an-Element element)
- ▼ Import a /learn/responsive-web-design/basic-Menu css/import-a-google-font) Google Font



- **⊘** Specify How (/learn/responsive-web-design/basic-Fonts Should css/specify-how-fonts-should-degrade) Degrade
- Size Your (/learn/responsive-web-design/basic-**Images** css/size-your-images)
- Add Borders (/learn/responsive-web-design/basic-Around Your css/add-borders-around-your-elements) Elements
- Add Rounded (/learn/responsive-web-design/basiccss/add-rounded-corners-with-border-Corners with border-radius radius)
- Make Circular (/learn/responsive-web-Images with a design/basic-css/make-circularborder-radius images-with-a-border-radius)

- Set the id of (/learn/responsive-web-design/basican Element css/set-the-id-of-an-element)
- Adjust the (/learn/responsive-web-design/basic-Padding of an css/adjust-the-padding-of-an-element) Element
- Add a Negative (/learn/responsive-web-design/basic-Margin to an css/add-a-negative-margin-to-an-Element element)
- ◆ Add Different (/learn/responsive-web-Padding to Each design/basic-css/add-different-Side of an Element padding-to-each-side-of-anelement)
- Add Different (/learn/responsive-web-Margins to Each design/basic-css/add-different-Side of an Element margins-to-each-side-of-anelement)
- Use Clockwise (/learn/responsive-web-Notation to Specify design/basic-css/use-clockwise-

the Padding of an notation-to-specify-the-paddingof-an-element) **Element** ♥ Use Clockwise (/learn/responsive-web-Notation to Specify design/basic-css/use-clockwisethe Margin of an notation-to-specify-the-marginof-an-element) Element **♡** Use Attribute (/learn/responsive-webdesign/basic-css/use-attribute-Selectors to Style Elements selectors-to-style-elements) Understand (/learn/responsive-webdesign/basic-css/understand-Absolute versus Relative Units (/learphlute-versus-relative-units) (/Asr (/learn/responsive-web-design/basic-Style the HTML Body Element css/style-the-html-body-element) **⊘** Inherit Styles (/learn/responsive-web-design/basicfrom the Body css/inherit-styles-from-the-body-Element element) Prioritize One (/learn/responsive-web-design/basiccss/prioritize-one-style-over-Style Over another) Another Override Styles (/learn/responsive-web-design/basiccss/override-styles-in-subsequentin Subsequent CSS css) Override Class (/learn/responsive-web-Declarations by design/basic-css/override-class-Styling ID declarations-by-styling-id-

attributes)

Attributes

- ◆ Override Class (/learn/responsive-web-Declarations with design/basic-css/override-class-Inline Styles declarations-with-inline-styles)
- ✔ Override All Other(/learn/responsive-web-Styles by using design/basic-css/override-all-Important other-styles-by-using-important)
- ✔ Use Hex Code for (/learn/responsive-web-design/basic-Specific Colors css/use-hex-code-for-specific-colors)
- ✔ Use Hex Code to(/learn/responsive-web-design/basic-Mix Colors css/use-hex-code-to-mix-colors)
- Abbreviated (/learn/r css/use-a
 - (/learn/responsive-web-design/basic-Menu css/use abbreviated-hex-code)



- ✔ Use RGB values (/learn/responsive-web-design/basicto Color css/use-rgb-values-to-color-elements) Elements
- ✔ Use RGB to (/learn/responsive-web-design/basic-Mix Colors css/use-rgb-to-mix-colors)
- ✔ Use CSS Variables (/learn/responsive-webto change several design/basic-css/use-csselements at once variables-to-change-severalelements-at-once)
- Create a custom (/learn/responsive-web-design/basic-CSS Variable css/create-a-custom-css-variable)
- Use a custom (/learn/responsive-web-design/basic-CSS Variable css/use-a-custom-css-variable)

- ◆ Attach a Fallback (/learn/responsive-webvalue to a CSS design/basic-css/attach-a-fallback-Variable value-to-a-css-variable)
- Improve (/learn/responsive-web-Compatibility with design/basic-css/improve-Browser Fallbacks compatibility-with-browserfallbacks)
- ✔ Inherit CSS (/learn/responsive-web-design/basic-Variables css/inherit-css-variables)
- Change a variable (/learn/responsive-web-design/basicfor a specific css/change-a-variable-for-aarea (/learn/responsive-web-design/basicmenu for a specific css/change-a-variable-for-aarea (/learn/responsive-web-design/basicmenu for a specific css/change-a-variable-for-a-
- Use a media query (/learn/responsive-web-design/basic^{(/Asi} to change a css/use-a-media-query-to-change-avariable variable)

Applied Visual Design

Visual design is a combination of typography, color theory, graphics, animation, page layout, and more to help deliver your unique message.

In this course, you'll learn how to apply these different elements of visual design to your webpages.

► Expand courses

0 0/52

Applied Accessibility

In web development, accessibility refers to web content and a UI (user interface) that can be understood, navigated, and interacted with by a broad audience. This includes people with visual, auditory, mobility, or cognitive disabilities.

In this course, you'll learn best practices for building webpages that are accessible to everyone.

► Expand courses

0 0/22

Responsive Web Design Principles

There are many devices that can access the web, and they come in all shapes and sizes. Responsive web design is the practice of designing flexible websites that can respond to different screen sizes, orientations, and resolutions.



In this course, you'll learn how to use CSS to make your webpages look good, no matter what device they're viewed on.

▼ Collapse courses

⊘ 4/4

- Create a (/learn/responsive-web-design/responsive-Media web-design-principles/create-a-media-query)
 Query
- Make an (/learn/responsive-web-design/responsive-Image web-design-principles/make-an-image-Responsive responsive)
- ✔ Use a Retina (/learn/responsive-web-Image for Higherdesign/responsive-web-design-Resolution principles/use-a-retina-image-for-

Displays higher-resolution-displays)

Make (/learn/responsive-web-design/responsive-Typography web-design-principles/make-typography-Responsive responsive)

CSS Flexbox

Flexbox is a powerful, well-supported layout method that was introduced with the latest version of CSS, CSS3. With flexbox, it's easy to center elements on the page and create dynamic user interfaces that shrink and expand automatically.

In this course, you'll learn the fundamentals of flexbox and dynamic layouts by building a **Witter** (Menu



▼ Collapse courses

⊘ 17/17

- ✔ Use display: flex (/learn/responsive-web-design/cssto Position Two flexbox/use-display-flex-to-Boxes position-two-boxes)
- Add Flex (/learn/responsive-web-design/css-Superpowers to flexbox/add-flex-superpowers-to-thethe Tweet Embed tweet-embed)
- ✔ Use the flex- (/learn/responsive-web-design/css-direction Propertyflexbox/use-the-flex-direction-to Make a Row property-to-make-a-row)
- ✔ Apply the flex- (/learn/responsive-webdirection Property design/css-flexbox/apply-theto Create Rows in flex-direction-property-tothe Tweet Embed create-rows-in-the-tweet-embed)

- ✔ Use the flex- (/learn/responsive-web-design/css-direction Property flexbox/use-the-flex-direction-to Make a Column property-to-make-a-column)
- ✔ Apply the flex- (/learn/responsive-web-direction Property design/css-flexbox/apply-the-to Create a Column flex-direction-property-to-in the Tweet Embed create-a-column-in-the-tweet-embed)
- ✔ Align Elements (/learn/responsive-web-design/css-Using the justify- flexbox/align-elements-using-thecontent Property justify-content-property)
- © Use the justif**y/learn/**earn/responsive-web-design/GSScontent Property flexbox/use-the-justify-contentin the Tweet Embed property-in-the-tweet-embed)
- Align Elements (/learn/responsive-web-design/css-Using the align- flexbox/align-elements-using-theitems Property align-items-property)
- ✔ Use the align- (/learn/responsive-web-design/cssitems Property in flexbox/use-the-align-itemsthe Tweet Embed property-in-the-tweet-embed)
- ✔ Use the flex-wrap (/learn/responsive-web-design/css-Property to Wrap a flexbox/use-the-flex-wrap-Row or Column property-to-wrap-a-row-or-column)
- ✔ Use the flex- (/learn/responsive-web-design/cssshrink Property toflexbox/use-the-flex-shrink-Shrink Items property-to-shrink-items)
- ♥ Use the flex-grow (/learn/responsive-web-design/css-

Property to flexbox/use-the-flex-grow-property-Expand Items to-expand-items)

- ✔ Use the flex-basis (/learn/responsive-web-Property to Set the design/css-flexbox/use-the-flex-Initial Size of an basis-property-to-set-the-Item initial-size-of-an-item)
- ✔ Use the flex (/learn/responsive-web-design/css-Shorthand flexbox/use-the-flex-shorthand-Property property)
- ✔ Use the order (/learn/responsive-web-design/css-Property to flexbox/use-the-order-property-to-Rearrange Items rearrange-items)
- ✓ Use the align- (/learn) Menu (/learn/responsive-web-design/cssself Property flexbox/use-the-align-self-property)



CSS Grid

The CSS grid is a newer standard that makes it easy to build complex responsive layouts. It works by turning an HTML element into a grid, and lets you place child elements anywhere within.

In this course, you'll learn the fundamentals of CSS grid by building different complex layouts, including a blog.

▼ Collapse courses

- 22/22
- Create Your (/learn/responsive-web-design/css-First CSS Grid grid/create-your-first-css-grid)
- Add Columns with (/learn/responsive-web-design/css-

grid-tempiate- grid/add-columns-with-grid-tempiate-

columns columns)

- Add Rows with (/learn/responsive-web-design/cssgrid-template- grid/add-rows-with-grid-templaterows rows)
- ◆ Use CSS Grid units (/learn/responsive-webto Change the Size design/css-grid/use-css-gridof Columns and Rows units-to-change-the-size-ofcolumns-and-rows)
- ✔ Create a Column (/learn/responsive-web-design/css-Gap Using grid- grid/create-a-column-gap-usingcolumn-gap grid-column-gap)
- Create a Row Gap (/learn/responsive-web-design/cssusing grid-row- grid/create-a-row-gap-using-gridgap row-gap)
 Menu
 Menu
 Menu
 gap



- ◆ Add Gaps Faster (/learn/responsive-web-design/csswith grid-gap grid/add-gaps-faster-with-grid-gap)
- ✔ Use grid-column (/learn/responsive-web-design/cssto Control grid/use-grid-column-to-control-Spacing spacing)
- Use grid-row to (/learn/responsive-web-design/css-Control Spacing grid/use-grid-row-to-control-spacing)
- ✔ Align an Item (/learn/responsive-web-design/css-Horizontally using grid/align-an-item-horizontallyjustify-self using-justify-self)
- ✔ Align an Item (/learn/responsive-web-design/css-Vertically using grid/align-an-item-vertically-

align-self

using-align-self)

✔ Align All Items (/learn/responsive-web-design/css-Horizontally using grid/align-all-items-horizontallyjustify-items using-justify-items)

Align All Items Vertically using align-items (/learn/responsive-web-design/cssgrid/align-all-items-verticallyusing-align-items)

✔ Divide the Grid Into an Area Template

(/learn/responsive-web-design/cssgrid/divide-the-grid-into-an-areatemplate)

Place Items in Grid (/learn/responsive-web-design/css-Areas Using the grid/place-items-in-grid-areasgrid-area Prop(//learns)ing-the-grid-area-property)enu

(/Ası

✔ Use grid-area Without Creating an Areas Template (/learn/responsive-web-design/cssgrid/use-grid-area-withoutcreating-an-areas-template)

Reduce Repetition Using the repeat Function (/learn/responsive-web-design/cssgrid/reduce-repetition-using-therepeat-function)

✓ Limit Item Size
Using the minmax
Function

(/learn/responsive-web-design/cssgrid/limit-item-size-using-theminmax-function)

Create Flexible
Layouts Using
auto-fill

(/learn/responsive-web-design/cssgrid/create-flexible-layouts-usingauto-fill)

◆ Create Flexible
 Layouts Using
 auto-fit

(/learn/responsive-web-design/cssgrid/create-flexible-layouts-usingauto-fit)

- ✔ Use Media Queries (/learn/responsive-web-design/cssto Create grid/use-media-queries-to-create-Responsive Layouts responsive-layouts)
- Create Grids (/learn/responsive-web-design/csswithin Grids grid/create-grids-within-grids)

Responsive Web Design Projects

Time to put your newly learnt skills to work. By working on these projects, you will get a chance to apply all of the skills, principles, and concepts you have learned so far: HTML, CSS, Visual Design, Accessibility, and more.

Complete the five well (Aleann) ming projects below to earn your Menu Responsive Web Design certification.



(/learn/responsive-web-design/responsive-Build a web-design-projects/build-a-tribute-page) Tribute Page Build a Survey web-design-projects/build-a-survey-form) Form Build a Product design/responsive-web-designprojects/build-a-product-landing-page) Landing Page Build a Technical design/responsive-web-designprojects/build-a-technical-Documentation

documentation-page)

Page

Personal Portfolio Webpage

11/17/21, 5:54 PM

design/responsive-web-designprojects/build-a-personal-portfolio-

webpage)

Claim Your Certification

Complete the following steps to claim and view your Responsive Web Design Certification

► Expand courses

O 4/5

Browse our other free certifications (we recommend doing these in order)



JavaScript Algorithms and Data (/learn/javascript-Structures Certification algorithms-and-data-(300 hours) structures/)



Front End Development Libraries (/learn/front-end-Certification (300 hours) development-libraries/)



Data Visualization Certification (/learn/data-(300 hours) visualization/)



Back End Development and APIs

(/learn/back-end-



Certification (300 hours)

development-and-apis/)



Quality Assurance Certification (300 hours)

(/learn/qualityassurance/)



Scientific Computing with Python Certification (300 hours)

(/learn/scientificcomputing-with-python/)



Data Analysis with Python Certification (300 hours) (/learn/data-analysiswith-python/)



Information Security
Certification (300 hours)

(/learn/informationsecurity/)



Machine Learning with Python Certification (300 hours)

(/learn/machinelearning-with-python/)



Coding Interview Prep (Thousands of (/learn/coding-hours of challenges) interview-prep/)

freeCodeCamp is a donor-supported tax-exempt 501(c)(3) nonprofit organization (United States Federal Tax Identification Number: 82-0779546)

Our mission: to help people learn to code for free. We accomplish this by creating thousands of videos, articles, and interactive coding lessons - all freely available to the public. We also have thousands of freeCodeCamp study groups around the world.

Donations to freeCodeCamp go toward our education initiatives, and help pay for servers, services, and staff.

You can make a tax-deductible donation here (/donate).

Trending Guides

Big O Notation (https://www.freecodecamp.org/news/big-o-notation-examples-time-complexity-explained/)

SQL Outer Join (https://www.freecodecamp.org/news/sql-outer-join-tutorial-with-example-syntax/)

Python For Loop (https://www.freecodecamp.org/news/python-for-loop-for-i-in-range-example/)

What is JavaScript? (https://www.freecodecamp.org/news/what-is-javascript-definition-of-js/)

Learn How To Code (https://www.freecodecamp.org/news/how-to/)

Chrome Bookmarks (https://www.freecodecamp.org/news/chrome-bookmarks-location-guide-how-to-delete-or-recover-a-bookmark/)

Concatenate Excel (https://www.freecodecamp.org/news/concatenate-in-excel-how-to-combine-text-and-concat-strings/)

C# String to Int (https://www.freecodecamp.org/news/how-to-convert-a-string-to-an-int-in-c-tutorial-with-example-code/)

Git Switch Branch (https://www.freecodecamp.org/news/git-switch-branch/)

JavaScript Splice (https://www.freecodecamp.org/news/javascript-splice-how-to-use-the-splice-js-array-method/)

HTML Link (https://www.freecodecamp.org/news/html-button-link-code-examples-how-to-make-html-hyperlinks-using-the-href-attribute-on-tags/)

Bayes Rule (https://www.freecodecamp.org/news/bayes-rule-explained/)

Python Map (https://www.freecodecamp.org/news/python-map-function-how-to-map-a-list-in-python-3-0-with-example-code/)

HTML Italics (https://www.freecodecamp.org/news/html-italics-tutorial-how-to-make-text-italic-with-the-i-tag/)

Python SQL (https://www.freecodecamp.org/news/python-sql-how-to-use-sql-databases-with-python/)

HTML Bold (https://www.freecodecamp.org/news/html-bold-text-tutorial-how-to-use-the-b-tag/)

GraphQL VS Rest (https://www.freecodecamp.org/news/graphql-vs-rest-benefits-and-code-example-comparisons/)

If Function Excel (https://www.freecodecamp.org/news/if-function-excel-tutorial-and-how-to-do-multiple-if-statements-in-excel/)

HTML List (https://www.freecodecamp.org/news/html-list-how-to-use-bullet-points-ordered-and-unordered-lists/)

Wav File (https://www.freecodecamp.org/news/wav-file-format-how-to-open-a-wav-and-convert-wavs-to-mp3/)

Model View Controller

(https://www.freecodecamp.org/news/the-model-view-controller-pattern-mvc-architecture-and-frameworks-explained/)

Git Checkout Remote Branch (https://www.freecodecamp.org/news/git-

checkout-remote-branch-tutorial/)

Insert Checkbox in Word

(https://www.freecodecamp.org/news/how-to-insert-a-checkbox-in-word/)

Find and Replace in Word (https://www.freecodecamp.org/news/find-and-replace-in-word-a-microsoft-office-tutorial/)

C Programming Language (https://www.freecodecamp.org/news/whatis-the-c-programming-language-beginner-tutorial/) **Subnet Cheat Sheet**

(https://www.freecodecamp.org/news/subnet-cheat-sheet-24-subnet-mask-30-26-27-29-and-other-ip-address-cidr-network-references/)

String to Char Array Java (https://www.freecodecamp.org/news/string-to-char-array-java-tutorial/)

JavaScript Append to Array (https://www.freecodecamp.org/news/javascript-append-to-array-a-js-guide-to-the-push-method-2/)

Add Page Numbers in Word (https://www.freecodecamp.org/news/page-

numbers-in-word-tutorial-how-to-insert-a-page-lava Script Projects of t-word/) (https://www.freecodecamp.org/news/javascript-projects-for-beginners/)

Our Nonprofit

About (https://www.freecodecamp.org/news/about/)

Alumni Network (https://www.linkedin.com/school/free-code-camp/people/)

Open Source (https://github.com/freeCodeCamp/) Shop (https://www.freecodecamp.org/shop/)

Sponsors (https://www.freecodecamp.org/news/sponsors/)

Academic Honesty (https://www.freecodecamp.org/news/academic-honesty-policy/)

Code of Conduct (https://www.freecodecamp.org/news/code-of-conduct/)

Privacy Policy (https://www.freecodecamp.org/news/privacy-policy/)

Terms of Service (https://www.freecodecamp.org/news/terms-of-service/)

Copyright Policy (https://www.freecodecamp.org/news/copyright-policy/)