

Wyoming Department of Education Required Virtual Education Course Syllabus

BIG HORN COUNTY SCHOOL DISTRICT #1

Program Name	WYCA	Content Area	Vocational Education
Course ID	CA078135	Grade Level	9, 10, 11, 12
Course Name	Web Design I A	# of Credits	0.5
SCED Code	1020160.5012	Curriculum Type	Connections Academy

COURSE DESCRIPTION

The Web Design A course has 40 lessons. The student is introduced to website design and development by learning the basic website design principles. Topics include networking, audience analysis, internet security, project management, and website navigation. Students will apply the principles to design and evaluate their own websites and the sites of others. Students will learn development languages such HTML and CSS. Throughout the course, students will complete practice activities, homework assignments and projects that allow them to apply the skills they have learned.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK
CV12.1.1	College and career-ready students evaluate current knowledge and interests in order to set career goals.
CV12.1.2	College and career-ready students explore careers including outlook, salary, needed training, duties and lifestyle utilizing all available resources including mentors and industry experts.
CV12.1.3	College and career-ready students prepare an educational and career plan to enable them to gain desired knowledge and experience.
CV12.1.4	College and career-ready students demonstrate employability skills that enable them to be responsible and contributing citizens and employees.
CV12.2.1	College and career-ready students communicate clearly, effectively, and with reason.
CV12.2.2	College and career-ready students identify and model integrity, ethical leadership and effective management skills.
CV12.2.4	College and career-ready students apply safe, legal, and responsible use of information and technology as appropriate to the task.
CV12.3.2	College and career-ready students identify trends, forecast possibilities, and explore complex systems and issues.
CV12.4.1	College and career-ready students produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (*CCSS W.11.4)
CV12.4.2	College and career-ready students determine the meaning of symbols, key terms, and other content-specific words and phrases as they are used in technical context. (*Adapted from CCSS RL.9.11)
CV12.4.3	College and career-ready students acquire, manipulate, analyze, diagnose, and/or report information, using the appropriate technology.
CV12.4.4	College and career-ready students precisely follow a complex multistep procedure when performing technical tasks. (*Adapted from CCSS RI.9.3)
CV12.5.1	College and career-ready students manage resources to develop, analyze, and implement systems and applications.
CV12.5.2	College and career-ready students productively complete tasks taking constraints, priorities and resources into account.
CV12.5.3	College and career-ready students safely and ethically use current industry-standard tools and emerging technologies.
CV12.5.4	College and career-ready students utilize technology to develop innovative solutions or products.

SCOPE AND SEQUENCE

UNIT OUTLINE	STANDARD#	OUTCOMES
<p>Unit 1: Introduction to Computing and Networking In order to understand the fundamentals of website development, it is important for you to have some foundational knowledge about personal computers, networking, and the Internet. In the first part of the unit, you will learn how to identify the main components of a personal computer and learn about wired and wireless networking. The information presented in this module begins by providing this information.</p>	<p>CV12.2.1, CV12.2.4, CV12.3.2, CV12.4.1, CV12.4.2, CV12.4.3, CV12.4.4, CV12.5.2, CV12.5.3, CV12.5.4</p>	<ul style="list-style-type: none"> • analyze how virtualization works for operating systems • compare and contrast network topologies • compare, evaluate, and implement the use of wired versus wireless access • conceptualize an idea for a futuristic technology based on current technical trends • define virtualization • demonstrate proficiency in and appropriate use and navigation of local area networks (LANs) • demonstrate proper digital etiquette and knowledge of acceptable-use policies • describe open/closed source file formats • discuss ideas for a futuristic technology based on current technical trends • evaluate advantages and disadvantages of open/closed source file formats and software • evaluate and determine the appropriate use of open/closed source file formats and software • evaluate the advantages and disadvantages of open/closed source file formats • explain the concept of virtualization for classrooms • explain the concept of virtualization for operating systems • identify operating systems and software applications used for website development • identify the different types of software licensing for web development • identify the four main types of network topologies • identify the parts of a computer and explain its functions implement a variety of security tools and techniques to protect your computer and your personal information • investigate, choose, and implement electronic security methods to protect your files, personal information, and a web server from unauthorized access • optimize web information for fast download such as dial-up and high speed Internet and mobile devices • use guidelines to identify the authority, validity and currency of a website
<p>Unit 2: The Internet, Websites, and Digital Communications Now that you have learned about basic computers and networking, it is time to explore concepts related to the Internet using a web browser and advanced search techniques. As you work through the activities and practice exercises, you will learn about different types of websites, such as social networking sites and blogs. Several lessons provide examples of how to protect yourself while surfing the Internet and what to do if you are a victim of identity theft. After you learn about Internet security, you will have a chance to discuss issues related to cyberbullying. At the end of the module, you will practice selecting a domain name, compare and contrast web-hosting providers, and learn how to protect a web server.</p>	<p>CV12.2.1, CV12.2.2, CV12.2.4, CV12.3.2, CV12.4.1, CV12.4.2, CV12.4.3, CV12.4.4, CV12.5.2, CV12.5.3, CV12.5.4</p>	<ul style="list-style-type: none"> • Analyze and implement the proper and acceptable use of digital, or virtual, communications technologies • Analyze, examine, assess, and decide on a web host and a domain name • Compare dynamic websites to static websites • Conduct appropriate advanced search strategies in the acquisition of information from the Internet • Define and describe dynamic and static websites • Differentiate between the Internet and the World Wide Web • Identify the various parts of a URL • Investigate, choose, and implement electronic security methods to protect your files, personal information, and a web server from unauthorized access • Recognize the negative impact of inappropriate technology use on different kinds of websites that may lead to online bullying and harassment • Use guidelines to identify the authority, validity, and currency of a website • Use the basic functions on an Internet browser
<p>Unit 3: Website Planning and Design There is more to creating a website than just writing HTML code and uploading files. A good website must be designed before it is created in order to be effective. It is too easy to jump right into building a website without putting thought into how the site will be structured, both visually and architecturally. This unit introduces you to basic project management concepts and provides a project-tracking sheet to help you manage your time. Designing a website in advance is key to its success. This module will introduce you to basic website design principles. You can use these to design and evaluate both your own sites and sites built by others. The module will also cover concepts such as site architecture, navigation, and storyboarding.</p>	<p>CV12.1.1, CV12.1.2, CV12.1.3, CV12.1.4, CV12.1.4, CV12.2.1, CV12.2.4, CV12.3.2, CV12.4.1, CV12.4.2, CV12.4.3, CV12.4.4, CV12.5.2, CV12.5.3</p>	<ul style="list-style-type: none"> • Identify the four stages of website development • Describe some considerations designers have when developing interfaces • Read, use, and develop technical documents • Utilize a project management checklist to evaluate and apply the principles of project management • Evaluate job duties, group dynamics, and communication for a website design project • Evaluate the accessibility and usability of an original website as it relates to a target audience • Analyze and follow timelines needed to create, edit, and present original work • Explain why audience analysis is important in website design • Describe everything you must consider in an audience analysis • Describe and discuss the various types of navigational structures used on websites • Evaluate effective design guidelines for reliable websites • Describe the seven main considerations to keep in mind when designing a website

<p>Unit 4: Basic HTML and Cascading Style Sheets</p> <p>Once a website has been designed and planned out, development of the site can begin. The development of a website starts with HTML code. Though several other types of languages—such as JavaScript, CSS, and PHP—are used to create websites, HTML is the building block on which all sites are based. This module introduces the basics of HTML code.</p>	<p>CV12.1.4, CV12.2.1, CV12.2.4, CV12.3.2, CV12.4.1, CV12.4.2, CV12.4.3, CV12.4.4, CV12.5.2, CV12.5.3, CV12.5.4</p>	<ul style="list-style-type: none"> • create a simple web page using basic HTML code • open and edit an HTML document • explain why formatting, capitalization, and spacing are important when writing HTML • describe concerns about HTML formatting • identify the three main tags that identify an HTML page • identify the most common HTML tags and how they are written • explain what attributes are in HTML • use attributes to define specific characteristics of various elements on an HTML page • create ordered and unordered lists using HTML • use HTML code to create an ordered list that starts with a specific number other than the number 1 • use HTML code to create unordered lists that use a variety of bullet types • create a simple table using HTML • use attributes to define specific table characteristics in HTML • create space, signs, and symbols in HTML using entities • format an HTML page using CSS • create file and folder naming conventions to follow established guidelines, including spacing and special characters • define virtual private networking (VPN) • describe how a VPN connection can be used to store website files • describe the benefits of using a VPN connection for website design • identify how a VPN client connects to the server
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