

EL DORADO UNION HIGH SCHOOL DISTRICT
Educational Services

Course of Study Information Page

Course Title: Web Page Authoring and Creation (Course #468)	
Rationale: A continuum of courses, including advanced classes in computer technology is needed. At Union Mine High School, the 4x4 schedule creates an immediate need for additional elective options. This course provides the opportunity for students to increase their web page creation and authoring skills through a yearlong (one term) course. In addition, this course offers students the opportunity to explore web page creation and authoring as a possible career option.	
Course Description: This course takes students beyond the fundamentals of web page authoring introduced in previous computer technology courses. Students will work with a variety of HTML editors and supporting applications to learn how to create professional quality publications that are ready for the web. An emphasis will also be placed on certification and career opportunities.	
Length of Course:	Year
Grade Level:	10-12; UMHS 9-12
Credit: 10 units/year <input type="checkbox"/> Meets graduation requirements <input type="checkbox"/> Request for UC "a-f" requirements <input type="checkbox"/> College Prep <input checked="" type="checkbox"/> Elective <input type="checkbox"/> Vocational	
Prerequisites:	Computer Technology
Department(s):	Business
District Sites:	All sites
Board of Trustees Adoption Date:	2-8-00
Textbook(s)/Instructional Materials:	<i>Introductory Concepts and Techniques</i> Author: Edition: Copyright date:
Date Adopted by the Board of Trustees:	5-23-00

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STANDARDS

The currently adopted District Technology Standards support this course (see El Dorado County Technology Competencies - Grades 9-12). In addition, the National Technology Standards due on December 1, 1999, from ISTE also support this type of course (see Foundation Standards 3, 4, and 5). Further, the District's Strategic Plan supports the integration of School-to-Career components within courses of study (see Focus Group - School-to-Career). Finally, most colleges and universities support substantial preparation in the area of computer technology for their entering students.

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Web Page Authoring and Creation

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UNIT #1: Introduction to the World Wide Web

GOAL: Students will be introduced to the basic concepts that make up the parts of the web.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Explore the varied aspects of the World Wide Web.	Using Internet resources and print media, students will search for definitions of the various aspects of the web and current articles discussing the topic and include a summary of their findings in an interactive notebook.
Understanding key terminology.	Students will create and regularly update an interactive notebook of terms related to the World Wide Web.
Compare and contrast the features of various search engines and directories.	Students will create a retrieval chart that compares and contrasts the features of various search engines and directories.
Explore the history of the Internet and HTML.	

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UNIT #2: Introduction to the Web Page Authoring and the Creation of a Simple Project

GOAL: Students will be introduced to the process of creating a web page.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Explore the types of software applications—WYSIWYG and text editors—used in web page authoring, including professional applications as well as freeware and shareware.	Using Internet resources and several web page authoring applications, students will determine the category and primary use for each application and record their findings to share with the class during a discussion.
Create a basic web page.	Students will create a basic text-only web page using WYSIWYG applications and a text editor.
Explore formatting text.	Students will explore the options for text format and modify their WYSIWYG document as well as their text editor document using the appropriate HTML codes.
Explore adding color.	Students will explore the options for color and modify their WYSIWYG document as well as their text editor document using the appropriate HTML codes.
Explore creating links, including e-mail and targets.	Students will explore the options for adding links, including e-mail and targets, and modify their WYSIWYG document as well as their text editor document using the appropriate HTML codes.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will: Explore adding, modifying, and editing graphics.	Students will explore the options for adding, modifying, and editing graphics and modify their WYSIWYG document as well as their text editor document using the appropriate HTML codes.
Explore the process for adding, modifying, and editing a table.	Students will explore the options for adding, modifying, and editing a table and modify their WYSIWYG document as well as their text editor document using the appropriate HTML codes.
Explore the process of adding frames.	Students will explore the process of adding frames to their WYSIWYG document as well as their text editor document using the appropriate HTML codes.

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UNIT #3: Introduction to the File Hierarchy and Domain Name Service as it relates to Web Site Construction

GOAL: Students will be introduced to the organizational requirements of web sites.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Explore the organizational hierarchy of web sites.	Using Internet resources, students will determine the file hierarchy of a selected web site and record their findings to share with the class during a discussion. Students will create a visual representation of their personal web site that details the file hierarchy.
Explore the naming conventions for files.	Students will list the files of a web site and describe the naming conventions used as well as the meaning of the three letter file extensions.
Explore formatting text.	Students will explore the options for text format and modify their WYSIWYG document as well as their text editor document using the appropriate HTML codes.
Explore saving and titling web pages.	Students will explore the options for saving and titling web pages.
Explore how browsers locate files on the World Wide Web.	Students will explore the impact of titles and metatags for search engines and directories and revise their web page to increase its chances of retrieval.

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the role of web servers on the World Wide Web.</p>	<p>Students will explore the options for establishing web servers and create an annotated resource list.</p> <p>Students will explore the commercial options available for web hosting, the cost, and requirements.</p> <p>Students will explore the process of obtaining a domain name and write a summary describing the process.</p>

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UNIT #4: Introduction to Design Issues for the Creation of Web Pages and Sites

GOAL: Students will be introduced to design principles for web pages and sites.

OBJECTIVES	SUGGESTED ACTIVITIES
The student will:	
Explore the difference between print and web media creation.	Students will read <i>Print vs. Web and How It Affects Design</i> and detail the advantages and disadvantages to both media in their interactive notebook.
Explore basic design principles for non-designers.	Using Internet resources, students will locate web pages that illustrate the four principles of web page design: alignment, proximity, repetition, and contrast. Students will revise a web page so it meets the design principles of alignment, proximity, repetition, and contrast.
Explore the affects of interface and navigation on web page design.	Students will explore the differences between browser interfaces and detail their findings in a retrieval chart. Students will explore the impact of hardware on web page viewing. Using Internet resources, students will locate a shareware or freeware screen ruler and measure their web page.

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the various types and styles of navigation for web pages.</p>	<p>Using Internet resources, students will explore various navigational techniques and their impact on web site design.</p> <p>Using Internet resources, students will create a retrieval chart that details the various navigational types and styles.</p>
<p>Recognize good and bad design in web pages and sites.</p>	<p>Using Internet resources, students will create a list of the ten best web sites and the ten worst web sites and detail their reasoning for each selection.</p>
<p>Design a web site.</p>	<p>Students will create a visual representation of a design for a web site on a topic of their choice that includes the design features of a quality web site.</p>

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UNIT #5: Introduction to Color, Graphics, and Type Issues for the Creation of Web Pages and Sites

GOAL: Students will be introduced to the impact of color, graphics, and type for web pages and sites.

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the difference between print and web media color.</p>	<p>Students will read <i>Color on the World Wide Web</i> and detail the impact of the technology on color in their interactive notebook.</p> <p>Students will locate the control panel on their computer that controls the pixel settings for their computer and experiment with changing the values.</p> <p>Using Internet resources, students will find and locate web sites that provide a browser-safe color swatch.</p> <p>Using Internet resources, students will find and locate a chart with the RGB values for web safe colors.</p> <p>Using Internet resources, students will locate a color wheel or color picker that displays the hexadecimal code for colors.</p>

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the difference between print and web graphics.</p>	<p>Students will read <i>Graphic Definitions You Must Know</i> and detail the impact of the technology on graphics in their interactive notebook.</p> <p>Students will change their monitor settings to experience the impact of dithering on graphics.</p> <p>Using Internet resources, students will find examples of the various graphic file types and create a simple annotated web page detailing their findings.</p> <p>Students will turn off the graphics in their browser and list the alternative labels that are displayed.</p>
<p>Explore the techniques for preparing image files for the web.</p>	<p>Students will read <i>How to Prepare Image Files for the Web</i> and write a summary for their interactive notebook.</p> <p>Using Internet resources, students will locate images on the web and display their properties.</p> <p>Using Internet resources, students will find and locate clip art collections on the web and create a simple web page resource list.</p> <p>Using Internet resources, students will create a retrieval chart that details the professional software applications as well as freeware and shareware applications that manipulate graphics and list the features of each.</p> <p>Using scanners, digital cameras, and video cameras, students will create several types of image files usable on the web.</p>

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the options for type on the web.</p>	<p>Students will read <i>Typography on the Web</i> and summarize their findings in their interactive notebook.</p> <p>Using Internet resources, students will find and locate web pages and sites that demonstrate appropriate use of type and create a simple web page listing the sites.</p> <p>Students will change the resolution on their monitor and notice the impact on the type of the web page.</p>
<p>Design a web site.</p>	<p>Students will add color, graphics, and type to their web site that meet the requirements of good design.</p>

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UNIT #6: Introduction to Advanced Techniques for the Creation of Web Pages and Sites

GOAL: Students will be introduced to streaming audio and video, VRML, Java applets, JavaScript, CGI Scripting, and Dynamic HTML for web pages and sites.

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the impact of streaming audio and video on web page creation.</p>	<p>Using Internet resources, students will find and locate web pages using streaming audio and video and detail their findings in their interactive notebook.</p> <p>Using Internet resources, students will find and locate resources for streaming audio and video and create a simple annotated web page list.</p> <p>Students will incorporate streaming audio and video as is appropriate on their web sites.</p>
<p>Explore the impact of VRML on web page creation.</p>	<p>Using Internet resources, students will find and locate web pages using VRML and detail their findings in their interactive notebook.</p> <p>Students will experiment with the VRML context menu and record the ways it reconfigures the navigation environment in their interactive notebook.</p> <p>Students will incorporate VRML in their personal web sites as is appropriate.</p>

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the impact of Java applets on web page creation.</p>	<p>Using Internet resources, students will find and locate web pages using Java applets and detail their findings in their interactive notebook.</p> <p>Students will locate resources for java applets on the Internet and create a simple annotated web page resource list.</p> <p>Students will incorporate java applets in their personal web sites as is appropriate.</p>
<p>Explore the impact of JavaScripts on web page creation.</p>	<p>Using Internet resources, students will find and locate web pages using JavaScript and detail their findings in their interactive notebook.</p> <p>Students will display the source code for a JavaScript web page and determine how it is embedded in the HTML script.</p> <p>Using Internet resources, students will locate JavaScripting authoring guides and create a simple annotated web page resource list.</p> <p>Students will incorporate JavaScripts in their personal web sites as is appropriate.</p>

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the impact of CGI scripts on web page creation.</p>	<p>Using Internet resources, students will locate web pages employing CGI scripts and detail their findings in their interactive notebook.</p> <p>Students will display the source code for a CGI script web page and determine how it is embedded in the HTML script.</p> <p>Using Internet resources, students will find CGI script authoring web sites and explore the tutorials.</p> <p>Students will find and locate web pages employing CGI scripts and create a simple annotated web page listing the resources.</p> <p>Students will create simple CGI scripts asking for a web site's visitor's name.</p> <p>Students will find and locate CGI scripts that are appropriate for their web sites and incorporate them into the site.</p>

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the impact of Dynamic HTML on web page creation.</p>	<p>Using Internet resources, students will locate web pages employing Dynamic HTML and detail their findings in their interactive notebook.</p> <p>Using Internet resources, students will view Dynamic HTML web pages using several browsers and detail the differences in a retrieval chart.</p> <p>Using Internet resources, students will find and locate examples of cascading style sheets, object positioning, and layout controls, and create a simple annotated web page detailing their findings.</p> <p>Students will find and locate Dynamic HTML code and tags that are appropriate for their web sites and incorporate them into the site.</p>
<p>Design a web site.</p>	<p>Students will add color, graphics, type, and any other enhancements to their web site that meet the requirements of good design.</p>

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UNIT #7: Introduction to Web Page Authoring and Creation Career Opportunities

GOAL: Students will be introduced to career opportunities in the web page authoring and creation field.

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the types of employment opportunities in the web page authoring and creation field.</p>	<p>Using Internet resources and print media, students will determine the types of jobs and their descriptions available in the web page authoring and creation field.</p> <p>Using Internet resources and print media, students will determine the outlook for careers in the web page authoring and creation field.</p> <p>Students will visit a local web page authoring and creation concern and interview an employee whose primary job is in the web page authoring and creation field.</p>
<p>Explore the option of self-employment in the web page authoring and creation field.</p>	<p>Students will explore the process of choosing a name and registering their business.</p> <p>Students will explore the financial requirements for establishing a desktop publishing business, including income and sales tax requirements.</p> <p>Using Internet resources, students will explore the options for finding and working with clients and create an annotated resource list for a web page authoring and creation business.</p>

OBJECTIVES	SUGGESTED ACTIVITIES
<p>The student will:</p> <p>Explore the opportunities for training and certification in the web page authoring and creation field.</p>	<p>Using Internet resources and print media, students will explore the opportunities for training in the web page authoring and creation field and generate a list of educational resources, including distance learning and online resources.</p> <p>Using Internet and print media resources, students will determine the certification options and process for certification for the web page authoring and creation field and generate an annotated resource list.</p>