

# CIS 300

## Web Design and Development

### Chapter 5 | Graphics & Text Styling Basics

## Learning Objectives

2

- Describe types of graphics used on the Web
- Apply the image element to add graphics to web pages
- Configure images as backgrounds on web pages
- Configure images as hyperlinks
- Configure multiple background images with CSS3
- Configure text typeface, size, weight, and style with CSS
- Align and indent text with CSS
- Configure list markers with CSS
- Configure an image map

## Types of Graphics

3

- Graphic types commonly used on web pages:
  - GIF
  - JPG
  - PNG

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
 SCHOOL OF BUSINESS  
 ARIZONA STATE UNIVERSITY

## GIF

4

Background  
color configured  
to be  
transparent

GIF saved with  
Transparency

GIF saved without  
Transparency

Background  
color – no  
transparency

- Graphics Interchange Format
- Best used for line art and logos
- Maximum of 256 colors
- One color can be configured as transparent
- Can be animated
- Uses lossless compression
- Can be interlaced

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
 SCHOOL OF BUSINESS  
 ARIZONA STATE UNIVERSITY

## JPEG

5

- Joint Photographic Experts Group
- Best used for photographs
- Up to 16.7 million colors
- Use lossy compression
- Cannot be animated
- Cannot be made transparent
- Progressive JPEG – similar to interlaced display



Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## PNG

6

- Portable Network Graphic
- Support millions of colors
- Support multiple levels of transparency  
(but browsers do not --  
so limit to one transparent color for Web display)
- Support interlacing
- Use lossless compression
- Combines the best of GIF & JPEG
- Browser support is growing

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## Image Optimization

7

- The process of creating an image with the lowest file size that still renders a good quality image— **balancing image quality and file size.**
- Photographs taken with digital cameras are not usually optimized for the Web.
- Use a graphics application to:
  - Reduce image dimensions
  - Reduce size of the image file



Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## Optimize An Image for the Web

8

- Image Editing Tools:
  - GIMP (free!)
  - Adobe Fireworks
  - Adobe Photoshop
  - <http://pixlr.com/editor> (free!)

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## Choosing Names for Image Files

9

- Use all lowercase letters
- Do not use punctuation symbols and spaces
- Do not change the file extensions (should be .gif, .jpg, .jpeg, or .png)
- Keep your file names short but descriptive
  - i1.gif is probably too short
  - myimagewithmydogonmybirthday.gif is too long
  - dogbday.gif may be just about right

## The Image Element <img>

10

- Configures graphics on a web page

```

```

- **src Attribute**
  - File name of the graphic
- **alt Attribute**
  - Configures alternate text content (description)
- **height Attribute**
  - Height of the graphic in pixels
- **width Attribute**
  - Width of the graphic in pixels

## Accessibility & Images

11

- Required:
  - Configure the alt attribute
    - Alternate text content to convey the meaning/intent of the image
    - If the image contains a text message, then the text should typically be the value of the alt attribute
    - NOT the file name of the image
    - Use alt="" for purely decorative images
- Recommended:
  - If your site navigation uses image links for the main navigation, provide simple text links at the bottom of the page.

## Image Links

12

- To create an image link use an anchor element to contain an image element

```
<a href="index.html"></a>
```



Home

- Browsers automatically add a border to image links.
- Configure CSS to eliminate the border
 

```
img {border-style: none; }
```



## Thumbnail Image

13

- A small image configured to link to a larger version of that image.

```
<a href="large.jpg"></a>
```



Copyright © 2016 Pearson Education, Inc., Hoboken NJ

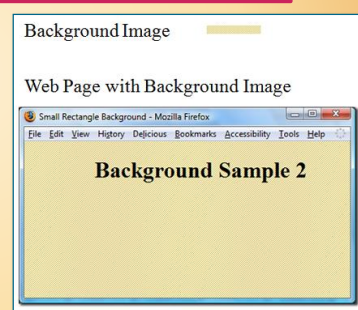
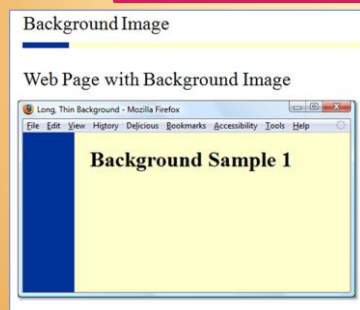
ASU W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## CSS background-image Property

14

- Configures a background-image
- By default, background images tile (repeat)

```
body { background-image: url(background1.gif); }
```

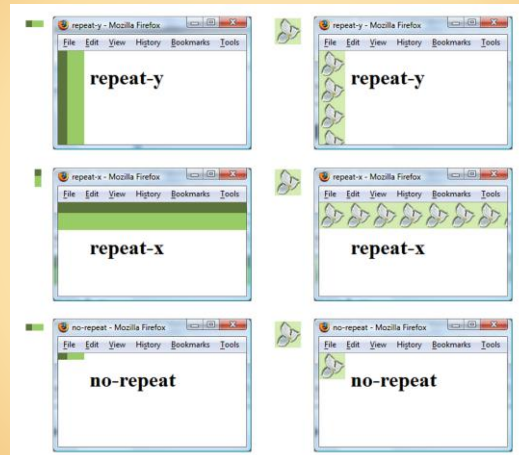


Copyright © 2016 Pearson Education, Inc., Hoboken NJ

ASU W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## CSS background-repeat Property

15




Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
 SCHOOL OF BUSINESS  
 ARIZONA STATE UNIVERSITY

## Using background-repeat

16

- trilliumbullet.gif: 

```
h2 { background-color: #d5edb3;
      color: #5c743d;
      padding-left: 30px;
      background-image: url(trilliumbullet.gif);
      background-repeat: no-repeat;
    }
```

 **New Media and Web Design**

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
 SCHOOL OF BUSINESS  
 ARIZONA STATE UNIVERSITY



## CSS3 Multiple Background Images

17

```
body { background-color: #f4ffe4;
color: #333333;
background-image: url(trilliumgradient.png);
background: url(trilliumfoot.gif)
no-repeat bottom right,
url(trilliumgradient.png); }
```



Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## Configure Typeface with CSS

18

- font-family property
  - Configures the font typeface of the text
  - Include a generic family name

```
p { font-family: Verdana, Arial, sans-serif; }
```

Font Family Category	Font Family Description	Font Typeface Examples
serif	Serif fonts have small embellishments on the end of letter strokes; often used for headings.	Times New Roman, Georgia, Palatino
sans-serif	Sans-serif fonts do not have serifs; often used for web page text.	Arial, Tahoma, Helvetica, Verdana
monospace	Fixed-width font; often used for code samples.	Courier New, Lucida Console
cursive	Hand-written style; use with caution; may be difficult to read on a web page.	Lucida Handwriting, Brush Script, Comic Sans MS
fantasy	Exaggerated style; use with caution; sometimes used for headings; may be difficult to read on a web page.	Jokerman, Impact, Papyrus

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## The font-size Property

19

- font-size property
  - Configures the size of text
  - Accessibility Recommendation:
    - Use em or percentage font sizes – these can be easily enlarged in all browsers by users

```
p { font-size: 90%; }
```

Text Values	Em Units	Px Units	Pt Units	Percentage
xx-small	.5 em	8 px	6 pt	50%
x-small	.60 em	11 px	8 pt	60%
small	.75 em	13 px	10 pt	75%
medium	1 em	16 px	12 pt	100%
large	1.15 em	18 px	13.5 pt	110%
x-large	1.5 em	24 px	18 pt	150%
xx-large	2 em	30 px	24 pt	200%

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## Align and Indent Text with CSS

20

- text-align property
  - Configures the alignment of text

```
h1 { text-align: center; }
```

- text-indent property
  - Configures the indentation of the first line of text in an element

```
p { text-indent: 5em; }
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## More CSS Text Properties

21

- font-weight property
  - Configures the boldness of text

```
li {font-weight: bold; }
```

- font-style property
  - Configures the style of the text

```
#special { font-style: italic; }
```

- line-height property
  - Modifies the height of a line of text

```
p { line-height: 120%; }
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## More CSS Text Properties

22

- text-decoration property
  - Modifies the display of text. Typically used to remove the default underline from hyperlinks.

```
a { text-decoration: none; }
```

- text-transform property
  - Configures the capitalization of text

```
h3{ text-transform: uppercase; }
```

- letter-spacing property
  - Configures the space between text characters

```
h1 { letter-spacing: 3px; }
```

Copyright © 2016 Pearson Education, Inc., Hoboken NJ

**ASU** W.P. CAREY  
SCHOOL OF BUSINESS  
ARIZONA STATE UNIVERSITY

## Configure List Markers with CSS

23

- CSS Properties
  - list-style-type
  - list-style-image
  - list-style position

Example:

```
ul {list-style-image: url(trillium.gif); }
```



## Favorites Icon

24

- Small icon that displays in the address bar or tab bar of some browsers.
- Also called a favicon

```
<link rel="icon" href="favicon.ico" type="image/x-icon">
```





**See you in the next video!**