

# Developing Web Content: CSS Layout and PmWiki Skins

*Dr. Michele Weigle*  
Department of Computer Science  
Old Dominion University  
*mweigle@cs.odu.edu*

<http://www.cs.odu.edu/~mweigle/CS312-F08/>

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## CSS Layout

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- ◆ Now that we've used CSS to style text, we might want to create some more sophisticated pages
  - » content, navigation bar on left, header on top, footer on bottom

We'll divide the page into sections and format each section.

ODU CSS Demo Page for CS 312

- CS 312
  - schedule
  - useful links
- HTML Code Tutorial
- Google Analytics
- In this document...
  - Basic HTML
  - Tables
  - Image Map
  - Forms/CGI

### HTML Examples

Examples from Basic HTML Lecture

- firstPage.html - very simple HTML example
- formatting-example.html - simple formatting example including headings, line breaks, and paragraphs
- links-example.html - examples of including absolute and relative links
- lists-example.html - examples of creating unordered, ordered, and definition lists
- images-example.html - examples of including images on webpages
- font-color-example.html - examples of changing the font and color of text

Examples from Tables and Frames Lecture

- table-example.html - tables with borders, headings, and blank cells
- table-fancy-example.html - tables with colspan, rowspan, color, widths, and nested tables
- frame-example.html - simple frames
- frame-nested-example.html - nested frames
- frame-nested-ex2.html - same nested frames, but with fewer files needed

Example from Image Map Lecture

- imagemap-example.html - demonstrates the use/construction of an image map

Examples from Forms/CGI Lecture

- form-example.html - demonstrates the use/construction of forms
- plainText.cgi - simple Perl script
- finding-coord-example.html - using CGI scripts to determine image map coordinates (uses mapCoord.cgi)
- mapCoord.cgi - Perl script used by finding-coord-example.html to print out map coordinates (actually just prints out input query)
- php-example.html - simple PHP example

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## A Bit More HTML/CSS Syntax

### ◆ HTML

#### » div

- ❖ division, block-level element that groups together a chunk of HTML

```
<div id="content">  
  This is my content.  
</div>
```

### ◆ CSS

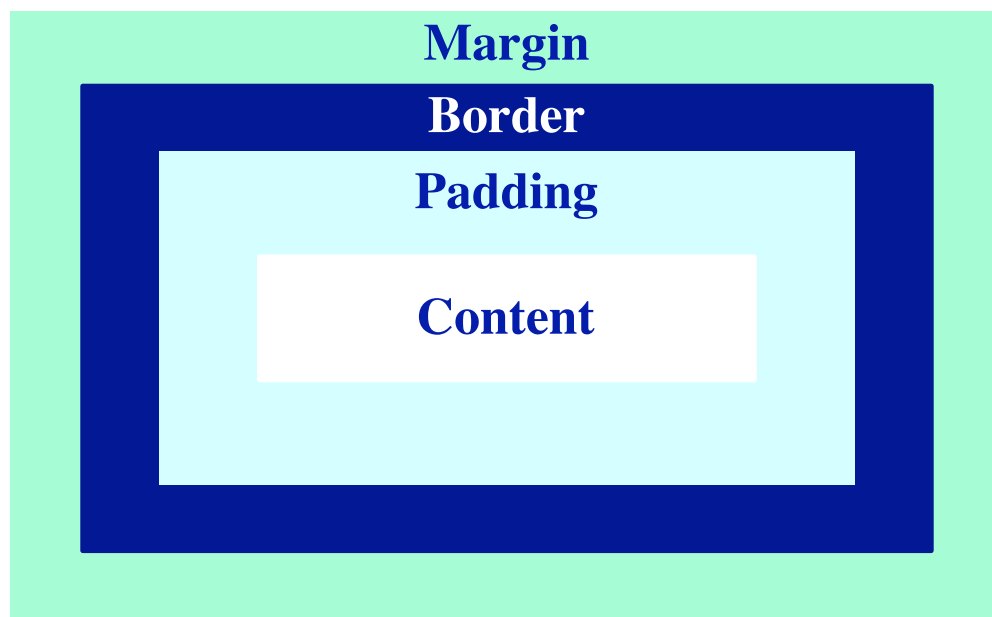
#### » formatting id selectors (such as id="content") in previous example

```
#content {color: blue;}  
colors just the text inside the <div id="content"> tags blue
```

Lecture material based on *HTML Dog*, <http://www.htmldog.com>

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## Let's Remember the Box Model



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# Positioning

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## ◆ Static

- » follows the normal flow of the page (immediately following and preceding other static elements)
- » default

<http://www.htmldog.com/examples/positioning1.html>

## ◆ Relative

- » box is moved to a position relative to its initial static position
- » leaves an empty space where it once was
  - ❖ next box is positioned based on the item's original position

<http://www.htmldog.com/examples/positioning2.html>

```
(position: relative; top: 2em; left: 2em;)
```

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# Positioning

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## ◆ Absolute

- » box is moved offset from the position of its containing block, typically the page itself
- » does not leave a blank space
  - ❖ next box is placed based on the item's original starting position

<http://www.htmldog.com/examples/positioning3.html>

```
(position: absolute; top: 2em; left: 2em;)
```

## ◆ Fixed

- » similar to absolute, but items are fixed to the viewport
  - ❖ will not scroll when rest of the content does

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## Floating

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- ◆ Float can be used to push boxes around
- ◆ Direction is relative to the box's container (often the page)
- ◆ Surrounding content flows around the floated box rather than underneath it
- ◆ Examples:  
<http://www.htmldog.com/examples/float1.html>  
<http://www.htmldog.com/examples/float2.html>

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## Floating

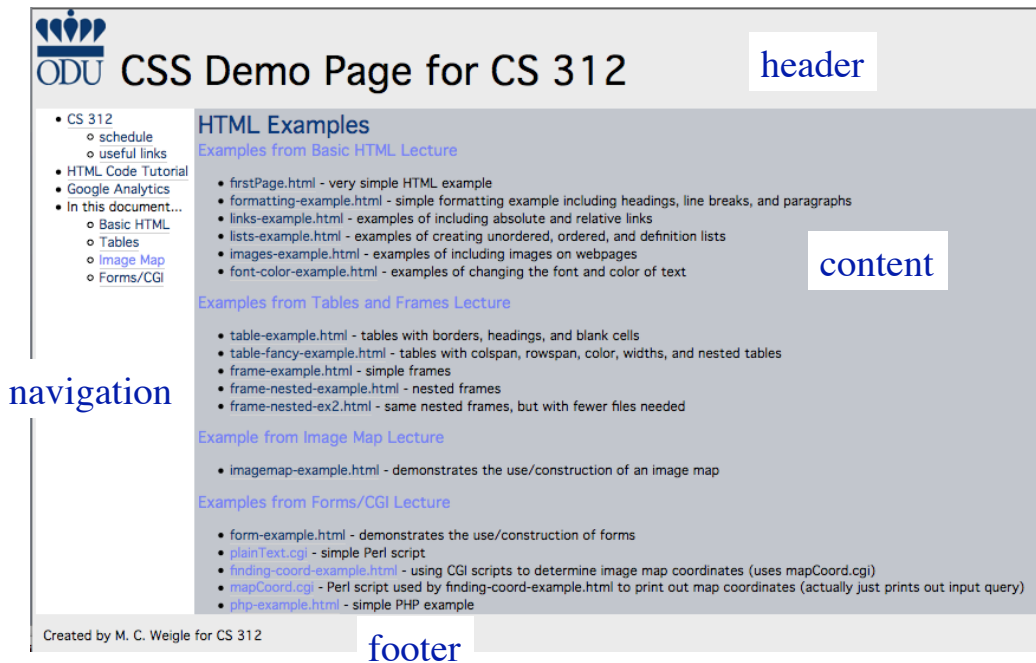
---

- ◆ To have a following element appear below a floating box, use `clear`
- ◆ `clear: left`
  - » clears left floating boxes
- ◆ `clear: right`
  - » clears right floating boxes
- ◆ `clear: both`
  - » clears both left and right floating boxes

<http://www.htmldog.com/examples/float3.html>

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# Building a Layout



navigation

header

content

footer

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# Building a CSS Layout

- ◆ Want to use static positioning
  - » means that order in which sections are defined in the HTML file matters

» to ensure no floating boxes:

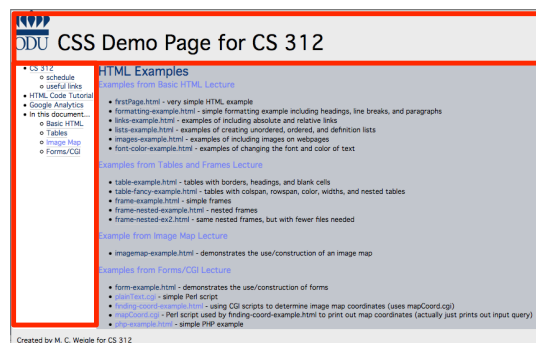
```
* {float: none}
```

- ◆ First, define the header:

```
#header {  
    background-color: #eaeaea;  
    font-size: 3em;  
}
```

- ◆ Then, the navigation bar:

```
#navigation {  
    position: absolute;  
    width: 200px;  
}
```



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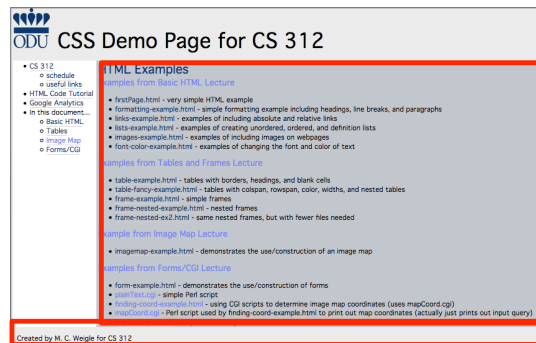
# Building a CSS Layout

## ◆ Next, the content:

```
#content {  
    background-color: #B8BDC4;  
    border-left: 200px #fff solid;  
    padding-left: 5px;  
}
```

## ◆ Finally, the footer:

```
#footer {  
    padding-left: 10px;  
}
```



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# HTML for the Layout

## ◆ Header

```
<div id="header">  
      
    CSS Demo Page for CS 312  
</div>
```

## ◆ Navigation

```
<div id="navigation">  
    <ul> ... </ul> </div>
```

## ◆ Content

```
<div id="content"> ...  
</div>
```

## ◆ Footer

```
<div id="footer">Created by M. C. Weigle for CS  
312</div>
```

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# Creating Skins in PmWiki

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- ◆ Skin

- » changes the look and feel of PmWiki pages

- ◆ Elements

- » **template file**

- ❖ HTML file

- ❖ .tmpl extension

- ❖ skeleton for the skin -- contains special markers that tell PmWiki where to insert the page's contents.

- » **CSS stylesheet**

- ❖ controls the skin's appearance

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# PmWiki Template File

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- ◆ Contains variable substitutions (indicated by \$)

- ◆ Contains special directives embedded in HTML comments `<!-- -->`

- ◆ When PmWiki displays a page, it replaces the directives and variable substitutions with the values appropriate to the current page.

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## Required Template Directives

- ◆ `<!--PageText-->`
  - » belongs to the `<body>` section of the HTML document
  - » tells PmWiki where the main content of each wiki page should be placed
- ◆ `<!--HTMLHeader-->`
  - » goes somewhere in the `<head>` section of the HTML document.
- ◆ `<!--HTMLFooter-->`
  - » goes before the final `</body>` tag
  - » used by some recipes to insert things at the end of the HTML document.

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## Optional Template Directives

- ◆ `<!--wiki:Main.SomePage-->`
  - » outputs the contents of `Main.SomePage`
- ◆ `<!--markup: ... -->`
  - » processes any text that follows the colon as wiki markup and displays that in the output

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## Useful Template Variables

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- |   |   |
|---|---|
| ◆ \$PageUrl                                   | ◆ \$Group                                   |
| » the URL of the current page                 | » the name of the current group (ex: Main)  |
| ◆ \$ScriptUrl                                 | ◆ \$FullName                                |
| » the base URL to the pmwiki.php script       | » the page's full name (e.g., "Main.Proj3") |
| ◆ \$Title                                     | ◆ \$LastModified                            |
| » the page's title (ex: "Proj3")              | » the page's last modification time         |
| ◆ \$Titlespaced                               | ◆ \$SkinDirUrl                              |
| » the page's title with spaces (ex: "Proj 3") | » the URL of the skin's folder              |

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## Template Page Sections

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- ◆ Used to define certain sections of the page
  - » can be turned off with page directives (in the PmWiki page itself)

<!--PageHeaderFmt-->	(:noheader:)
<!--PageFooterFmt-->	(:nofooter:)
<!--PageTitleFmt-->	(:notitle:)
<!--PageLeftFmt-->	(:noleft:)
<!--PageRightFmt-->	(:noright:)
<!--PageActionFmt-->	(:noaction:)

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# Making a New Skin

- ◆ Make a copy of the folder `~/public_html/pmwiki/pub/skins/pmwiki/` and name it whatever your new skin should be named
  - » should be in `~/public_html/pmwiki/pub/skins/`
  - » also do `chmod 755` on the new directory
- ◆ In your `~/public_html/pmwiki/local/config.php` file, set `$Skin` to be the name of your new skin.
- ◆ Modify the template and CSS files to suit you.
- ◆ Test your new skin.

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# Example Skin

The screenshot shows a PMWiki page for Michele C. Weigle. The page layout includes a header with a profile picture and contact information, a sidebar with navigation links, and a main content area. Various skins are highlighted with labels:

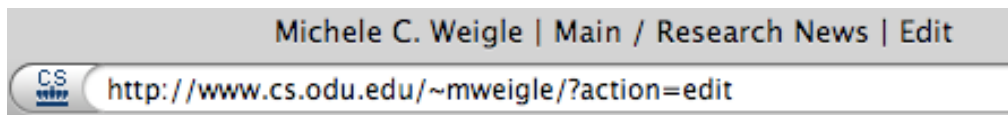
- PageHeaderFmt**: Located in the top right header area.
- PageTitleFmt**: Located in the main content area, above the "Research News" section.
- PageLeftFmt**: Located in the sidebar area, next to the "Home" link.
- PageText**: Located in the main content area, below the "Current Funding" section.
- PageFooterFmt**: Located in the footer area, below the "Old Dominion University" logo.

The page content includes sections for "Research News", "Papers Recently Accepted", "Current Funding", and "Teaching". The footer contains copyright information and a link to the "Edit" page.

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## Example Skin – mweigle.tmpl

```
<head>
  <title>$WikiTitle | {$Group} / {$Title} $ActionTitle</title>
  <meta http-equiv='Content-Style-Type' content='text/css' />
  <link rel='stylesheet' href='$SkinDirUrl/mweigle.css' type='text/css' />
  <!--HTMLHeader-->
</head>
```

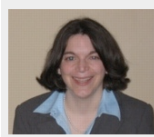


```
In local/config.php:
$Skin = 'mweigle';
$WikiTitle = 'Michele C. Weigle';
```

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## Example Skin – mweigle.tmpl

```
<body>
<!--PageHeaderFmt-->
<div id='wikihead'>
<table id='myhead' cellpadding=10>
<tr>
<td></td>
<td><h1 style="font-size:2.5em; margin:0em"&>Michele C. Weigle</h1>
<br>Assistant Professor
<br><a href="http://www.cs.odu.edu">Department of Computer Science</a>
<br><a href="http://sci.odu.edu">College of Sciences</a>
<br><a href="http://www.odu.edu">Old Dominion University</a>
<br>Norfolk, VA 23529</td>
<td>
<br>mweigle@cs.odu.edu
<br>3214 E&CS Building
<br>Phone: (757) 683-6001 ext. 5050
<br>Fax: (757) 683-4900 </td>
</tr>
</table>
```



**Michele C. Weigle**

Assistant Professor  
Department of Computer Science  
College of Sciences  
Old Dominion University  
Norfolk, VA 23529

  
mweigle at cs.odu.edu  
3214 E&CS Building  
Phone: (757) 683-6001 ext. 5050  
Fax: (757) 683-4900

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## Example Skin – mweigle.tmpl

Edit - [Source](#) - [Logout](#) - [History](#) - [Recent Changes](#) - [Print](#)

```
<!--markup:%right% (:if expr auth admin || auth attr || auth edit :)
[[[-Edit-] -> {$Name}?action=edit]] –
[[[-Source-] -> {$Name}?action=source]] –
[[[-Logout-] -> {$Name}?action=logout]] –
[[[-History-] -> {$Name}?action=diff]] –
[[[-Recent Changes-] -> {$Group}/RecentChanges]] –
[[[-Print-] -> {$Name}?action=print]] (:ifend:) -->

</div>
```

```
<!--/PageHeaderFmt-->
```

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## Example Skin – mweigle.tmpl

```
<table id='wikimid' width='95%' cellpadding='0' cellspacing='0'>
<tr>
<!--PageLeftFmt-->
  <td id='wikileft' valign='top'>
    <!--wiki:{$Group}.SideBar {$SiteGroup}.SideBar--></td>
<!--/PageLeftFmt-->
  <td id='wikibody' valign='top'>
    <!--PageTitleFmt-->
      <div id='wikititle'>
        <h1 class='pagetitle'>{$Titlespaced}</h1>
      </div>
    <!--PageText-->
      </td>
</tr></table>
```

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## Example Skin – mweigle.tmpl

<!--PageFooterFmt-->

<div id='footer'>

<hr>

<table>

<tr><td valign="top">



</td>

<td>

<div id='wikifoot'>

This page was last modified on {\$LastModified}

<br>Copyright &#169; 2008, Old Dominion University. All rights reserved. </div>

Old Dominion  
UNIVERSITY

This page was last modified on August 30, 2008, at 07:41 PM  
Copyright © 2008, Old Dominion University. All rights reserved.  
Print - [Search](#) - [Logout](#) | [History](#) - [Recent Changes](#) - [Edit](#)

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## Example Skin – mweigle.tmpl

<div id='actionfoot'>

<!--markup: [[Print -> {\$Name}?action=print]] -

[[Search -> {\$SiteGroup}/Search]] -

(:if expr !auth admin && !auth attr && !auth edit :)

[[Admin -> {\$Name}?action=login]] (:ifend:)

(:if expr auth admin || auth attr || auth edit :)

[[Logout -> {\$Name}?action=logout]] |

[[History -> {\$Name}?action=diff]] -

[[Recent Changes -> {\$Group}/RecentChanges]] -

[[Edit -> {\$Name}?action=edit]] (:ifend:)--> </div>

</td></tr>

</table>

</div>

<!--HTMLFooter-->

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# Example Skin

The screenshot shows a web page for Michele C. Weigle, an Assistant Professor at Old Dominion University. The page has a sidebar on the left with links for Home, Research, Teaching, Schedule/Travel, Personal, and Notes. The main content area is titled "Research News" and contains a list of papers and funding. The page is annotated with several labels: "PageHeaderFmt" points to the header area, "PageTitleFmt" points to the "Research News" title, "PageLeftFmt" points to the sidebar, "PageText" points to the main content area, and "PageFooterFmt" points to the footer area. The footer includes the Old Dominion University logo and a copyright notice.

**Michele C. Weigle**  
Assistant Professor  
Department of Computer Science  
College of Sciences  
Old Dominion University  
Norfolk, VA 23529

**Old Dominion University**  
mweigle at cs.odu.edu  
3214 E&CS Building  
Phone: (757) 683-6001 ext. 5050  
Fax: (757) 683-4900

**PageHeaderFmt**

**PageTitleFmt**

**PageLeftFmt**

**PageText**

**PageFooterFmt**

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## Example Skin – mweigle.css

- ◆ Modified pmwiki.css
- ◆ Changed colors, fonts, and spacing (padding, margin, borders) until I had a design I liked

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