

**eDynamic Learning Course Title: Web Development 1a/1b**
**State: TX**
**State Course Title: Web Technologies**
**State Course Code: 130.308**
**State Standards: Information Technology**
**Date of Standards: 2017**

TEKS	Course Title. (a or b), if applicable, e.g. Game Design 1a	Unit Name(s)	Lesson(s) Numbers
<b>(1) The student demonstrates professional standards/employability skills as required by business and industry.</b>			
(A) identify and demonstrate work behaviors and qualities that enhance employability and job advancement such as regular attendance, attention to proper attire, maintenance of a clean and safe work environment, pride in work, flexibility, and initiative;	Web Development 1b	Unit 8: Working the Web	Lessons 1-4
(B) employ effective verbal and nonverbal communication skills;	Web Development 1b	Unit 8: Working the Web	Lesson 3
(C) examine the role of certifications, resumes, and portfolios in the web technology profession;	Web Development 1b	Unit 8: Working the Web	Lesson 2
(D) solve problems and think critically;	Web Development 1b	Unit 8: Working the Web	Lesson 3
(E) demonstrate leadership skills and function effectively as a team member; and	Web Development 1b	Unit 8: Working the Web	Lessons 1 ,2
(F) demonstrate planning and time-management skills such as storyboarding and project management, including initiating, planning, executing, monitoring and controlling, and closing a project.	Web Development 1a	Unit 6: User-Centered Planning and Project Management	Lessons 1-3
<b>(2) The student identifies employment opportunities in the IT field with a focus in the area of interactive media.</b>			
(A) identify job opportunities and accompanying job duties and tasks;	Web Development 1b	Unit 8: Working the Web	Lab
(B) research careers of personal interest along with the education, job skills, and experience required to achieve personal career goals;	Web Development 1b	Unit 8: Working the Web	Lab
(C) demonstrate an understanding of the functions of resumes and portfolios; and	Web Development 1b	Unit 8: Working the Web	Lesson 2
(D) create a portfolio.	Web Development 1b	Unit 8: Working the Web	Activity 2
<b>(3) The student demonstrates knowledge and appropriate use of hardware, software, and connectivity technologies.</b>			

(A) identify networking components and define the impact of networking components on web development;	Web Development 1b	Unit 7: The Mobile Web	Lessons 1-4
(B) evaluate the various input, processing, output, and storage devices and storage services;	Web Development 1a	Unit 8: Web Project Workflow	Lesson 4
(C) identify current and future Internet protocols such as hypertext transfer protocol, file transfer protocol, telnet, and email; and	Web Development 1a	Unit 7: The Mobile Web	Lesson 3
(D) describe new trends in web technology and evaluate their impact on web development.	Web Development 1a	Unit 5: Serving Up the Web	Lesson 4
<b>(4) The student complies with practices and behaviors that meet legal and ethical responsibilities.</b>			
(A) explain and demonstrate ethical use of technology and online resources;	Web Development 1b	Unit 6: Web Regs	Lessons 1-3
(B) differentiate between copyright and trademarks;	Web Development 1b	Unit 6: Web Regs	Lesson 1
(C) explain the concept of intellectual property laws, including copyright, trademarks, and patents and consequences of violating each type of law;	Web Development 1b	Unit 6: Web Regs	Lesson 1
(D) examine the consequences of plagiarism;	Web Development 1b	Unit 6: Web Regs	Lesson 1
(E) adhere to copyright and trademark intellectual property laws and regulations, including demonstrating correct acquisition and citation of sources;	Web Development 1b	Unit 6: Web Regs	Lessons 1-3
(F) discuss the process of acquiring rights to use copyrighted and trademarked content in a website;	Web Development 1b	Unit 6: Web Regs	Lesson 1
(G) demonstrate appropriate behavior and adherence to acceptable use policies when accessing and using online resources;	Web Development 1b	Unit 6: Web Regs	Lesson 2
(H) explain the importance of information privacy such as securing credit card information, passwords, and personal information;	Web Development 1b	Unit 6: Web Regs	Lesson 4
(I) describe the function of a non-disclosure agreement; and	Web Development 1b	Unit 6: Web Regs	Lesson 4
(J) discuss website accessibility concerns.	Web Development 1b	Unit 6: Web Regs	Lesson 3
<b>(5) The student evaluates electronic information.</b>			
(A) identify appropriate methods to analyze the design and functionality of web pages;	Web Development 1b	Unit 3: Web Maintenance and Performance	Lesson 1
(B) demonstrate skill in testing the accuracy and validity of information acquired; and	Web Development 1b	Unit 3: Web Maintenance and Performance	Lessons 2, 3
(C) synthesize information from data acquired from online resources.	Web Development 1b	Unit 3: Web Maintenance and Performance	Lab

<b>(6) The student creates and modifies web and digital media designs.</b>			
(A) implement functional design elements such as proximity, repetition, contrast, alignment, color theory, consistency, image file size, and typography;	Web Development 1b	Unit 1: Beautiful Web Design	Lessons 1, 2
(B) identify, create, modify, and use common file formats such as text, image, video analog and digital, and audio files;	Web Development 1a	Unit 7: Organizing Web Files	Lesson 2
(C) select, create, modify, and integrate effective digital content such as vector-based and raster graphics, motion graphics, video, and audio;	Web Development 1b	Unit 2: Files, Formats and Media	Lesson 1
(D) create web pages using current web standards and web development skills such as version control, documentation, web application security, validation, accessibility, and compatibility across multiple browsers and devices;	Web Development 1b	Unit 2: Files, Formats and Media	Activity 2
(E) demonstrate proper use of folder structure hierarchy; and	Web Development 1a: Introduction	Unit 7: Organizing Web Files	Lesson 1
(F) use web coding standards to evaluate the design and functionality of web pages such as the World Wide Web Consortium (W3C) guidelines.	Web Development 1b	Unit 6: Web Regs	Lesson 3
<b>(7) The student demonstrates and employs knowledge of Internet programming strategies to develop and maintain web applications.</b>			
(A) explain the importance of Internet programming standards;	Web Development 1a	Unit 2: Introduction to HTML	Lessons 1, 4
(B) differentiate among various web coding standards such as Hypertext Markup Language, and cascading style sheets;	Web Development 1a	Unit 2: Introduction to HTML	Lesson 1
(C) use standard applications to develop web applications such as text-based editing programs, word processors, and web authoring software;	Web Development 1a	Unit 8: Web Project Workflow	Lesson 2, Activity
(D) compare and contrast the impact of different browsers on web development;	Web Development 1a	Unit 5: Serving Up the Web	Lesson 4
(E) explain client-server applications and describe the process of a client-server transaction;	Web Development 1a	Unit 5: Serving Up the Web	Lesson 1
(F) identify the advantages and disadvantages of client-side processing;	Web Development 1a	Unit 5: Serving Up the Web	Lesson 1
(G) identify security issues related to client-side processing;	Web Development 1a	Unit 4: Introduction to JavaScript	Lessons 1-4
(H) use standard scripting languages to produce interactive web applications;	Web Development 1a	Unit 1: Introduction to Web Development	Lesson 1
(I) identify characteristics of various scripting languages; and	Web Development 1a	Unit 1: Introduction to Web Development	Lesson 3
(J) explain the process to construct secure transaction interfaces from the web server to the customer.	Web Development 1a	Unit 5: Web Development Platforms	Lesson 1
<b>(8) The student employs knowledge of web administration to develop and maintain web applications.</b>			

(A) compare the advantages and disadvantages of running a personal server versus using a server provider;	Web Development 1a	Unit 5: Serving Up the Web	Lesson 1
(B) explain the Transmission Control Protocol/Internet Protocol;	Web Development 1b	Unit 5: Web Security	Lesson 3
(C) identify hardware and software requirements for web servers;	Web Development 1a	Unit 5: Serving Up the Web	Lesson 1
(D) evaluate server providers;	Web Development 1a	Unit 5: Serving Up the Web	Lesson 4
(E) describe the process of establishing a domain name;	Web Development 1a	Unit 5: Serving Up the Web	Lesson 3
(F) simulate the administration of web servers, including uploading and managing files;	Web Development 1a	Unit 7: Organizing Web Files	Lesson 3
(G) collect and analyze usage statistics;	Web Development 1b	Unit 3: Web Maintenance and Performance	Lesson 1
(H) maintain documentation of the server environment such as specifications, passwords, and software versions;	Web Development 1a	Unit 4: Introduction to JavaScript	Lessons 1-4
(I) summarize the process of server backup and restoration of software features;	Web Development 1a	Unit 4: Introduction to JavaScript	Lessons 1-4
(J) propose security measures to protect web servers from electronic threats such as unauthorized access and negative intentions; and	Web Development 1a	Unit 4: Introduction to JavaScript	Lessons 1-4
(K) evaluate security measures such as using a firewall, Secure Socket Layer (SSL) connections, and Hypertext Transfer Protocol Secure (HTTPS) transactions.	Web Development 1a	Unit 4: Introduction to JavaScript	Lessons 1-4
<b>(9) The student evaluates a problem and creates a project management plan for meeting client requirements.</b>			
(A) communicate with clients to analyze requirements to meet the needs of the client and target audience;	Web Development 1a	Unit 6: User-Centered Planning and Project Management	Lesson 2
(B) document design properties, necessary tools, and resources and identify and address risks;	Web Development 1a	Unit 6: User-Centered Planning and Project Management	Lesson 2
(C) develop and use a timeline task list such as critical milestones, potential challenges, and interdependencies; and	Web Development 1a	Unit 6: User-Centered Planning and Project Management	Lesson 2
(D) use various methods to evaluate the progress of the plan and modify as necessary.	Web Development 1a	Unit 6: User-Centered Planning and Project Management	Lesson 2
<b>(10) The student creates and implements a web product using a project management plan.</b>			
(A) create and simulate the publication of a multipage web product using client required content and web design concepts;	Web Development 1b	Unit 3: Web Maintenance and Performance	Lessons 1-4
(B) develop a test plan for a multipage web product for testing usability, effectiveness, reliability, and customer acceptance;	Web Development 1b	Unit 3: Web Maintenance and Performance	Lessons 1-4

(C) explain the quality assurance process; and	Web Development 1b	Unit 3: Web Maintenance and Performance	Lessons 1-4
(D) develop and implement a quality assurance plan	Web Development 1b	Unit 3: Web Maintenance and Performance	Lessons 1-4