

**CS 2800 – Web Development I**  
**Fall 2015**  
**Semester Project**

Part 1 - 20% of project grade. Due Saturday, September 26, 11:59 pm

Part 2 – 25% of project grade. Due Saturday, October 24, 11:59 pm

Part 3 – 25% of project grade. Due Saturday, November 21, 11:59 pm

Part 4 – 30% of project grade. Due Saturday, December 12, 11:59 pm

All parts of the project will be accepted up to 24 hours late with a 10% grading penalty. No work accepted after the 24-hour grace period has passed.

**General requirements:**

For your semester project, you will design a web site consisting of at least 5 pages. Your site design must follow accepted usability guidelines (see chapter 18 in the Murach textbook). You must also follow the requirements for each part, which will be provided as the semester progresses. Be sure to validate all pages for HTML5 before submitting them. Errors must be corrected on subsequent submissions; for instance, if part 2 had implementation errors that were mentioned in the grading comments, you must fix those errors in your part 3 submission.

The purpose of this project is to assess your knowledge of the course content. Therefore, in all parts of this project, **you must use ONLY those features that are part of this course** (html and css for parts 2-3; javaScript and jQuery for part 4). Using more advanced web programming features will result in a deduction of points.

**Part 1 Requirements:**

1. Describe your web site – what is its purpose, who is the intended audience, what information does it need to convey? Also include a list of each page your site will need, with a short paragraph for each page describing its purpose and content. Keep in mind that you will need to incorporate images, lists, tables, forms, audio, video, and the ability to print within your site, so create a site that will be able to use these elements. Upload your description, named *yourLastName\_description.docx*, to the Part 1 dropbox on Pilot.
2. Create a site map of your project, using the hierarchy chart tool in Word (search the web for instructions if necessary). Upload your site map, named *yourLastName\_site\_map.docx*, to the Part 1 dropbox on Pilot.
3. Create two wire frames for your home page. One wire frame will be for the mobile design, one wire frame will be for the desktop design. Keep design guidelines in mind when designing your pages—in the mobile design, vertical scrolling is fine, but the user should not need to scroll horizontally. In the desktop version, keep important information above the fold. Your home page must include the following:
  - A header with a title (business name or similar) and logo for your site
  - A horizontal navigation bar that allows the user to move to the other pages in the site
  - A main content area that includes images and text
  - A footer (content of your choosing)
  - Contact information, such as email and links to social media, should be incorporated into either the header or footer

Upload your wire frame documents, named *yourLastName\_wireframe\_mobile.docx* and *yourLastName\_wireframe\_desktop.docx*, to the Part 1 dropbox on Pilot.

## Part 2 Requirements:

Implement these parts of the web site you described in Part 1:

- Create a folder hierarchy to organize your site. At a minimum, you should have a main folder; within that main folder you should have a separate folder for images and a separate folder for css files. Name your main folder *yourLastName\_website*. If you prefer, you may change the *website* portion of the main folder name to something more descriptive of your site.
- Write the html for your home page, named *index.html*. All content, whether it is for mobile or desktop, must be included. No styling, with the exception of setting widths for images, may be done within this page.
- Write "skeleton" html for all other pages in your site. Use the same header and navigation bar and the same footer as on the home page. The body of these pages may be empty at this point (or use lorem ipsum text if you prefer to fill something in). Be sure to link back to the home page from each of these pages through the logo in the header. Be sure all links in the navigation bar work properly, so that the user can navigate to any page from any page.
- Your head section should include a title, favicon, and meta data with a description and keywords.
- Include *normalize.css* in your project and link to it from the header of each page in your site.
- Write the CSS to style both the mobile and desktop versions of your home page. Style the mobile version first, setting colors, fonts, margins, etc., to achieve an attractive design. Then use media queries to style the desktop version. If you prefer, you may style the desktop version first and use media queries to style the mobile version; in either case, the bulk of the styling should be done in the one completed first, and the other style sheet should do all necessary styling within media queries only.
- Use separate files for various parts of your CSS. This is not something you would need to do in a "real" web site, but for organization and ease of grading, you must use these separate CSS files (in addition to *normalize*):
  - a file to style the header (title, logo, navigation bar) that will appear on all pages
  - A file to style the home page (should be styled for mobile)
  - A file for responsive styling (using media queries)
  - A separate file(s) to style the content that is unique to each page in your site.
- Be sure to validate for both HTML5 and CSS3.

Turn your site in in two forms:

- Zip your web site folder and upload it to the Part 2 dropbox on Pilot.
- Publish your web site to the CS2800 server (transfer the files to your account on the server using an ftp client).

### Part 3 Requirements:

- Be sure that all pages for your project meets the following requirements:
  - Use of the same navigation bar on all pages; highlight the item for the current page in some way. The logo on each page (except the home page) should be a link to the home page.
  - Use the same favicon for all pages.
  - Content – information is displayed in a logical manner, allowing the user to easily find the information; where applicable, copy is written in an inverted-pyramid style.
  - Styling - all pages are styled to achieve a consistent look. Follow usability and accessibility guidelines discussed at the beginning of this course.
  - While responsive design is not required for this part, you must use a fluid layout so that the page scales when the browser window is resized (use relative units and scalable images). Links to external sites, including audio and video, should open in a new window.
  - **Your content and design must be original.**
- You must incorporate the following items/features into the sub-pages of your site (NOT the home page). You may find it easiest to dedicate a page to each item, but that is not required.
  - Images -- implement ALL of the following:
    - Thumbnail image (image that, when clicked, displays the larger version)
    - Image rollover (replace one image with another on mouse hover)
    - Image map (using hotspots on an image to display specific info about that area)
  - Tables:
    - Present tabular data, consisting of at least 3 rows and 3 columns, using the table feature. Note that this must be tabular data; you may NOT use the table feature for layout purposes only. You may create "contrived" data if your site does not lend itself to tabular data. Your table should include a caption and column headers to aid accessibility.
    - Apply at least one css styling rule for the table; for example, change the borders, set the alignment of cell content, and/or add shading to certain rows.
  - Forms:
    - Create a form with at least two fieldsets for user input.
    - Input fields must include at least three of the following: a text box, a radio button, a check box, a text area, a datalist, or a date and time control. Be sure to set a logical tab order for the input fields.
    - Include a submit button and a clear button.
      - When the submit button is clicked, at least one data item should be validated (i.e., password meets requirements; email contains an @) and an appropriate message displayed.
      - When the clear button is clicked, the user input should be cleared from the form.
  - Audio and Video
    - Include at least one embedded audio and one embedded video element in your site
    - Include a link to either an audio or video url that opens in a new page

**Part 4 Requirements:**

- See separate document