**Web Development – Web Project (Senior Final Exam)**

**250 Points**

Goal: You will be building a web project that utilizes several of the skill sets that you’ve acquired and developed over the course of the semester. For seniors, this will be the last assignment you will work on in the class. You will be working on it over the course of several weeks.

**Step # 1 – Selecting A Topic**

I’m giving you full discretion as to the topic of your Web project this time around. I would certainly suggest looking at the all criteria for the project before locking in a topic though, as some ideas lend themselves more easily to fulfilling these requirements. Here are 16 categories in which you might choose to build your web project:

Job/Career New Technologies Sports Music

A favorite hobby Family Tree Actor Book/Series

TV Show Historical Event Country Planet/Solar System

Clothing Disease/Medical Condition Video Game/Console Animal

\*Note: You may NOT choose the same topic as anyone else in the class. First come, first served.

Once you know the topic you want to build you web project on, lock it in with Mr. Dixon and he will announce to the class that that topic is no longer available.

**Step # 2 – Project Web Page Requirements**

Your web site is going to be built with a minimum of 12 web pages. The more pages you build the more latitude I will give when grading your web project. If you stick with the minimum of 12 web pages, I expect all 12 to be of the utmost quality. Realize that the content for your 12 web pages is not defined by me. Since there is a variety of topics, there will also be great disparity in the individual pages you will build. What I do define are the elements that must be used within your web project.

**Step # 3 – Project Required Elements**

Your project has numerous required elements. Use the following as a checklist. Failure to include any of these elements will result in a deduction to your overall score. Understand that you will bolster your overall score by including more than minimum number of these elements into your project.

**HTML - 50%**

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| **Required Element** | **Quantity** | **Description** | **Completed?** |
| HTML Tables | 2 | Two tables must be present throughout your project. Your tables should consist collectively of a minimum *40* cells. You are expected to customize the table appearances to maximize their effect. Such customizations would include the borders, border color, alignment, fill color, the cell padding and cell spacing. You are also required to have at least one instance where table cells are merged together. (column spanning and/or row spanning.) |  |
| Navigation Bar | 1 | Your project should have a Navigation Bar that lets the viewer easily jump around the different parts of your web site. You don’t have to have every web page represented in the Navigation Bar, but you do want the different main categories displayed. Child pages can be accessed from the pages reached from the navigation bar. The navigation bar will be visible on all pages and managed by CSS. |  |
| External Hyperlinks | 3 | Your project will have a minimum of three hyperlinks to external sites. These external links should serve a purpose to your site, not merely a hyperlink for the sake of fulfilling a project requirement.   * 1 external hyperlink must be placed on a button * 1 external hyperlink must be placed on an image * External hyperlinks open in their own tab * Hyperlinks will also be managed by CSS.\* |  |
| Internal Hyperlinks | 2 | Not counting your navigation bar, you should have at least 2 hyperlinks within your pages that will take you to another page of your website. |  |
| Font Choice | n/a | You should make certain that you choose appropriate and consistent font, font size, color and style throughout your project. If you have less content on a given page, you should increase the font size to fill more of it up. Font manipulation should be controlled through CSS. |  |
| Video | 1 | At least one video should be used on your web site. Use this resource to help you: <http://www.w3schools.com/html/html5_video.asp> |  |
| Audio | 1 | On one page, insert a sound file of an appropriate song to enhance the experience of the viewer. Use this resource to help you: <http://www.w3schools.com/html/html5_audio.asp> |  |
| Ordered List | 1 | Find an appropriate use for a numbered (ordered) list  At least one list in your web site must be nested. (Can be either the ordered or unordered list) |  |
| Unordered List | 1 | Find an appropriate use for a bulleted (unordered) list |  |
| Special Characters | 2 | Find a way to work in at least 2 special characters into your project. A special character is one that cannot be found on your keyboard, such as ☺ or ☯. These are not images, they are characters. (Alt-key) Don’t forget to change the pages encoding to Unicode when you do this. |  |
| Color | n/a | It is expected that you will use numerous and appropriate colors to keep the interest of the visitor. Color can be changed to the background of the page or table, font or other parts of your pages to accomplish this goal. |  |
| DIV tags |  | You should utilize DIV tags to create regions on your web page to contain different parts. If well planned, a combination of CSS and DIV tags can make the formatting and layout of your web site very easy, consistent and professional looking. |  |
| Superscript/ Subscript | 1 each | At least 1 time each, you should show you can use these features. |  |
| Variety of tags | n/a | There are many additional tags that we have explored. Don’t be handcuffed by the above list. |  |
| Tag attributes | n/a | Remember that each tag has several attributes that you can alter or change the appearance of the tag. While many of these will be handled by your CSS file, you will certainly utilize them to override the CSS selectors in several cases. |  |
| Events |  | I would like to have at least 5 instances where you take advantage of HTML events, such as onclick, onmousehover, onscroll, etc.. <http://www.w3schools.com/tags/ref_eventattributes.asp> |  |

**CSS – 15%**

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| **HTML Tag** | **Description** | **Completed?** |
| <table> | Set up the default setting for any table in your CSS document. |  |
| <a href> | Your hyperlinks should be consistent throughout your website. Feel free to remove underlining, change the hyperlink color (link and visited), and even manipulate the color on mouseover here. |  |
| Color | It is expected that you will use numerous and appropriate colors to keep the interest of the visitor. Color can be changed to the background of the page or table, font or other parts of your pages to accomplish this goal. |  |
| <div class = “xxx”> | Use this selector for multiple sections in your webpage |  |
| <div id=”xxx”> | Use this selector to format one specific section of a webpage |  |
| <body> | Set up the default format for the body tag. |  |
| <img> | Set the default format for your images. |  |
| <ul>, <ol> | Lists can be formatted in your CSS file as well. |  |
| <font> | Set the size, color and font-family for your text via CSS |  |
| Custom selector | Remember that you can create your own selector for use in your HTML documents. |  |
| Other HTML tags | If you have a commonly used html tag, such as <p>, feel free to edit the font, color, etc… of that particular tag via CSS. This makes your designing of your pages quicker and less like to have a typo. |  |

Codeacademy.org has a list of several selectors as well as the code to set the properties of that selector.

**Javascript – 15%**

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| **Required Element** | **Quantity** | **Description** | **Completed?** |
| Javascript Drawing | 2 | You must include at least two Javascript drawings in your website that are in theme with the page they are found. You will submit your graph paper drawing of these with your project at the time of submission. For example, if you were creating a website on soccer, you might include a Javascript drawing of a soccer field on a page where you describe the rules. I’m expecting these to be rather sophicated, not stick people. You should utilize each of the Javascript drawing commands at least once each. Be sure to control your canvas size accordingly so that the drawing fits nicely in the page along with the rest of the page. (nav bar, etc…) |  |
| Javascripts | 2 | Additionally, you will make use of at least two additional javascripts from javascriptkit.com or similar sites that you will embed into your own website. Again, it should be in theme with your site. |  |

**Image Editing – 10%**

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| **Required Element** | **Quantity** | **Description** | **Completed?** |
| Images | 1 per page | Each page should consist of at least 1 image. The days of text only web pages is long gone. |  |
| Edited Images | 5 | Using Fireworks or the Lunapic web site, you must manipulate existing images to suit the needs of your project. Edits include:   * Creating a transparent background to provide a more realistic look to the image * Cropping the image to remove parts of it that are unwanted * Removing/fixing imperfections on the image or background * Fixing Red-eye, acne, wrinkles, weight on an individual * Adding an individual or object to another photo * Skewing, scaling, flipping or rotating the image for design/balance purposes. * Adding animations (Luna pic) to an image |  |

**Part 4 – Web Page Text Content**

There should be NO PLAGIARISM. Any copying and pasting of content from Wikipedia or other source will result in a failing grade. You most certainly can use information from other sites, but simply use that information to assist you in developing your own web page written expression. You don’t need to write the great American novel on each of your web pages. Often times less is more with web content. If an entire paragraph can be summarized into a bulleted point, use an unordered list instead of a long essay to get your point across. If you do find the need to use a quotation from a source, put it in quotations and cite the source within your web page, with a hyperlink to the original source.

**Part 5 – Submission Requirements**

The following are required when you submit your web project:

1. All pages, images, videos, audio files, etc.. used in your project must be saved in a folder called **WebProject** in your home directory.
2. You must submit on graph paper, your custom Javascript drawings.
3. You must build a web page called images.html that shows, in a table, the “before” and “after” images used in your five image edits. This page does not count toward your project minimum requirement of 12. The before and after pictures will be triggered on a rollover effect, similar to what we did when we were working in Fireworks.
4. You must build a web page called aboutme.html that give basic information about you and why you chose the topic you did. This may be a good page for your audio file. (play a favorite song perhaps?) This page is only accessible from the home page (index.html) of your website.
5. A filled-out copy of the project rubric (forthcoming) in which you will have to provide names of pages and the location of the various project requirements.

**Senior Exemption**

This project will count for 250 points in the marking period, as well as the senior final exam. If seniors wish to use an exam exemption, you may cut down the number of pages required to 10.