

```
<link href="filename"
type="text/css" rel="stylesheet"
/>
```

CSC443: Web Programming

## HTML id attribute

```
<p>Coding Horror! Coding Horror!</p>
<p id="mission">Our mission is to combine programming and
<q>human</q> factors with geekiness!</p>
```

HTML

Coding Horror! Coding Horror!

Our mission is to combine programming and “human” factors with geekiness!

output

- ❑ A unique ID for an element on a page
- ❑ Each ID must be unique; can only be used once in the page



# Linking to sections of a web page

3

```
<p>Visit <a href=
"http://www.textpad.com/download/index.html#downloads">
textpad.com</a> to get the TextPad editor.</p>
<p><a href="#mission">View our Mission Statement</a></p>
```

HTML

Visit [textpad.com](http://www.textpad.com/download/index.html#downloads) to get the TextPad editor.

[View our Mission Statement](#)

output

- ❑ Link target can include an ID at the end, preceded by a #
- ❑ Browser will load that page and scroll to element with given ID

CSC443: Web Programming

## CSS ID selectors

4

```
#mission {
font-style: italic;
font-family: "Garamond", "Century Gothic", serif;
}
```

CSS

Coding Horror! [Coding Horror!](#)

*Our mission is to combine programming and “human” factors with geekiness!*

output

- ❑ Applies style only to the paragraph that has the ID of mission

CSC443: Web Programming

# HTML class attribute

5

```
<p class="shout">Coding Horror! Coding Horror!</p>
<p class="special">See our special deal on Droids!</p>
<p class="special">Today only!</p>
```

HTML

Coding Horror! Coding Horror!

See our special deal on Droids!

Today only!

output

- A way to group some elements and give a style to only that group
- Unlike an id, a class can be reused as much as you like on the page

CSC443: Web Programming



# CSS class selectors

6

```
.special {
background-color: yellow;
font-weight: bold;
}
p.shout {
color: red;
font-family: cursive;
}
```

CSS

Coding Horror! Coding Horror!

See our special deal on Droids!

Today only!

output

CSC443: Web Programming



# CSS class selectors

7

```
<p class="shout">Coding Horror! Coding Horror!</p>
<p class="special">See our special deal on Droids!</p>

<p class="special shout">Today only!</p>
```

HTML

Coding Horror! Coding Horror!

See our special deal on Droids!

Today only!

output

CSC443: Web Programming



# CSS ID selectors

8

```
a:link { color: #FF0000; } /* unvisited link */
a:visited { color: #00FF00; } /* visited link */
a:hover { color: #FF00FF; } /* mouse over link */
```

CSS

Buy Early Buy Often!

output

CSC443: Web Programming

# CSS ID selectors

9

class	description
:active	an activated or selected element
:focus	an element that has the keyboard focus
:hover	an element that has the mouse over it
:link	a link that has not been visited
:visited	a link that has already been visited
:first-letter	the first letter of text inside an element
:first-line	the first line of text inside an element
:first-child	an element that is the first one to appear inside another

CSC443: Web Programming

10

## Styling Page Sections

CSC443: Web Programming

# Why do we need page sections?

11

- Style individual elements, groups of elements, sections of text or of the page
- Create complex page layouts



CSC443: Web Prog

## Sections of a page <div>

12

```
<div class="shout">
<h2>Coding Horror! Coding Horror!</h2>
<p class="special">See our special deal on Droids!</p>
<p>We'll beat any advertised price!</p>
</div>
```

HTML

**Coding Horror! Coding Horror!**

**See our special deal on Droids!**

We'll beat any advertised price!

output

- Tag used to indicate a logical section or area of a page
- Has no appearance by default, but you can apply styles to it



# Inline Sections <span>

13

```
<h2>Coding Horror! Coding Horror!</h2>
<p>See our <span class="special">spectacular</span> deal
on Droids!</p>
<p>We'll beat <span class="shout"> any advertised
price</span>!</p>
```

HTML

**Coding Horror! Coding Horror!**

See our **spectacular** deal on Droids!

We'll beat **any advertised price!**

output

- has no onscreen appearance, but you can apply a style or ID to it, which will be applied to the text inside the span

CSC443: Web Programming



## CSS context selectors

14

```
selector1 selector2 {
  properties
}
```

CSS

- applies the given properties to selector2 only if it is inside a selector1 on the page

```
selector1 > selector2 {
  properties
}
```

CSS

- applies the given properties to selector2 only if it is *directly* inside a selector1 on the page

CSC443: Web Programming

# Context selector example

15

```
<p>Eat at <strong>Greasy's Burger</strong>...</p>
<ul>
<li>The <strong>greasiest</strong> burgers in town!</li>
<li>Yummy and greasy at the same time!</li>
</ul>
```

HTML

```
li strong { text-decoration: underline; }
```

CSS

Eat at **Greasy's Burger**...

- The **greasiest** burgers in town!
- Yummy and greasy at the same time!

output

CSC443: Web Programming



# More complex example

16

```
<div id="ad">
<p>Eat at <strong>Greasy's Burger</strong>...</p>
<ul>
<li class="important">The <strong>greasiest</strong>
burgers in town!</li>
<li>Yummy and <strong>greasy at the same time
</strong>!</li>
</ul>
</div>
```

HTML

```
#ad li.important strong { text-decoration: underline; }
```

CSS

Eat at **Greasy's Burger**...

- The **greasiest** burgers in town!
- Yummy and **greasy at the same time!**

output

CSC443: Web Programming



# The CSS Box Model

17

- Every element composed of:

- ▣ content
- ▣ a border around the element
- ▣ padding between the content and the border
- ▣ a margin between the border and other content

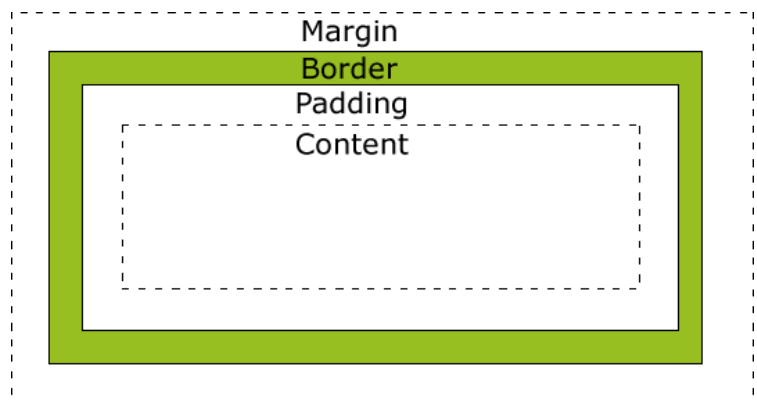


CSC443: Web Programming

## The CSS Box Model (cont.)

18

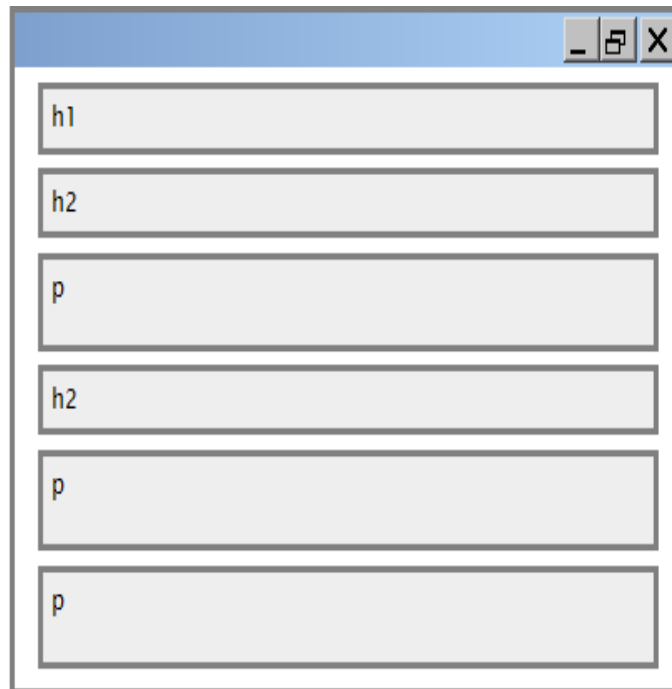
- $\text{width} = \text{content width} + \text{L/R padding} + \text{L/R border} + \text{L/R margin}$
- $\text{height} = \text{content height} + \text{T/B padding} + \text{T/B border} + \text{T/B margin}$
- IE6 doesn't do this right



CSC443: Web Programming

# Document Flow – block elements

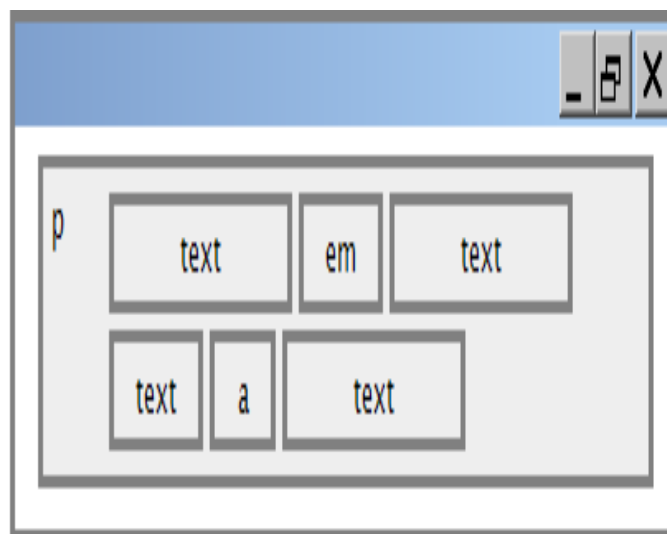
19



CSC443: Web Programming

# Document flow - inline elements

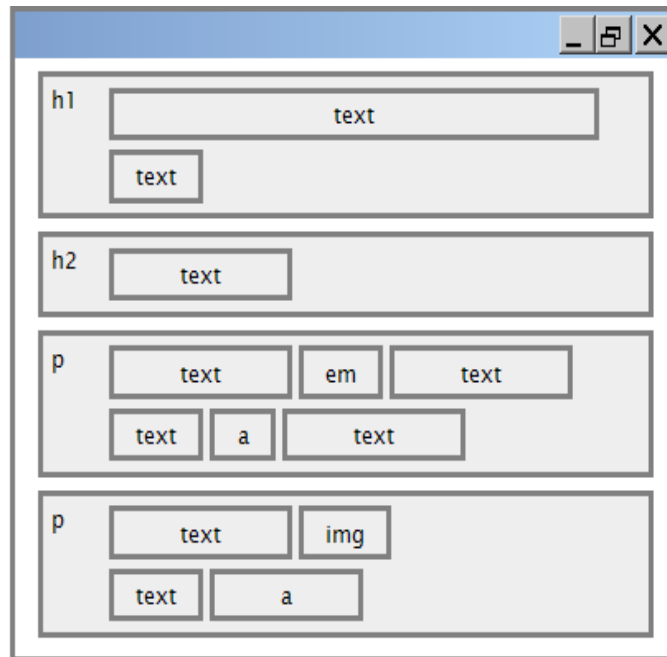
20



CSC443: Web Programming

# Document flow - a larger example

21



CSC443: Web Programming

## CSS properties for borders

22

```
h2 { border: 5px solid red; }
```

CSS

**This is a heading.**

output

property	description
border	thickness/style/size of border on all 4 sides

- **Thickness:** `px`, `pt`, `em`, or `thin`, `medium`, `thick`
- **Style:** `none`, `hidden`, `dotted`, `dashed`, `double`, `groove`, `inset`, `outset`, `ridge`, `solid`

CSC443: Web Programming

color

# More border properties

23

property	description
border-color, border-width, border-style	specific properties of border on all 4 sides
border-bottom, border-left, border-right, border-top	all properties of border on a particular side
border-bottom-color, border-bottom-style, border-bottom-width, border-left-color, border-left-style, border-left-width, border-right-color, border-right-style, border-right-width, border-top-color, border-top-style, border-top-width	properties of border on a particular side
<a href="http://www.w3schools.com/css/css_reference.asp#border">Complete list of border properties</a> <small>CSC443: Web Programming</small> <a href="http://www.w3schools.com/css/css_reference.asp#border">http://www.w3schools.com/css/css_reference.asp#border</a>	

## Another border example

24

```
h2 {  
border-left: thick dotted #CC0088;  
border-bottom-color: rgb(0, 128, 128);  
border-bottom-style: double;  
}
```

CSS

**This is a heading.**

output

- each side's border properties can be set individually
- if you omit some properties, they receive default

# CSS properties for padding

25

property	description
padding	padding on all 4 sides
padding-bottom	padding on bottom side only
padding-left	padding on left side only
padding-right	padding on right side only
padding-top	padding on top side only
<a href="http://www.w3schools.com/css/css_reference.asp#padding">Complete list of padding properties</a> <a href="http://www.w3schools.com/css/css_reference.asp#padding">http://www.w3schools.com/css/css_reference.asp#padding</a>	

CSC443: Web Programming

## Padding example 1

26

```
p { padding: 20px; border: 3px solid black; }  
h2 { padding: 0px; background-color: yellow; }
```

CSS

This is a first paragraph.

This is a second paragraph.

**This is a heading**

output

CSC443: Web Programming

# Padding example 2

27

```
p {  
padding-left: 200px; padding-top: 30px;  
background-color: fuchsia;  
}
```

CSS

This is a first paragraph

This is a second paragraph

output

- each side's padding can be set individually
- notice that padding shares the background color of the element

## CSS properties for margins

28

property	description
margin	margin on all 4 sides
margin-bottom	margin on bottom side only
margin-left	margin on left side only
margin-right	margin on right side only
margin-top	margin on top side only
<a href="http://www.w3schools.com/css/css_reference.asp#margin">Complete list of margin properties</a> <a href="http://www.w3schools.com/css/css_reference.asp#margin">http://www.w3schools.com/css/css_reference.asp#margin</a>	

# Margin example 1

29

```
p {  
  margin: 50px;  
  background-color: fuchsia;  
}
```

CSS

This is a first paragraph

This is a second paragraph

output

- notice that margins are always transparent

CSC443: Web Programming

# Margin example 2

30

```
p {  
  margin-left: 8em;  
  background-color: fuchsia;  
}
```

CSS

This is a first paragraph

This is a second paragraph

output

- each side's margin can be set individually

CSC443: Web Programming

# CSS properties for dimensions

31

```
p { width: 350px; background-color: yellow; }  
h2 { width: 50%; background-color: aqua; }
```

CSS

This paragraph uses the first style above

An h2 heading

output

property	description
width, height	how wide or tall to make this element (block elements only)
max-width, max-height, min-width, min-height	max/min size of this element in given dimension

## Centering a block element: auto margins

32

```
p {  
margin-left: auto;  
margin-right: auto;  
width: 750px;  
}
```

CSS

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

output

- ❑ works best if `width` is set (otherwise, may occupy entire width of page)
- ❑ to center inline elements within a block element, use `text-align: center;`