

CompuScholar, Inc.

Alignment to Nevada "Web Design and Development" Course Standards

Nevada Course Details:

Course Name:	Web Design and Development
Primary Cluster:	Information Technology
CIP Code(s):	11.0801
Credit:	1
Grade Level:	9th-12th
Program Standards Link:	Program Standards - Web Design and Development (2012)
Framework Link:	Curriculum Frameworks - Web Design & Development (2012)

CompuScholar Course Details:

Course Title:	Web Design
Course ISBN:	978-0-9887070-3-0
Course Year:	2019

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

CompuScholar's "Web Design" course teaches HTML & CSS for web page creation. This document demonstrates how the course meets standards within the Nevada Web Design and Development sequence. The Nevada standards listed below represent a 3-year / 3-Level program (L1, L2, L3) and different performance indicators apply to different levels. The applicable level is marked next to each citation.

"Web Design" is a 1-year course that can be flexibly applied to any chosen Nevada "level" at the discretion of the local school or district.

Course Standards

CONTENT STANDARD 1.0: UNDERSTAND THE FOUNDATIONS OF WEB DESIGN AND DEVELOPMENT	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 1.1: UNDERSTAND THE HISTORY OF WEB DESIGN AND DEVELOPMENT		
1.1.1 Research career opportunities	Suppl. Lesson 8	1
1.1.2 Describe the history and impact of social media	N/A	1
1.1.3 Describe the role of the World Wide Web Consortium (W3C) in defining web standards	Chapter 1, Lessons 1 - 2 Chapter 13, Lesson 2	1

1.1.4 Research the history of the World Wide Web	Chapter 1, Lesson 2	1
1.1.5 Compare and contrast the Internet and the World Wide Web	Chapter 15, Lesson 2	1
PERFORMANCE STANDARD 1.2: LAYOUT AND DESIGN THEORY		
1.2.1 Explain color theory	Chapter 6, Lesson 2	1
1.2.2 Explain the principles of design	Chapter 10, Lesson 1	1
1.2.3 Explain the elements of design	Chapter 10, Lesson 1	1
1.2.4 Describe the role of typography	Chapter 10, Lesson 1	1
1.2.5 Evaluate the use of white space	Chapter 10, Lesson 1	1
1.2.6 Describe the web design and development cycle	Suppl. Lessons 4, 8	1
PERFORMANCE STANDARD 1.3: DEMONSTRATE KNOWLEDGE OF INDUSTRY TERMINOLOGY		
1.3.1 Define common terminology and their acronyms	Throughout the course as needed	1, 2, 3
1.3.2 Communicate both written and verbally using appropriate industry terminology	Throughout the course as needed	1, 2, 3

CONTENT STANDARD 2.0 : UNDERSTAND ETHICAL USE OF INFORMATION	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 2.1 : UNDERSTAND COPYRIGHT LAWS IN RELATIONSHIP TO WEB DEVELOPMENT		
2.1.1 Research laws that govern intellectual property in diverse forms	Chapter 16, Lesson 1	1
2.1.2 Evaluate Creative Commons licensure	Chapter 11, Lesson 1	1
2.1.3 Cite the boundaries of third-party work	N/A	1
2.1.4 Explain terms related to copyright, trademarks, and other intellectual property	Chapter 11, Lesson 1 Chapter 16, Lesson 1	1
PERFORMANCE STANDARD 2.2 : UNDERSTAND SECURITY ISSUES IN RELATION TO WEB DEVELOPMENT		
2.2.1 Explain invasion of privacy in the use of technology	Chapter 16, Lesson 2	1
2.2.2 Model acceptable security practices	Chapter 16, Lesson 2	1

2.2.3 Analyze your personal digital footprint	Chapter 16, Lesson 2	1
2.2.4 Differentiate between secure and unsecure web protocols	Chapter 16, Lesson 2	1
PERFORMANCE STANDARD 2.3 : APPLY PERSONAL AND PROFESSIONAL ETHICS		
2.3.1 Model legal and ethical use of information	Chapter 16, Lesson 1	1, 2, 3
2.3.2 Identify key elements of non-disclosure agreements (NDA)	N/A	1, 2, 3
2.3.3 Analyze content for bias	N/A	1, 2, 3

CONTENT STANDARD 3.0 : CONSTRUCT A WEBSITE	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 3.1 : DEVELOP A FILE MANAGEMENT SYSTEM		
3.1.1 Create a maintainable directory structure for a website	Chapter 2, Lesson 1 Chapter 5, Lesson 2 Chapter 25, Lesson 4	1
3.1.2 Apply file naming protocols	Chapter 1, Lesson 3	1
3.1.3 Demonstrate and use correct file paths for relative and absolute links	Chapter 5, Lesson 2 Chapter 5, Lesson 4	1
3.1.4 Recognize the relationship between local and remote site structures	Chapter 5, Lesson 2 Chapter 5, Lesson 4	1, 2
3.1.5 Develop data backup procedures	Chapter 2, Lesson 1	1
PERFORMANCE STANDARD 3.2 : DEMONSTRATE PROPER LAYOUT TECHNIQUES		
3.2.1 Identify commonly used layout techniques for web design	Chapter 10, Lesson 1	1
3.2.2 Develop appropriate navigation systems (site map)	Chapter 13, Lesson 1	1
3.2.3 Develop wireframe for initial design concept	Chapter 13, Lesson 1	1
3.2.4 Calculate resolution for various displays (e.g., desktop, mobile, tablet, etc.)	N/A	1
3.2.5 Identify the uses of Cascading Style Sheets (CSS)	Chapter 6 and many other lessons	1, 2, 3
PERFORMANCE STANDARD 3.3 : CREATE WEB CONTENT		
3.3.1 Discuss and differentiate voice, tone, and style as it applies to web writing	N/A	1, 2, 3

3.3.2 Determine the primary and secondary purposes of web content	N/A	1, 2, 3
3.3.3 Identify target audiences and reading levels for specific websites	N/A	1, 2, 3
3.3.4 Create a list of keywords and descriptions (meta tags) to include in web content for search engine optimization (SEO)	Chapter 13, Lesson 4	1
3.3.5 Apply grammar and spelling conventions to content	Chapter 14, Lesson 3	1, 2, 3
3.3.6 Evaluate existing content for web use (e.g., images, print documents, text, video, etc.)	Chapter 14, Lesson 1	1, 2, 3
PERFORMANCE STANDARD 3.4 : CREATE MEDIA FOR THE WEB		
3.4.1 Describe common media file formats	Chapter 11, Lesson 1 Chapter 19, Lesson 1 Chapter 19, Lesson 3	1, 2, 3
3.4.2 Identify appropriate software for media creation	Chapter 11, Lesson 1 Chapter 11, Activity 1	1, 2, 3
3.4.3 Create and edit media files (e.g., sound, video, graphics, multimedia)	Chapter 11, Lesson 1 Chapter 11, Activity 1	1, 2, 3
3.4.4 Optimize media files for uploading using compression tools	Chapter 11, Lesson 1 Chapter 11, Activity 1	1, 2, 3
3.4.5 Embed media files in a web design	Chapter 11, Lesson 2 Chapter 19 (All)	1, 2
3.4.6 Calculate and convert images to desired sizes and resolution	Chapter 11, Lesson 1 Chapter 11, Lesson 2	1
PERFORMANCE STANDARD 3.5 : DEMONSTRATE KNOWLEDGE OF CHALLENGES ASSOCIATED WITH ACCESSIBILITY AND USABILITY		
3.5.1 Describe regional, national and international legal requirements and standards for accessibility on the web	Chapter 13, Lesson 2	1, 2, 3
3.5.2 Identify types of disabilities that should be considered when designing websites	Chapter 13, Lesson 2	1, 2, 3
3.5.3 Optimize websites to accommodate users with special needs	Chapter 13, Lesson 2	1, 2, 3
3.5.4 Explain website usability procedures	Chapter 13, Lesson 2	1, 2, 3
PERFORMANCE STANDARD 3.6 : UNDERSTAND THE IMPACT OF MARKETING, ANALYTICS, AND BRANDING		
3.6.1 Identify web page content that is relevant to the purpose and target audience	Chapter 13, Lesson 4	1, 2, 3
3.6.2 Identify important meta tags that communicate a clear information hierarchy and keyword prominence to search	Chapter 3, Lesson 1	1, 2, 3
3.6.3 List and describe best practices in content creation that foster indexing and ranking of websites	Chapter 13, Lesson 4	1, 2, 3
3.6.4 Describe web analytics for purposes of understanding and analyzing web usage	Suppl. Lesson 9	1, 2, 3

3.6.5 Create a branding message that will present a professional image	Chapter 10 (All)	1, 2, 3
PERFORMANCE STANDARD 3.7 : UPDATE AND MAINTAIN WEB CONTENT		
3.7.1 Evaluate content with client for relevancy	Suppl. Lesson 4	1, 2, 3
3.7.2 Evaluate content for viability	Suppl. Lesson 4	1, 2, 3
3.7.3 Monitor validity of hyperlinks	Chapter 14, Lesson 3	1, 2, 3
3.7.4 Maintain and update all website documentation (e.g., prototype, site map, navigation, etc.)	Chapter 13, Lesson 1 Chapter 14, Lesson 2	1, 2, 3

CONTENT STANDARD 4.0 : UNDERSTAND THE PROCESS OF PUBLISHING A WEBSITE	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 4.1 : UNDERSTAND FUNDAMENTALS OF A WEB SERVER		
4.1.1 Identify server hardware and software components	Suppl. Lesson 1	1, 2
4.1.2 Explain the relationship between client and server	Chapter 13, Lesson 3 Chapter 15, Lesson 2	1, 2
4.1.3 Describe the process to configure and test a web server	N/A	1, 2
4.1.4 Explain common web server maintenance routines	N/A	1, 2
PERFORMANCE STANDARD 4.2 : DEMONSTRATE PUBLISHING TO THE WEB		
4.2.1 Identify the purpose of File Transfer Protocol (FTP)	Chapter 15, Lesson 5	1
4.2.2 Demonstrate the use of FTP	Chapter 15, Lesson 5	1
4.2.3 Describe the technical requirements involved in choosing a web host	Suppl. Lesson 1	1
4.2.4 Preview and test web pages for compatibility using various browsers and output devices	Chapter 17, Lesson 1 Chapter 20, Lesson 1	1, 2, 3
4.2.5 Describe the process of locating and registering a domain name	Suppl. Lesson 2	1, 2, 3

CONTENT STANDARD 5.0 : DEMONSTRATE KNOWLEDGE OF WEB PROGRAMMING	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 5.1 : DEVELOP A WEBSITE USING HYPERTEXT MARKUP LANGUAGE (HTML)		
5.1.1 Explain the role of Hypertext Markup Language (HTML) in web development	Chapter 1, Lesson 2	1
5.1.2 Differentiate among the different forms of HTML	Chapter 1, Lesson 2	1
5.1.3 Identify HTML tags for authoring a web page document	Chapter 2, Lesson 4 Chapter 3 (All) Many other lessons	1
5.1.4 Code a basic web page utilizing proper HTML document structure in a text editor	All chapters / entire course	1
5.1.5 Identify and use online validation tools	Suppl. Lesson 9	1
PERFORMANCE STANDARD 5.2 : UNDERSTAND CONCEPTS AND USE OF CASCADING STYLE SHEETS (CSS)		
5.2.1 Describe the role of CSS in relation to web design	Chapter 6, Lesson 1	1
5.2.2 Identify the structure of CSS style rules	Chapter 6, Lesson 1	1
5.2.3 Describe CSS selector types	Chapter 6, Lesson 1 Chapter 22 (All) Chapter 23 (All)	1
5.2.4 Differentiate between internal, external and inline style sheets	Chapter 6, Lesson 1 Chapter 6, Lesson 3 Chapter 6, Lesson 5	1
5.2.5 Use CSS to style and layout webpage content (e.g., box model, div layout, etc.)	Chapter 6 (All) Chapter 7 (All) Chapter 9 (All)	1
5.2.6 Compare and contrast static, relative, absolute and fixed positioning	Chapter 9 (All)	1, 2
PERFORMANCE STANDARD 5.3 : UNDERSTAND FOUNDATIONS OF WEB SCRIPTING		
5.3.1 Explain the use of current web scripting technologies	Chapter 13, Lesson 3 Chapter 25, Lesson 1	2, 3
5.3.2 Implement scripting (e.g., rollovers, form scripts, etc.)	Chapter 25 (All) Chapter 26 (All) Chapter 27 (All)	2, 3
5.3.3 Compare and contrast client (browser) scripting and server scripting (e.g., PHP, JavaScript, ASP.NET, etc.)	Chapter 13, Lesson 3	2, 3
5.3.4 Enhance interactivity of websites using current scripting trends	Chapter 25 (All) Chapter 26 (All) Chapter 27 (All)	2, 3

5.3.5 Compare and contrast between static versus dynamic websites	Chapter 13, Lesson 3	2, 3
PERFORMANCE STANDARD 5.4 : UNDERSTAND DATABASES		
5.4.1 Identify and describe relational databases	N/A	3
5.4.2 Identify the use of Extensible Markup Language (XML) for the transportation and storage of data	N/A	3
5.4.3 Describe the purpose of a database as it relates to web development	Chapter 13, Lesson 3	3
5.4.4 Incorporate a database into a website	N/A	3
PERFORMANCE STANDARD 5.5 : UTILIZE CONTENT MANAGEMENT SYSTEMS IN WEB DEVELOPMENT		
5.5.1 Identify content management systems (CMS) (e.g., Word Press, Joomla, etc.)	N/A	2, 3
5.5.2 Evaluate current trends in CMS (e.g., blogging, online magazine, corporate websites, etc.)	N/A	2, 3
5.5.3 Construct a site using a CMS	N/A	2, 3

CONTENT STANDARD 6.0 : UNDERSTAND ADVANCED AND EMERGING TECHNOLOGIES IN WEB DEVELOPMENT	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 6.1 : UNDERSTAND E-COMMERCE CONCEPTS		
6.1.1 Define e-commerce as it relates to web development	Chapter 13, Lesson 4	1, 2, 3
6.1.2 Explain how to integrate a shopping cart into a web page	N/A	3
6.1.3 Evaluate payment portal options	N/A	3
PERFORMANCE STANDARD 6.2 : UNDERSTAND THE ROLE OF SOCIAL MEDIA		
6.2.1 Describe the role of social media in web development	N/A	1
6.2.2 Discuss current trends in social media	N/A	1
6.2.3 Create and implement a strategy that uses social networks to drive traffic to a website	N/A	1, 2, 3
6.2.4 Define Real Simple Syndication (RSS) and use feed aggregating tools to collect information	N/A	2, 3

PERFORMANCE STANDARD 6.3 : UTILIZE CLOUD COMPUTING RESOURCES		
6.3.1 Define cloud computing	N/A	1
6.3.2 Identify open source technologies relevant to cloud computing	N/A	1
6.3.3 Develop a website using cloud computing	N/A	2, 3

Employability Skills for Career Readiness Standards

CONTENT STANDARD 1.0: DEMONSTRATE EMPLOYABILITY SKILLS FOR CAREER READINESS	CITATION(S)	LEVEL(S)
PERFORMANCE STANDARD 1.1: DEMONSTRATE PERSONAL QUALITIES AND PEOPLE SKILLS		
1.1.1 Demonstrate a positive work ethic by coming to work every day on time, a willingness to take direction, and motivation to accomplish the task at hand	Chapters 14, 28 (Team projects with team roles & deliverables) Suppl. Lesson 8	1, 2, 3
1.1.2 Demonstrate integrity by abiding by workplace policies and laws and demonstrating honesty and reliability	Chapters 14, 28 (Team projects with team roles & deliverables) Suppl. Lesson 8	1, 2, 3
1.1.3 Demonstrate teamwork skills by contributing to the success of the team, assisting others, and requesting help when needed	Chapters 14, 28 (Team projects with team roles & deliverables) Suppl. Lesson 8	1, 2, 3
1.1.4 Demonstrate positive self-representation skills by dressing appropriately and using language and manners suitable for the workplace	Chapters 14, 28 (Team projects with team roles & deliverables) Suppl. Lesson 8	1, 2, 3
1.1.5 Demonstrate diversity awareness by working well with all customers and coworkers	Chapters 14, 28 (Team projects with team roles & deliverables) Suppl. Lesson 8	1, 2, 3
1.1.6 Demonstrate conflict-resolution skills by negotiating diplomatic solutions to interpersonal and workplace issues	Chapters 14, 28 (Team projects with team roles & deliverables) Suppl. Lesson 8	1, 2, 3
1.1.7 Demonstrate creativity and resourcefulness by contributing new ideas and working with initiative	Chapters 14, 28 (Team projects with team roles & deliverables) Suppl. Lesson 8	1, 2, 3
PERFORMANCE STANDARD 1.2: DEMONSTRATE PROFESSIONAL KNOWLEDGE AND SKILLS		
1.2.1 Demonstrate effective speaking and listening skills by communicating effectively with customers and employees and following directions	Multiple opportunities to speak, listen and follow directions	1, 2, 3
1.2.2 Demonstrate effective reading and writing skills by reading and interpreting workplace documents and writing clearly	Multiple opportunities to read and write technical documents	1, 2, 3

1.2.3 Demonstrate critical-thinking and problem-solving skills by analyzing and resolving problems that arise in completing assigned tasks	Hands-on tasks are completed throughout the course	1, 2, 3
1.2.4 Demonstrate healthy behaviors and safety skills by following safety guidelines and managing personal health	N/A (See Digital Savvy)	1, 2, 3
1.2.5 Demonstrate understanding of workplace organizations, systems, and climates by identifying “big picture” issues and fulfilling the mission of the workplace	Suppl. Lessons 4, 8	1, 2, 3
1.2.6 Demonstrate lifelong-learning skills by continually acquiring new industry-related information and improving professional skills	Suppl. Lessons 4, 8, 13	1, 2, 3
1.2.7 Demonstrate job acquisition and advancement skills by preparing to apply for a job and seeking promotion	Suppl. Lesson 4	1, 2, 3
1.2.8 Demonstrate time, task, and resource management skills by organizing and implementing a productive plan of work	Chapters 14, 28 Suppl. Lesson 4	1, 2, 3
1.2.9 Demonstrate mathematics skills by using mathematical reasoning to accomplish tasks	N/A	1, 2, 3
1.2.10 Demonstrate customer service skills by identifying and addressing the needs of all customers and providing helpful, courteous, and knowledgeable service	N/A (See Digital Savvy)	1, 2, 3
PERFORMANCE STANDARD 1.3 : DEMONSTRATE TECHNOLOGY KNOWLEDGE AND SKILLS		
1.3.1 Demonstrate proficiency with job-specific technologies by selecting and safely using technological resources to accomplish work responsibilities in a productive manner	Technical resources used throughout the course	1, 2, 3
1.3.2 Demonstrate proficiency with information technology by using computers, file management techniques, and software/programs effectively	Computers, file management and software used throughout the course	1, 2, 3
1.3.3 Demonstrate proper Internet use and security by using the Internet appropriately for work	Internet used safely and securely to access online course material	1, 2, 3
1.3.4 Demonstrate proficiency with telecommunications by selecting and using appropriate devices, services, and applications	Appropriate devices and applications used throughout the course	1, 2, 3