



Basic Design Principles



Assignment 2:

Your student web site



1. Banner
2. Your name
3. Your account number
4. A link to another web page, preferably one useful to you in this class
5. A photo, *preferably of you*
6. Upload this page to php.missioncollege.edu
 - Using your FTP software, which should already be installed on your computer
 - Using your account number

+ Dreamweaver?



■ Pros

- Helps you with CSS styles.
- Easy to synchronize your home setup with the Mission College server.
- Has a good text editor built in.

■ Cons

- Can be a crutch that prevents you learning proper HTML coding.
- People who use DW extensively tend to not do very well in the class.
- Tendency to use the design tools instead of the HTML editor.

■ Summary

- Useful for synchronizing your web site.
- But don't use it for actually creating your web site.

+ Frameworks?

- Frameworks such as Bootstrap, Foundation, Skeleton, and jQuery Mobile may make your life easier in general, but they will make your way difficult in this class.
- These frameworks don't always interact well with PHP.
- In my experience, students who try to use frameworks tend to get stuck around the third week and they never recover. They get bogged down trying to make their framework work with PHP, and they never get around to just making the PHP work in a more vanilla setting.



Three components of this class



- **Web development (about one week)**
 - Proper standard HTML (HTML5)
 - A little CSS
- **PHP (about 12 weeks)**
 - Form processing
 - Using Templates
- **MySQL (about 2–3 weeks)**
 - Storing data and Retrieving data
 - Command line for setting up your database
 - Using PHP to view and update your database

+ The Goals of Design



- To **communicate** information effectively and efficiently.
 - Textbook
 - Infographics
- To **persuade** an audience to buy a product, use a service, believe a proposition, or feel a particular way.
 - Advertising
 - Politics
 - Games
- To **solve** a problem.
 - Music streaming
 - Cloud services

+ Accomplishing these goals



- **Typography** to make running text legible and header text scannable.
- **Color** to bring features forward or back.
 - Warm vs. cool colors
 - Light vs. dark colors
 - Saturated vs. gray colors
- **Color** to effect physiological responses in the reader.
 - Warm colors tend to raise the heart and respiration rates.
 - Cool colors tend to lower the heart and respiration rates.
- **Line** to lead the eye around the page.
- **Images** to make the information more understandable.

+ Images



- Use images of the appropriate size (in both pixels and bytes).
- Use an image format that is suitable for the content you're displaying.
- Use images that load quickly.
- When resizing images, preserve the aspect ratio.

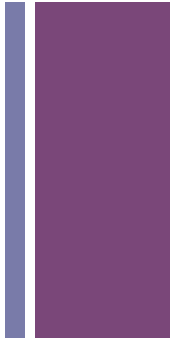
+ Image Size



- Use images that have appropriate resolution for the page and placement you're giving them.
 - If your photo is too small, it will appear fuzzy.
 - If the photo is supposed to fit in a space 400x600, don't use a photo that is only 200x300.
 - If your photo is too large, it will take a long time to load.
 - If the photo is supposed to fit in a space 400x600, don't use a photo that is 3200x4800. (Some cameras will take a photo this large.)
 - However, if the photo is supposed to fit in a space 400x600, you may want to use a photo that is 1200x1800, because it will look nicer on a retina or other high-density screen, which are now widely available in 1.5x, 2x, 2.5x, and 3x resolutions.



Image formats and file types



- Different image formats offer different tradeoffs between file size and appearance.
 - **JPEG** is compressed, so you get a smaller file size, but can be fuzzy if you use the lower quality settings.
 - **PNG** is not compressed, but it is better for flat images like logos. It may look fuzzy for real photographs.
 - **PNG-24** has better quality than JPEG but also slightly larger files.
 - **GIF** is a good format for flat images, just like PNG, but GIF is copyrighted and many web hosts do not even allow you to use it for fear of incurring copyright charges. GIF support transparency and animation.
 - **BMP** is **not** a cross-platform format and you should **not** use it.
 - **SVG** is a powerful vector format, makes highly scalable images, and can either be written in code or generated from Adobe Illustrator. It is best for logos and icons.

+ Image formats and content



Use these image formats for these kinds of specific content:

- **JPEG** for photographs, images that use fine gradients, images that use more than 256 colors.
- **PNG** for logos, icons, buttons that don't use fine gradients, and any other artwork that has flat colors or fewer than 256 colors.
- **GIF** for logos or icons that must include transparency or animation.
- **SVG** for artwork that must be widely scalable in size.

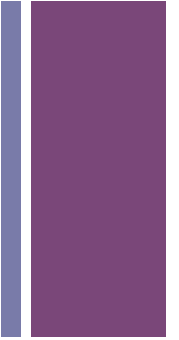
+ Image loading time



- You can shrink your images and change formats using Photoshop, GIMP, and many other image processing programs.
- If your web page takes a long time to load, I will ask you to shrink the image files, substitute a different image, or change your whole web page.
- Your page should obviously start being loading within one second, or users will navigate elsewhere.
- The current rule seems to be: one image 150K max, all images on the whole web page 500K max.

+ Preserving aspect ratio

- Don't stretch your images. When you resize, maintain the same *aspect ratio*.
- Don't put an image that is 400x600 into a space that is only 300x600.
- The result can look fat or skinny. Like viewing normal TV in wide screen mode, or a wide screen movie in normal TV mode.



+ Preserving aspect ratio

