

CompuScholar, Inc.**Alignment to South Carolina Fundamentals of Web Page
Design and Development Standards**

9th - 12th grades

South Carolina Course Details:

Course Title:	5031 - Fundamentals of Web Page Design and Development
Grade Level:	10th - 12th grade
Standards Link:	FundaWebDesignStandards7.16.18.pdf

CompuScholar Course Details:

Course Title:	Web Design
Course ISBN:	978-0-9887070-3-0
Course Year:	2018

Note 1: Citation(s) listed may represent a subset of the instances where objectives are met throughout the course.

Note 2: Citation(s) for a "Lesson" refer to the "Lesson Text" elements and associated "Activities" within the course, unless otherwise noted. The "Instructional Video" components are supplements designed to introduce or re-enforce the main lesson concepts, and the Lesson Text contains full details.

Course Description

This course will guide students in the development of websites in a project-based, problem-solving environment. Students will learn the industry standard languages, HTML and CSS, which are used in every website on the web today. Students will learn how to create a portfolio of content-rich, well-styled websites. Successful completion of this course will prepare students for industry certification.

Course Standards

A. SAFETY	CITATION(S)
<ol style="list-style-type: none"> 1. Review school safety policies and procedures. 2. Review classroom safety rules and procedures. 3. Review safety procedures for using equipment in the classroom. 4. Identify major causes of work-related accidents in office environments. 5. Demonstrate safety skills in an office/work environment. 	School and classroom-level policies and procedures are delegated to local teachers.

B. STUDENT ORGANIZATIONS	CITATION(S)
1. Identify the purpose and goals of a Career and Technology Student Organization (CTSO).	Supplemental Lesson 13
2. Explain how CTSOs are integral parts of specific clusters, majors, and/or courses.	Supplemental Lesson 13
3. Explain the benefits and responsibilities of being a member of a CTSO.	Supplemental Lesson 13
4. List leadership opportunities that are available to students through participation in CTSO conferences, competitions, community service, philanthropy, and other activities.	Supplemental Lesson 13
5. Explain how participation in CTSOs can promote lifelong benefits in other professional and civic organizations.	Supplemental Lesson 13

C. TECHNOLOGY KNOWLEDGE	CITATION(S)
1. Demonstrate proficiency and skills associated with the use of technologies that are common to a specific occupation.	Extensive use of HTML, CSS, text editors and web browsers throughout the course.
2. Identify proper netiquette when using e-mail, social media, and other technologies for communication purposes.	Chapter 16, Lesson 1
3. Identify potential abuse and unethical uses of laptops, tablets, computers, and/or networks.	Chapter 16, Lesson 2
4. Explain the consequences of social, illegal, and unethical uses of technology (e.g., piracy; illegal downloading; cyberbullying; licensing infringement; inappropriate uses of software, hardware, and mobile devices in the work environment).	Chapter 16, Lessons 1-2
5. Discuss legal issues and the terms of use related to copyright laws, fair use laws, and ethics pertaining to downloading of images, photographs, documents, video, sounds, music, trademarks, and other elements for personal use.	Chapter 11, Lesson 1 Chapter 16, Lesson 1 Chapter 19, Lesson 3
6. Describe ethical and legal practices of safeguarding the confidentiality of business- related information.	Chapter 16, Lessons 1-2
7. Describe possible threats to a laptop, tablet, computer, and/or network and methods of avoiding attacks.	Chapter 16, Lesson 2

D. PERSONAL QUALITIES AND EMPLOYABILITY SKILLS	CITATION(S)
<ol style="list-style-type: none"> 1. Demonstrate punctuality. 2. Demonstrate self-representation. 3. Demonstrate work ethic. 4. Demonstrate respect. 5. Demonstrate time management. 6. Demonstrate integrity. 7. Demonstrate leadership. 8. Demonstrate teamwork and collaboration. 9. Demonstrate conflict resolution. 10. Demonstrate perseverance. 11. Demonstrate commitment. 12. Demonstrate a healthy view of competition. 13. Demonstrate a global perspective. 14. Demonstrate health and fitness. 15. Demonstrate self-direction. 16. Demonstrate lifelong learning. 	<p style="text-align: center;">Students have multiple opportunities to work in teams to deliver full lifecycle projects (see Chapters 14 and 28), and will demonstrate these skills during those opportunities. See also Supplemental Lessons 4, 8</p>

E. PROFESSIONAL KNOWLEDGE	CITATION(S)
1. Demonstrate effective speaking and listening skills.	Chapters 14, 28 Supplemental Lessons 4, 8
2. Demonstrate effective reading and writing skills.	Chapter 13, Lesson 1 Chapters 14, 28 Supplemental Lessons 4, 7
3. Demonstrate mathematical reasoning.	Chapter 21, Lesson 1 Chapter 27, Lesson 3
4. Demonstrate job-specific mathematics skills.	Chapter 21, Lesson 1 Chapter 27, Lesson 3
5. Demonstrate critical-thinking and problem-solving skills.	Chapters 14, 28 Supplemental Lessons 4, 8
6. Demonstrate creativity and resourcefulness.	Chapters 14, 28 Supplemental Lessons 4, 8
7. Demonstrate an understanding of business ethics.	Chapter 16, Lesson 1
8. Demonstrate confidentiality.	Chapter 16, Lesson 1
9. Demonstrate an understanding of workplace structures, organizations, systems, and climates.	Chapters 14, 28 Supplemental Lessons 4, 8
10. Demonstrate diversity awareness.	Chapters 14, 28 Supplemental Lessons 4, 8
11. Demonstrate job acquisition and advancement skills.	Chapters 14, 28 Supplemental Lessons 4, 8

12. Demonstrate task management skills.	Chapters 14, 28 Supplemental Lessons 4, 8
13. Demonstrate customer-service skills.	Chapters 14, 28 Supplemental Lessons 4, 8

F. UNDERSTANDING THE INTERNET	CITATION(S)
1. Define web terminology.	Throughout the course
2. Describe the history and evolution of the internet.	Chapter 1, Lesson 2
3. Explain how the Internet functions, including the World Wide Web (WWW), browsers, FTP, URL, ISP and domains.	Chapter 15, Lessons 2 - 5 Supplemental Lesson 3
4. Describe the tools for accessing the Internet.	Chapter 1, Lesson 1 Supplemental Lesson 3

G. FOUNDATIONS OF WEB DESIGN	CITATION(S)
1. Research current best practices and emerging technologies.	Chapter 16, Lessons 3-4 Supplemental Lesson 9 Best practices throughout the course
2. Utilize technical documentation as part of the design and development process.	Chapter 13, Lesson 1 Chapters 14, 28 Supplemental Lessons 4, 7
3. Explain how websites and social media solve problems in business, industry, government, and education.	Chapter 1, Lesson 2 Chapter 10, Lesson 1 Chapter 13, Lesson 4 Chapter 16, Lesson 3
4. Explain the role of Hypertext Markup Language (HTML), Cascading Style Sheets (CSS), and JavaScript in Web development.	Chapter 1, Lesson 2 Chapter 6 Chapter 25, Lessons 1, 4
5. Evaluate the design of existing websites and their source code.	Chapter 17, Activity 1
6. View multiple websites using various browsers and computing devices.	Chapter 1, Lesson 1 Chapter 17, Lesson 1 Chapter 20, Lesson 1

H. PLANNING AND DESIGN	CITATION(S)
1. Determine the purpose and target audience of a website.	Chapter 10 Activity Chapter 13, Lessons 2, 4 Chapters 14, 28 Supplemental Lesson 4

2. Create relevant and appropriate content including text, graphics, and hyperlinks.	Chapters 14, 28 and throughout the course
3. Develop a design solution for a website including a storyboard, navigation plan, and wireframes/mockups.	Chapter 13, Lesson 1 Chapters 14, 28
4. Research and incorporate features that ensure a quality user experience (e.g., white space, page speed, interactivity, hyperlink differentiation, website consistency, responsiveness, accessibility, data usage).	Chapter 10, Lesson/Activity 1 Chapter 13, Lessons 2 - 3 Supplemental Lesson 9
5. Explore and apply color principles to websites.	Chapter 6, Lesson 2 Chapter 20, Lesson 2
6. Explore and apply current best practices for web typography.	Chapter 7, Lesson 1 Chapter 10, Lesson 1 Chapter 20, Lesson 4
7. Critique websites for professional quality in look and layout based on design principles.	Chapter 17, Activity 1

I. CONSTRUCTING WEBSITES	CITATION(S)
1. Develop a file management system for website content, utilizing proper naming conventions for files and folders.	Chapter 1, Lesson 3 Chapter 6, Lesson 5 Chapter 25, Lesson 4
2. Optimize media for web content (i.e., file size, resolution, compression).	Chapter 11, Lesson 1 Supplemental Lesson 5
3. Identify and solve coding errors throughout design process (i.e., debug).	Troubleshooting steps identified as needed throughout the course (e.g. Chapter 3, Lessons 1-2). See also Chapter 14, Lesson 3.
4. Add interactivity to a webpage using JavaScript.	Chapters 25 - 27
5. Integrate 3rd party code snippets (i.e., embed video, embed maps, shopping cart payment buttons).	Chapter 19, Lesson 1 Chapters 26, 27

J. CONSTRUCTING WEBSITES: HTML	CITATION(S)
1. Structure a webpage using appropriate HTML elements (i.e., html, head, title, body, meta, style).	Chapter 2, Lesson 4 Chapter 3, Lessons 1-2
2. Explain the purpose of the doctype declaration.	Chapter 2, Lesson 4
3. Explain and use appropriate file structure and naming.	Chapter 1, Lesson 3 Chapter 6, Lesson 5 Chapter 25, Lesson 4

4. Use HTML rules to create functional web pages (i.e., lowercase elements, proper nesting, quotes for attribute values).	Chapter 2, Lesson 4 Chapter 3, Lessons 1-2 Chapter 4, Lesson 1
5. Use a variety of HTML elements to create webpages (i.e., headings, lists, images, hyperlinks, span, div, etc.).	Chapters 2, 3, 4, 5, 11, 12, etc.
6. Compare and contrast block and inline elements.	Chapter 4, Lesson 1
7. Create relative and absolute hyperlinks.	Chapter 2, Lessons 2-4
8. Use special characters (e.g., © "e; < > & &mdash)	Chapter 4, Lesson 2
9. Demonstrate the use of semantic elements (e.g., header, footer, section, article, nav, aside).	Chapter 17, Lessons 2-4
10. Embed third-party content into a web page (e.g., calendar, form, map, video).	Chapter 19, Lesson 1 Supplemental Lessons 10-12

K. CONSTRUCTING WEBSITES: CSS	CITATION(S)
1. Create and modify CSS to format the styling of HTML elements and page layout.	Chapters 6-9, 18, 20-24
2. Identify parts of CSS syntax (i.e., rule, declaration, selector, property, value).	Chapter 6, Lesson 1
3. Compare and contrast inline, internal and external styles.	Chapter 6, Lessons 1, 3, 5
4. Use CSS to format HTML elements including:	
a. background (i.e., color, image);	Chapter 8, Lesson 2 Chapter 21, Lessons 1-2
b. font (i.e., type, size, and color);	Chapter 6, Lessons 1-2 Chapter 7, Lesson 1 Chapter 20, Lesson 4
c. text (i.e., align);	Chapter 7, Lesson 1
d. border (i.e., width, style, and color);	Chapter 8, Lesson 3 Chapter 20, Lesson 3
e. list (i.e., style type, position).	Chapter 4, Lesson 3
5. Format page layout with CSS including:	
a. CSS box model (i.e., width, height, border, padding, margin);	Chapter 7, Lesson 2 Chapter 8, Lesson 3 Chapter 9, Lessons 1-2
b. absolute and relative positioning;	Chapter 9, Lessons 1-2

c. floating elements;	Chapter 9, Lesson 4
d. converting between inline elements and block elements;	Chapter 24, Lesson 2
e. responsive design.	Chapter 10, Lesson 1

L. QUALITY USER EXPERIENCE	CITATION(S)
1. Comply with legal requirements and standards for accessibility on the web.	Chapter 13, Lesson 2 Chapters 14, 28
2. Optimize websites to accommodate users with special needs.	Chapter 13, Lesson 2 Chapters 14, 28
3. Discuss issues relating to usability on a variety of platforms and devices.	Chapter 13, Lesson 2 Chapters 14, 28
4. Test and debug websites in multiple browsers.	Chapter 1, Lesson 1 Chapter 17, Lesson 1 Chapter 20, Lesson 1 Chapters 14, 28
5. Identify and use validation tools.	Supplemental Lesson 9

M. PUBLISHING AND MAINTAINING WEBSITES	CITATION(S)
1. Explain the domain naming system.	Chapter 15, Lesson 3
2. Identify the process for obtaining a domain name, acquiring hosting, and uploading and maintaining a website.	Supplemental Lessons 1, 2, 4, 9
3. Research features and costs of domain name and hosting providers.	Supplemental Lessons 1, 2

N. CAREER DEVELOPMENT	CITATION(S)
1. Compare and contrast various job positions in the web design and development industry including compensation, required credentials, educational pathways, and work environment.	Supplemental Lesson 8
2. Prepare an electronic portfolio of projects developed in the class.	Multiple websites developed throughout the course. See also Supplemental Lesson 8