

**Hillsborough Township School District**

**Hillsborough High School**

**Applied Technology Curriculum**

**Webpage Design**

**August, 2012**

## ELEMENTS OF CURRICULUM

Course Overview  
HS Course Description  
Curriculum Outlined

## Course Overview

In Webpage Design, students will develop the knowledge and skills to build creative and interactive internet websites that exemplify current trends of the industry. Using various software applications and Hypertext Markup Language (HTML), the students will balance their newly acquired technical skills with artistry to create web pages that are conceptually interesting, easily navigable, visually pleasing, and functional. Webpage Design is a semester course with no prerequisites.

Unit	Pacing # of Weeks	Essential Questions	Enduring Understandings	Content	Skills	Assessment	NJCCCS CPI	Common Core Literacy
<b>Basics of Web Design</b>								
<b>Standard Level:</b>								
<b>Semester Elective</b>								
<b>Unit 1</b>	2 to 4 days 18 weeks Embedded, discussed, introduced, integrated, and reviewed throughout all units during the semester.	What does HTML stand for? Define the following acronyms: -URL -WWW -COM -GOV -FTP -IP -BIZ -NET  Why should a business or self-employed contractor require a Web site?  How should planning begin when starting a web page design?  Why are file extensions important to differentiate?	Markup language must be used for browsers to read and render web pages. HTML is made up of elements and attributes which can be easily interpreted by people and machines.	Focus on the customer Working with your clients FYI - information on domains Web design patterns Site development processes Naming conventions Purpose of a website Planning your site	Discuss Hypertext Markup Language Apply text editing program to code a page Create folders, files, and drives for documenting various page designs. Discuss file extensions as applied to editing program	Teacher observation of student Student completing teacher assigned evaluation with rubric Successful Completion of safety test and assignments Teacher questioning of student	9.4.12.O.4 Select and employ appropriate reading and communication strategies to learn and use technical concepts and vocabulary in practice. 9.4.12.O.1.11 Demonstrate understanding of processes and concepts that are key to understanding the design process. 9.4.12.O.1.12 Model technical competence by developing and applying processes and concepts in the design process.	RH.9-12.4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

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Safety / Ergonomics: Classroom, Computer, Tools, Carpal Tunnel	<b>Standard Level:</b> 2 to 4 days	What are the proper and safe operation of the computer and classroom?	Proper treatment of computer hardware is important in the computer lab.	Classroom, workplace and computer safety rules, regulations and emergency situation.	Safety <ul style="list-style-type: none"> <li>• Poster</li> <li>• Documentation</li> <li>• Test</li> <li>• Presentation</li> </ul>	Teacher observation of student	8.2.12.G.1 Analyze the interactions among various technologies and collaborate to create a product or system demonstrating their interactivity.	RH 9-12.4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
	18 weeks Embedded, discussed, introduced, integrated, and reviewed throughout all units during the semester.	Who is responsible for computer operation?  What is the advantage of the computer in Web Page Design?  What to do in an emergency?  What is ergonomics and Carpal Tunnel?  Identify possible computer hazards and unsafe situations.	Carpal Tunnel  Ergonomics  Safety Targets: OSHA Electrical Chemical Fire Tool/Equipment	Student Discussion: Individual and Group (with or without Teacher)  Utilized in class during the semester	Student completing teacher assigned evaluation with rubric  Successful Completion of safety test and assignments  Teacher questioning of student	9.4.12.M.39 Maintain safe and healthful working conditions and environments to ensure employee safety.  8.1.12.F.2 Analyze the limitations of current and emerging technology resources and assess their potential to address educational, career, personal, and social needs.	RH 9-12.1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing conclusions drawn from the text.  RH 9-12.9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.	

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Unit 3	2 to 4 days	<p>What is typography?</p> <p>Where is typography utilized?</p> <p>What elements make up good typography?</p> <p>Define and identify different typographic elements.</p> <p>Define text and different elements of text.</p>	<p>Typography can add design and visual quality to a web design. Changing text styles and fonts can also enhance page typography.</p>	<p>Vocabulary:</p> <ul style="list-style-type: none"> <li>• Typography</li> <li>• Text</li> <li>• Fonts</li> <li>• Styles</li> <li>• Elements</li> <li>• Publications</li> <li>• Utilization</li> </ul> <p>Identification of fonts</p> <p>Parts and Elements of</p> <ul style="list-style-type: none"> <li>• Text</li> <li>• Typography</li> </ul>	<p>Project: Magazine Search</p> <p>Text Worksheet</p> <p>Student Discussion:</p> <p>Individual and Group (with or without Teacher)</p> <p>Utilized in projects during the semester</p>	<p>Teacher observation of student</p> <p>Student completing teacher assigned evaluation with rubric</p> <p>Successful completion of magazine search</p> <p>Teacher questioning of student</p>	<p>9.4.12.O.1.1 Apply active listening skills to obtain and clarify information.</p> <p>1.1.5.D.1 Identify elements of art and principles of design that are evident in everyday life.</p> <p>9.4.12.B.8 Locate, organize, and reference written information from various sources to communicate with others</p> <p>8.2.12.F.1 Determine and use the appropriate application of resources in the design, development, and creation of a technological product or system.</p> <p>8.2.12.F.3 Select and utilize resources that have been modified by digital tools (e.g., CNC equipment, CAD software) in the creation of a technological product or system.</p> <p>8.2.12.G.1 Analyze the interactions among various technologies and collaborate to create a product or system demonstrating their interactivity.</p>	<p>RH.9-12.9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.</p> <p>WHST.9-12.6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.</p> <p>RH.9-12.5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.</p>
	18 weeks							
<p><b>Text Fundamentals: Vocabulary/Typography</b></p> <p>Embedded, discussed, introduced, integrated, and reviewed throughout all units during the semester.</p>								

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Unit 4 Web Page Design Principles	Standard Elective							
	2 to 4 days	Define the following tags: body, head, style, title, table, td, tr, p, h, and bg.  How can you insert a background for text?  How do you create a fixed background image on a web page?  What is CSS? How does CSS differ from HTML?	Designing web pages demands the application of the elements and principles of design.	Design principles Effective Page Layouts  Layout options: -Using tables, layers, frames -Working with forms -Using CSS to add interest and flexibility to a design	Discuss tags and code language to begin a simple web page.  Apply tags and code to add background colors to headers and text.  Create documents for web pages.  Introduction to CSS.	Teacher observation of student  Student completing teacher assigned evaluation with rubric  Successful completion of magazine search  Teacher questioning of student	9.4.12.K.(3).7 Iterate through the design and development process to create a uniform Web-based or digital product.  9.4.12.K.(3).9 Design and employ the use of motion graphics to create a visual Web-based or digital design.  9.4.12.K.(3).10 Demonstrate the effective use of tools, including tools for product development, product management, and production, to complete Web-based or digital communication projects.	RH 9-12.9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.  WHST 9-12.6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

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<b>HTML Fundamentals: Code of Language</b>	<b>Standard Level: Semester Elective</b>							
	8 - 10 weeks 18 weeks Embedded, discussed, introduced, integrated, and reviewed throughout all units during the semester.	Define all of elements that could make up a webpage. What are values, tags and attributes? How can you insert a background for text? Compare and contrast any HTML element? What is HTML? How does HTML differ from other coding methods? How is nesting utilized?	Webpages are derived from text documents compiled of tags and attributes.	Text Formatting Graphics Links Lists Tables Forms Table Structure and Hierarchy Data Tables, Columns and Rows Border Attributes Nesting Other Features  <i>All Associate code, tags, attributes, and values</i>	Projects: Vary as per Teacher and per content area  Worksheets Projects: • Short term • Long term  Student Discussion: Individual and Group (with or without Teacher)  Utilized in projects during the semester	Teacher observation of student  Student completing teacher assigned evaluation with rubric  Successful completion of assignments and projects  Teacher questioning of student	9.4.12.K.(3).7 Iterate through the design and development process to create a uniform Web-based or digital product  9.4.12.K.(3).9 Design and employ the use of motion graphics to create a visual Web-based or digital design.  9.4.12.K.(3).10 Demonstrate the effective use of tools, including tools for product development, product management, and production, to complete Web-based or digital communication projects.	RH 9-12.9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.  WHST 9-12.6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.  WHST 9-12.6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.  RH 9-12.5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.

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Unit 5	3 to 5 days	<p>What are some ways to avoid navigation issues?</p> <p>Why is it important for web sites to be user friendly?</p> <p>How can links change color when hovered over?</p> <p>How can links be given color and font attributes?</p> <p>Why is organization of web page important?</p>	<p>Web sites with large background pictures, uneasy color schemes, and poor navigation with minimum links results in a poor web design.</p>	<p>Principles of effective navigation</p> <p>More than one way to navigate</p> <p>Hierarchal organization</p> <p>Task-based organization</p> <p>Other ways to organize your navigation</p> <p>Making navigation easy</p> <ul style="list-style-type: none"> <li>-Bread crumbs</li> <li>-Links, embedded and external</li> <li>-Error messages</li> <li>-Unified browsing hierarchy</li> <li>-High-visibility buttons</li> </ul> <p>Accessibility issues</p>	<p>Define the following tags:</p> <ul style="list-style-type: none"> <li>-a:link</li> <li>-a: hover</li> <li>-a:active</li> <li>-a:visited</li> </ul> <p>Create links to promote navigation and organization</p> <p>Apply defined tags to documents for external navigation</p>	<p>Teacher observation of student</p> <p>Student completing teacher assigned evaluation with rubric</p> <p>Successful completion of projects and assignments with terminology and content</p> <p>Teacher questioning of student</p>	<p>9.4.12.K.(3).7 Iterate through the design and development process to create a uniform Web-based or digital product.</p> <p>9.4.12.K.(3).9 Design and employ the use of motion graphics to create a visual Web-based or digital design.</p> <p>9.4.12.K.(3).10 Demonstrate the effective use of tools, including tools for product development, product management, and production, to complete Web-based or digital communication projects.</p>	<p>RH 9-12.9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.</p> <p>WHST 9-12.6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.</p>
	18 weeks							
	<p>Embedded, discussed, introduced, integrated, and reviewed throughout all units during the semester.</p>							

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Standard Level: Semester Elective	18 weeks	Why some web sites are slow to download? What are pros and cons to flashing and bright colors?	Colors and images relating to the theme of the web page can enhance quality and design.	Using color on your pages: -Flashing colors -Bright colors  Pros and cons of background colors  Contrast Do's and don'ts of Graphics  Dimension vs. Weight  Wrapping text around a graphic  Using Background graphics  Banners and moving objects	Class discussion on the choice of backgrounds and font colors.  Define Scrolling Marquee.  Apply flashing paragraphs, bright font styles, and graphics on given background.	Teacher observation of student  Student completing teacher assigned evaluation with rubric  Successful completion of projects and assignments with terminology and content  Teacher questioning of student	9.4.12.K.(3).7 Iterate through the design and development process to create a uniform Web-based or digital product.  9.4.12.K.(3).9 Design and employ the use of motion graphics to create a visual Web-based or digital design.  9.4.12.K.(3).10 Demonstrate the effective use of tools, including tools for product development, product management, and production, to complete Web-based or digital communication projects.	RH 9-12.9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.  WHST 9-12.6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
Unit 6	Embedded, discussed, introduced, integrated, and reviewed throughout all units during the semester.	What is a scrolling marquee and when is it appropriate to use?  How are background graphics inserted onto a page?						
<b>Color and Graphics</b>								

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Standard Semester Elective	2 to 4 days							
Unit 7	18 weeks	Why has Dreamweaver become one of the industry's leading Web site design editing and management tools?	Dreamweaver is web design and development software. It creates standards compliant HTML, CSS and other file types used in the industry.	The Dreamweaver Interface Setting Up a Site in Dreamweaver FTP with Dreamweaver Creating Links Inserting Text Inserting Images	Introduction to Dreamweaver. Navigate through the program's interface. Create a basic document and begin adding attributes.	Teacher observation of student Student completing teacher assigned evaluation with rubric Successful completion of projects and assignments with terminology and content Teacher questioning of student	9.4.12.K.(3).7 Iterate through the design and development process to create a uniform Web-based or digital product. 9.4.12.K.(3).9 Design and employ the use of motion graphics to create a visual Web-based or digital design. 9.4.12.K.(3).10 Demonstrate the effective use of tools, including tools for product development, product management, and production, to complete Web-based or digital communication projects.	RH 9-12.9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. WHST 9-12.6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
<b>Introduction to Dreamweaver: Basics</b>								

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Unit 8 Text Formatting with Cascading Style Sheets	Standard Level: Semester Elective							
	4 to 6 days	What is CSS? Explain internal and external style sheets. Why has CSS become more relevant than HTML? What is the major advantage of using CSS over HTML?	Markup language CSS are style sheets applied for formatting and presentation separate from HTML documents.	Advanced styling with CSS. Using Cascading Style Sheets to Style Your Page Creating CSS rules in Dreamweaver Formatting Text with CSS Using CSS Selectors Embedding Style Sheets Attaching External Style Sheets	Apply cascading style sheets to format web pages. Use the file extension .css Practice internal and external style sheets. Familiarize CSS coding for formatting and embedding.	Teacher observation of student Student completing teacher assigned evaluation with rubric Successful completion of projects and assignments with terminology and content Teacher questioning of student	9.4.12.K.(3).7 Iterate through the design and development process to create a uniform Web-based or digital product. 9.4.12.K.(3).9 Design and employ the use of motion graphics to create a visual Web-based or digital design. 9.4.12.K.(3).10 Demonstrate the effective use of tools, including tools for product development, product management, and production, to complete Web-based or digital communication projects.	RH 9-12.9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. WHST 9-12.6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

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Standard Level: Semester Elective	2 - 4 days	Why are DIV's and ID selectors used with CSS?	Image quality can be enhanced with Photoshop.	The CSS Box Model	Discussed and utilized in assignments based on project criteria and specifications	Teacher observation of student	9.4.12.K.(3).7	RH 9-12.9.
Unit 9	18 weeks	What are classes? Define the following tags: -absolute positioning -relative positioning How do you manipulate a picture's quality?		Using div's and ID selectors for your layout Positioning with CSS Adding columns Using margins, padding and borders Inserting and Styling Tables Importing Table Data Styling Tables with CSS Sorting Data in Tables Adobe PhotoShop: Software and Application: • Tools and toolbars • Menus • Cropping • Resizing • Filters (If Needed) • Image Conversion • Saving of files • Manipulation • Layers • Image Adjustments	Projects assigned as outlined in document Student Discussion: Individual and Group (with or without Teacher) Utilized in projects during the semester	Student completing teacher assigned evaluation with rubric Successful completion of projects and assignments with terminology and content Teacher questioning of student	Iterate through the design and development process to create a uniform Web-based or digital product. 9.4.12.K.(3).9 Design and employ the use of motion graphics to create a visual Web-based or digital design. 9.4.12.K.(3).10 Demonstrate the effective use of tools, including tools for product development, product management, and production, to complete Web-based or digital communication projects.	Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. WHST 9-12.6. Use technology, including the Internet, to produce and publish writing and to interact with others.