

eDynamic Learning Course Title: Digital Media Web Design 2a / 2b

State: TX  
State Course Title: Web Design  
State Course Code: 130.316  
State Standards: Information Technology  
Date of Standards: 2020

TEKS	Course Title. (a or b), if applicable, e.g. Game Design 1a	Unit Name(s)	Lesson(s) Numbers
(1) Creativity and innovation. The student demonstrates creative thinking, constructs knowledge, and develops innovative products and processes using technology.			
(A) demonstrate proficiency in local and online collaboration;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 7: Securing, Testing, and Launching an E-commerce Website	Activity
(B) create a website using web editors and web authoring programs;	Digital Media Web Design 2a: Build an Portfolio Website	Unit 7: Web development Process	Lessons 1-3
(C) evaluate the accessibility and usability of an original website as it relates to a target audience;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 7: Securing, Testing, and Launching an E-commerce Website	Lessons 1-3
(D) conceptualize new possible technologies based on current technical trends;	Digital Media Web Design 2a: Build an Portfolio Website	Unit 1: Getting Read for a Career in Digital Media	Lessons 1-3
(E) analyze the use of virtualization such as virtual classrooms, distance learning, virtual storage, and a virtual operating system;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 4: Understanding E-commerce	Lesson 1
(F) demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components; and	Digital Media Web Design 2b: Build an E-commerce Website	Unit 2: Web Development Tools	Lessons 1-3
(G) make decisions regarding the selection, acquisition, and use of software, taking into consideration its quality, appropriateness, effectiveness, and efficiency.	Digital Media Web Design 2b: Build an E-commerce Website	Unit 1: Website Project Management	Lessons 2, 3
(2) Communication and collaboration. The student uses digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning experience of others.			
(A) analyze and implement the proper and acceptable use of digital/virtual communications technologies such as instant messaging (IM), chat, email, and social networking;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lessons 1 ,2
(B) define and implement the acquisition, sharing, and use of files, taking into consideration their primary ownership and copyright;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lessons 1-3

(C) apply decisions regarding the selection, acquisition, and sharing of uniform resource locators (URLs) used in research, taking into consideration their quality, appropriateness, and effectiveness;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 2
(D) solve problems using critical-thinking strategies; and	Digital Media Web Design 2a: Build a Portfolio Website	Unit 8: Presenting Your Work	Activity
(E) compare, evaluate, and implement the use of wired versus wireless access.	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lessons 1-3
<b>(3) Research and information fluency. The student applies digital tools to gather, evaluate, and use information.</b>			
(A) verify the accuracy, validity, and currency of acquired information;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 1: Getting Ready for a Career in Digital Media	Activity
(B) conduct effective searches with Boolean operators;			
(C) acquire and use appropriate vocabulary terms;	Digital Media Web Design 2b: Build an E-commerce Website	All Units	All Lessons
(D) cite sources appropriately using established methods;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Activity
(E) model ethical and legal acquisition of digital information following guidelines in the student code of conduct, including plagiarism and copyright laws;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lessons 1-3
(F) identify and discuss emerging technologies and their impact;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 4: Understanding E-commerce	Lesson 1
(G) understand Internet history and structure and how they impact current use;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 2: Web Development Tools	Activity
(H) demonstrate appropriate use of grammar, spelling, and vocabulary when creating original work;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 7: The Web development Process	Lesson 3
(I) acquire, evaluate, and use various web standards such as World Wide Web Consortium (W3C), Ecma International, and Internet Corporation for Assigned Names and Numbers (ICANN) to make informed decisions and implement standards in original work;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lesson 3
(J) understand, analyze, and use interactive websites;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 5: Multimedia and Interactivity	Lessons 1-3
(K) understand, evaluate, and determine the appropriate use of dynamic and static websites;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 3
(L) understand, evaluate, and determine the appropriate use of open/closed source file formats and software;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lesson 2

(M) explain and demonstrate how search engines work such as advanced options, preferences, advertising, and search categories;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 8: Marketing Your Site	Lesson 2
(N) evaluate, create, and apply principles of project management, including web storyboards, site maps, job duties, time constraints, group dynamics, communication interaction, and project completion, evaluation, and feedback;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 1: Website Project Management	Lessons 1-3
(O) understand the use and application of a virtual private network (VPN);	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 1
(P) distinguish among protocols, including Hypertext Transfer Protocol (HTTP) and File Transfer Protocol (FTP);	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lessons 2, 4
(Q) summarize the technical needs of a World Wide Web server, including random access memory (RAM), hard disk capacity, central processing unit (CPU) speed, busses, methods of connectivity, and appropriate software;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 1
(R) demonstrate proficiency in the use of a variety of electronic input devices such as keyboard, scanner, voice/sound recorder, mouse, touch screen, or digital video by incorporating such components while publishing web pages;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 5: Multimedia and Interactivity	Activity
(S) demonstrate proper digital etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranets;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Activity
(T) demonstrate proficiency in and appropriate use and navigation of local area networks (LANs), wide area networks (WANs), the Internet, and intranets for research and resource sharing;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 1
(U) construct appropriate search strategies in the acquisition of information from the Internet, including keyword searches and searches with Boolean operators; and	Digital Media Web Design 2b: Build an E-commerce Website	Unit 1: Website Project Management	Activity
(V) acquire information in electronic formats, including text, audio, video, and graphics, citing the source.	Digital Media Web Design 2a: Build an Portfolio Website	Unit 5: Multimedia and Interactivity	Lesson 3
<b>(4) Critical thinking, problem solving, and decision making. The student uses critical-thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.</b>			
(A) demonstrate the transfer and adaptation of knowledge through the creation of original work;	Digital Media Web Design 2a: Build an Portfolio Website	Unit 7: Web development Process	Lessons 1-3, Activity
(B) evaluate and implement security measures to protect original work such as firewalls and Hypertext Transfer Protocol Secure (HTTPS);	Digital Media Web Design 2b: Build an E-commerce Website	Unit 7: Securing, Testing, and Launching an E-commerce Website	Lessons 1-3

(C) analyze and follow timelines needed to create, edit, and present original work;	Digital Media Web Design 2a: Build an Portfolio Website	Unit 1: Getting Ready for a Career in Digital Media	Activity
(D) verify current licensing issues for software being used for the creation of original work;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lesson 1
(E) identify and evaluate the design and functionality of web pages using rubrics;	Digital Media Web Design 2a: Build an Portfolio Website	Unit 3: Introduction to HTML	Activity
(F) optimize web information for fast download such as dial-up and high-speed Internet and mobile devices;	Digital Media Web Design 2a: Build an Portfolio Website	Unit 2: Web Development Basics	Lesson 1
(G) evaluate original work through self-, peer, and professional review of websites;	Digital Media Web Design 2a: Build an Portfolio Website	Unit 8: Presenting Your Work	Activity
(H) evaluate the types, functions, and target audiences of websites;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 1: Website Project Management	Activity
(I) read, use, and develop technical documents;	Digital Media Web Design 2a: Build an Portfolio	Unit 5: Multimedia and Interactivity	Lesson 4, Activity
(J) analyze, examine, assess, and decide on servers as they relate to the management of a website;	Digital Media Web Design 2a: Build an Portfolio	Unit 2: Web Development Basics	Lessons 3, 4
(K) analyze, examine, assess, and decide on a web host;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 4
(L) analyze, examine, assess, and decide on domain name acquisition and retention;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lessons 2, 4
(M) evaluate the functionality of a website such as color scheme, grammar, technological constraints, age appropriateness, cross-platform usability, and user relevant criteria as it relates to an intended audience;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 6: Designing a website	Lessons 1-3
(N) identify software file formats and their characteristics and appropriate use;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 5: Designing Your E-commerce Site	Lesson 1
(O) identify and apply search engine optimization (SEO) to ensure optimal website visibility;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 5: Designing Your E-commerce Site	Lesson 3
(P) investigate and choose electronic security methods for a web server to protect from unauthorized access and negative intentions; and	Digital Media Web Design 2b: Build an E-commerce Website	Unit 7: Securing, Testing, and Launching an E-commerce Website	Lesson 1
(Q) draw conclusions from data gathered from electronic and telecommunication resources.	Digital Media Web Design 2a: Build an Portfolio Website	Unit 1: Getting Read for a Career in Digital Media	Activity
<b>(5) Digital citizenship. The student understands human, cultural, and societal issues related to technology and practices legal and ethical behavior.</b>			

(A) engage in online activities that follow appropriate behavioral, communication, and privacy guidelines, including ethics, personal security, verbiage determined by the intended audience, and ethical use of files and file sharing;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lessons 1-3
(B) understand the negative impact of inappropriate technology use, including online bullying and harassment;			
(C) implement online security guidelines, including identity protection, limited personal information sharing, and password protection of a secure website;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 7: Securing, Testing, and Launching an E-commerce Website	Lesson 1
(D) engage in safe, legal, and responsible use of information and technology;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lesson 1
(E) understand and respond to local, state, national, and global issues to ensure appropriate cross-browser and cross-platform usability;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 7: Securing, Testing, and Launching an E-commerce Website	Lesson 1
(F) interpret, use, and develop a safe online shared computing environment;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 7: Securing, Testing, and Launching an E-commerce Website	Lesson 1
(G) identify legal, ethical, appropriate, and safe website marketing practices;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lesson 1
(H) identify legal, ethical, appropriate, and safe multimedia usage, including video, audio, graphics, animation, and emerging trends;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lesson 2
(I) analyze the impact of the World Wide Web on society through research, interviews, and personal observation; and	Digital Media Web Design 2b: Build an E-commerce Website	Unit 2: Web Development Tools	Activity
(J) participate in relevant and meaningful activities in the larger community and society to create electronic projects.	Digital Media Web Design 2b: Build an E-commerce Website	Unit 8: Marketing Your Site	Lesson 1
<b>(6) Technology operations and concepts. The student demonstrates a sound understanding of technology concepts, systems, and operations.</b>			
(A) demonstrate knowledge of hardware, including scanners, cameras, printers, video cameras, and external hard drives;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 1
(B) identify the parts of a computer and explain its functions;			
(C) summarize the need for and functionality and use of servers;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lessons 1-3
(D) identify the advantages and disadvantages of running a personal web server versus using a web server provider;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lessons 1, 4

(E) differentiate and appropriately use various input, processing, output, and primary/secondary storage devices;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 1
(F) create and implement universally accessible documents;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 3: Website Standards and Accessibility	Lesson 4
(G) analyze bandwidth issues as related to audience, server, connectivity, and cost;			
(H) establish a folder/directory hierarchy for storage of a web page and its related or linked files;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 4
(I) create file and folder naming conventions to follow established guidelines, including spacing, special characters, and capitalization;			
(J) identify basic design principles when creating a website, including white space, color theory, background color, shape, line, proximity, unity, balance (ratio of text to white space), alignment, typography, font size, type, style, image file size, repetition, contrast, consistency, and aesthetics;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 5: Designing Your E-commerce Site	Lessons 1-3
(K) demonstrate knowledge of the six core domains (gov, net, com, mil, org, edu) and be familiar with new domain implementation;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lessons 2, 4
(L) implement escape codes, HyperText Markup Language (HTML), cascading style sheets (CSS), and JavaScript through hard coding, web editors, and web authoring programs;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 3: Introduction to HTML	Lessons 1-4
(M) identify and use FTP client software;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lesson 5
(N) implement java applet insertion;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 5: Multimedia and Interactivity	Lessons 1-3
(O) identify and differentiate various network topologies, including physical and logical;	Digital Media Web Design 2a: Build a Portfolio Website	Unit 2: Web Development Basics	Lessons 1-3
(P) create, evaluate, and use web-based animation;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 6: Create an E-commerce Website	Lesson 3
(Q) create, evaluate, and use video, including editing, compression, exporting, appropriateness, and delivery;	Digital Media Web Design 2b: Build an E-commerce Website	Unit 6: Create an E-commerce Website	Lesson 2
(R) demonstrate the ability to conduct secure communications from a web server to a client; and	Digital Media Web Design 2a: Build an Portfolio	Unit 5: Multimedia and Interactivity	Lesson 4, Activity
(S) use hypertext linking appropriately when creating web pages.	Digital Media Web Design 2b: Build an E-commerce Website	Unit 6: Create an E-commerce Website	Lessons 2, 3