

Mastering CSS with Mark Lassoff

Welcome!

Cascading Style Sheets (CSS) is the often ignored, but critically component of digital development that can be the difference between an effective web site and one that performs poorly. CSS is the language of style and determines how elements appear on a web site.

CSS is a language of visuals-- which may seem strange to some. Using code to describe the visual appearance of elements may seem almost antithetical to some. However, you will quickly become used to CSS's easy syntax and simple to use rules.

From a career perspective, understanding how to manipulate CSS well can be a giant boost to your career. Many misunderstand (and misuse) CSS and being able to use the language well can set you apart from others in the development space.

I do hope you find the program useful and complete the certification program.

Mark Lassoff, Course Author

Earning Your Certification

Completing this course will make you eligible to earn the CSS3 Specialist Designation (2019) from Framework Television. This certification is designed to represent a fundamental understanding of the CSS3 markup language, and it's applicability to web

development and mobile development. There are three steps to certification:

1. Complete all of the Sections in the Mastering CSS course. You'll complete a section by reading the section guide (You're doing that now!), watching the associated video(s), and completing the code exercises.
2. Submit a correct solution to the Lab exercise at the end of each chapter. These are critical as learning to code is not a spectator sport!
3. Ask an instructor to validate that you are ready for certification. If you have completed all the sections of the course program, you will be certified.

Upon earning certification, your certificate will be displayed and validated by Credential.net. You'll be provided with a URL that you can use as your proof of certification. Credential.net will also allow you to link the certification to your LinkedIn account— And it is highly recommended that you do so.

**Note: As of the 2019 edition of our certification program, we no longer require an online exam to earn your certification. We felt that completing the lab exercises was better proof of your programming ability than a multiple choice exam. **

Watch This, Do This, Debug This, Submit This

Sections of your course guides will be labeled "Watch This", "Do This", "Debug This" or "Submit This". For these sections:

Watch This: This section will provide you with a link to video content that is part of the course.

Do This: This is an activity that you should complete. If you have difficulty seek help in the support forum.

Debug This: Sections labeled debug this contain code that has errors or problems. Make corrections to ensure the code renders the expected output.

Submit This: This is work you must submit to earn your certification. When submitting the work, please use the following naming convention for your file:

MASTERINGCSS_LastName_SectionNumber.

html. So if your last name is Smith and your submitting section 8, your file name should be

MASTERINGCSS_Smith_8.html.

For this course go to <https://www.dropbox.com/request/I5ZuBmkJjf0keEqRQHwK> submit your assignments.

Section 1: First CSS Stylesheets

After completing this section you will:

- Be Able to Use in-line CSS
- Understand how to post CSS in the head of the document
- Understand how to attach CSS in an external file using the **link** tag.
- Apply the basic Structure of a CSS selector and rule

HTML Document Example

We need to have some HTML that we can use to apply our CSS to. In this section, we're going to use the following CSS to get started. This document is

about Norwalk, Connecticut, where the Framework Television studios are located.

```
<!DOCTYPE html>
<html>
  <head>
    <title>A Little CSS</title>
  </head>
  <body>
    <h1>Norwalk, CT</h1>
    <p>Norwalk is a U.S. city located in southwestern Connecticut, in southern Fairfield County, on the northern shore of Long Island Sound. Norwalk is included statistically within both the New York metropolitan area as well as the Bridgeport metropolitan area.<p>
      <p>Norwalk was settled in 1649, and is now the sixth most populous city in Connecticut. According to the 2010 United States Census the city had a population of 85,603; with an estimated population of 88,438 in 2016.</p>
    </body>
  </html>
```

This document includes the standard HTML5 basic document structure. The content includes a heading, a couple of paragraphs of content and an image.

The screenshot below shows the document without any CSS styles attached. All elements are styled according to the browser's **default style sheet**.

Norwalk, CT



Norwalk is a U.S. city located in southwestern Connecticut, in southern Fairfield County, on the northern shore of Long Island Sound. Norwalk is included statistically within both the New York metropolitan area as well as the Bridgeport metropolitan area.

Norwalk was settled in 1649, and is now the sixth most populous city in Connecticut. According to the 2010 United States Census the city had a population of 85,603; with an estimated population of 88,438 in 2016.

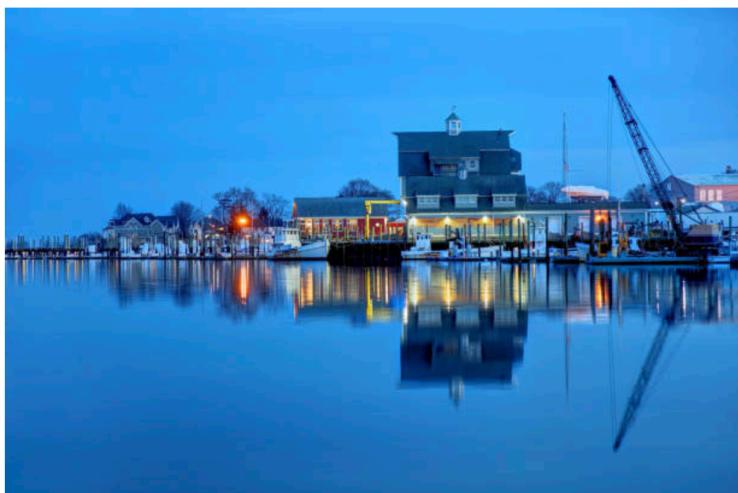
Inline Styles

Inline styles are placed as an attribute in the opening tag of an HTML element. We'll place an inline style in the `h1` tag in the document we created above:

```
<h1 style="color: blue;">Norwalk, CT</h1>
```

Using the `style` attribute, we place the CSS rule inside quotes as the `value`. This combination will make the content of the `h1` element turn blue.

Norwalk, CT



Norwalk is a U.S. city located in southwestern Connecticut, in southern Fairfield County, on the northern shore of Long Island Sound. Norwalk is included statistically within both the New York metropolitan area as well as the Bridgeport metropolitan area.

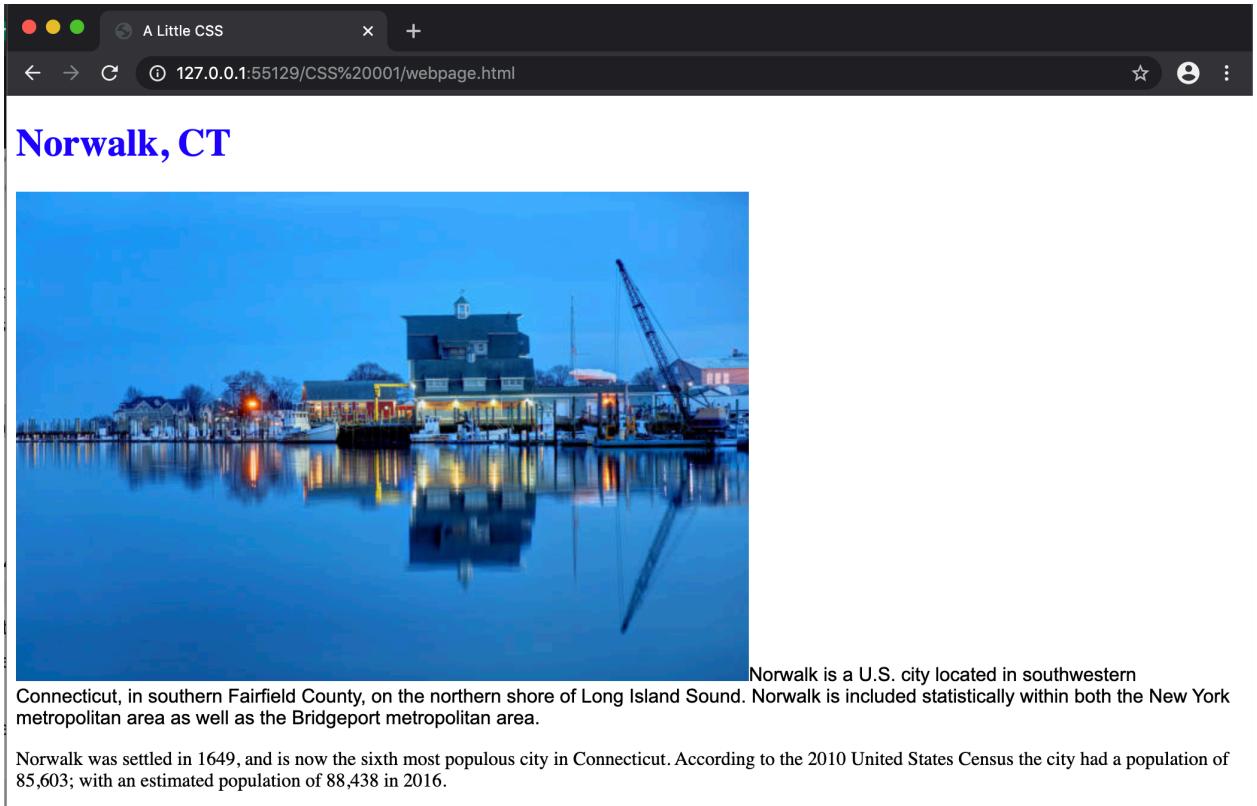
Norwalk was settled in 1649, and is now the sixth most populous city in Connecticut. According to the 2010 United States Census the city had a population of 85,603; with an estimated population of 88,438 in 2016.

You may use inline styles with just about any HTML element. For example, we could also add a style to our first **p** tag in the document:

```
<p style="font-family: Arial;">
```

This style rule will affect all of the text content inside the first **p** element. The rule will render the content in the Arial font (as long as it's available on the user's machine).

Notice how the type is rendered in the screenshot below.



A screenshot of a web browser window. The title bar says "A Little CSS". The address bar shows "127.0.0.1:55129/CSS%20001/webpage.html". The main content area has a blue header with the text "Norwalk, CT" in white. Below the header is a large, vertical photograph of a waterfront at night. The water is calm, reflecting the lights from buildings and a crane in the background. The buildings have warm, glowing windows. The overall scene is a peaceful harbor at dusk or night.

Norwalk is a U.S. city located in southwestern Connecticut, in southern Fairfield County, on the northern shore of Long Island Sound. Norwalk is included statistically within both the New York metropolitan area as well as the Bridgeport metropolitan area.

Norwalk was settled in 1649, and is now the sixth most populous city in Connecticut. According to the 2010 United States Census the city had a population of 85,603; with an estimated population of 88,438 in 2016.

If we wanted to make all the text appear in the Arial typeface, the inline style technique might be inconvenient because we'd have to style every **p** tag in the document individually. (If we changed our mind later, we'd have to replace every incident of Arial as well!)

Because of the inconvenience of inline styles and difficulty of maintenance of the document, in general, inline styles are often not optimal for production.

The one exception for usage of inline styles is in the production of HTML5 emails. When producing HTML5 emails, you almost always have to use inline styles.

Styles in the document head

A second, and perhaps superior location, for placing styles is the document **head**.

Styles in the head of the document are placed inside a **style** element located in the document **head**. Let's create our first style in the document **head**.

Just after the **title** element place the following code:

```
<style>
h1 {
    color: firebrick;
}
</style>
```

In this context **h1** is called the **selector** and indicates that the style rule will be applied to all **h1** tags in the document. The rule, of course, will color all the **h1** elements firebrick red.

After the **h1** selector rule, let's go ahead and create an additional rule for the **p** tags.

```
p {
    font-size: 14pt;
    font-family: Arial;
}
```

In the rule above we used the **p** selector to apply the rule to all the **p** tags in the document. The rules will render the font in size 14 point and use the typeface Arial.

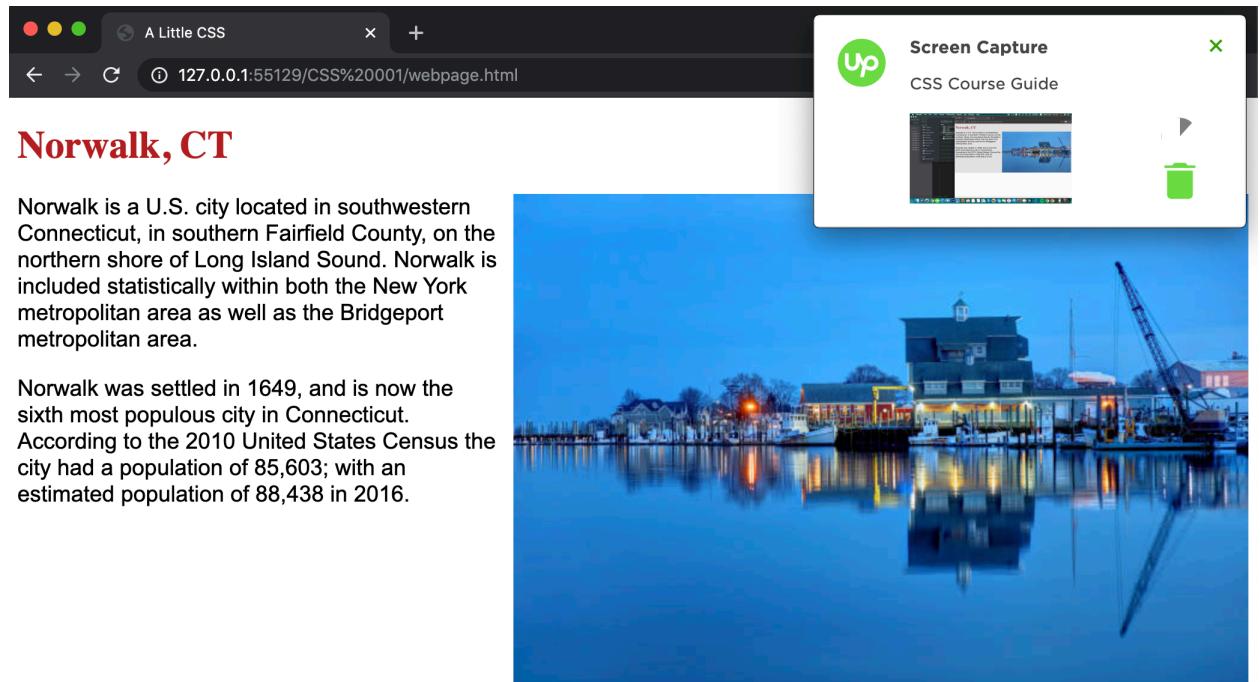
CSS rules can apply to non-text elements as well. Let's set a style rule on our image, so the text flows around it better.

Add to your stylesheet:

```
img {  
    float: right;  
    padding-left: 10px;  
}
```

This rule will cause the image to float on the right side of the text and create a 10-pixel gap between the text and image, giving it some breathing space.

Let's see what our document looks like now:



This is a vast improvement over the previous version!

Hopefully, you can see why placing stylesheets in the head is superior to using inline styles. For larger HTML5 based sites and applications, however, there is one more way of attaching CSS that might be best.

Attaching an external stylesheet with link

First, we'll create a new blank text document called **styles.css**. Be sure to save the new document in the same folder as your HTML document.

Next, we're going to move all of the styles from the original document into the new document we created.

```
h1 {  
    color: firebrick;  
}  
p {  
    font-size: 14pt;  
    font-family: Arial;  
}  
img {  
    float: right;  
    padding-left: 10px;  
}
```

Note that the **style** tags are not used in an external document. Once the styles are placed in the external **styles.css** document, we'll save the document.

Next, we'll place a link to the stylesheet in our original HTML. This is done with the **link** tag. Place the **link** tag in the head section of the HTML document.

```
<link rel="stylesheet" href="styles.css" />
```

The link tag has two required attributes. The first, **rel**, provides the relationship of the link to the document itself. The value should always be **stylesheet**. The **href** attribute directs to the css file itself.

Once you've moved your styles to the external file and added your `link` element, display your document again. Your document should appear identical as to the last view.

The reason that most developers prefer to use external stylesheets is that they can be attached to multiple pages allowing your styles to be consistent from page to page. External stylesheets can also ease maintenance, as you can adjust styles from a single location instead of page by page.

Debug This:

There are errors in this code preventing it from displaying the information about the CSS Specialist Certification correctly. Fix the errors, so the information displays correctly in your browser like this:



CSS SPECIALIST CERTIFICATION

As a Certified CSS Specialist, you are qualified to write, maintain, and edit CSS documents. You'll be able to help development teams make content appealing and use CSS as an important piece of being a strong developer.

In this certification program you will learn:

- How to create and write proper CSS code and link it to your website
- How CSS works and how to select certain elements on your page
- How to change the colors, fonts, and background on your website
- How to select the most efficient tools and environments for CSS
- IDs and Classes, which link elements to CSS code
- How to use the box model to achieve the best spacing for your content
- How to use CSS Animations and
- Transitions to get the user's attention
- Strategic usage of CSS comments to document your code
- How to place the content on your screen in the way you want
- How to create list based content using ordered lists, unordered lists, and custom list bullets for custom branding
- How to make your website look the way you want on all devices

In summary, certified CSS specialists are experts who are able to correctly construct CSS documents that can take any application to the next level. They are able to understand how CSS fits into the larger context of web and mobile development and work in serious development environments.

Here's the code to debug.

```
<!DOCTYPE html>
<html>
  <head>
    <title>CSS Specialist Certification</title>
    <style>
      h1{
        font-face: Georgia
        font-variant: small-caps;
      }
      style:p {
        font-face: Helvetica;
      }
      ul {
        font-face: Helvetica;
      }
    </head>
    <body>
      <h1>CSS Specialist Certification</h1>
      <p>As a Certified CSS Specialist, you are qualified to
      write, maintain, and edit CSS documents. You'll be able to help
      development teams make content appealing and use CSS as an
      important piece of being a strong developer.
      <p>In this certification program you will learn:
      <ul>
        <li>How to create and write proper CSS code and link it to
        your website</li>
        <li>How CSS works and how to select certain elements on
        your page</li>
        <li>How to change the colors, fonts, and background on your
        website</li>
        <li>How to select the most efficient tools and environments
        for CSS</li>
        <li>IDs and Classes, which link elements to CSS code
        <li>How to use the box model to achieve the best spacing for
        your content</li>
        <li>How to use CSS Animations and <li>Transitions to get the
        user's attention</li>
```

```
<li>Strategic usage of CSS comments to document your  
code</li>  
<li>How to place the content on your screen in the way you  
want</li>  
<li>How to create list based content using ordered lists,  
unordered lists, and custom list bullets for custom branding</li>  
<li>How to make your website look the way you want on all  
devices</li>  
</ul>  
<p>In summary, certified CSS specialists are experts who  
are able to correctly construct CSS documents that can take any  
application to the next level. They are able to understand how  
CSS fits into the larger context of web and mobile development  
and work in serious development environments.</p>  
</body>  
</html>
```

Submit This: My Hometown

Create an HTML5 document about your hometown, similar to the Norwalk, Connecticut document introduced in this section. You must include at least two paragraphs of content and one picture. Using any CSS that you've learned so far or that you already know style the document with an external stylesheet. Attempt to make the document appear pleasing.

Zip both your HTML document and CSS document together before submission.

Remember, when submitting the work, please use the following naming convention for your file: **MASTERINGCSS_LastName_SectionNumber.html**. So if your last name is Smith and your submitting section 1, your file name should be **MASTERINGCSS_Smith_1.html**.

For this course go to <https://www.dropbox.com/request/I5ZuBmkJjf0keEqRQHwK> to submit your assignments.