

# Advanced Web Design

## COURSE OUTLINE

1. **Course Title:**     **Advanced Web Design**
2. **CBEDS Title:**    **Other visual communications/graphics course**
3. **CBEDS Number:** **5798**
4. **Job Titles:**
  - Web Design Technicians
  - Desktop Publishers
  - Web Designers

- 5. Course Description:** This program is designed for students interested in developing advanced Web page design skills. Student will work both independently and as a class through units of instruction in order to develop a variety of Web design skills. Students will be expected to produce work and conduct themselves in a businesslike manner, work with a minimum of supervision, and complete units of work as selected and assigned.

Students will be expected to use word-processing, spreadsheet, database, desktop publishing, and graphic software skills in order to successfully work in Web design applications. Throughout this course, students will use “Web 2.0” technologies for adding interactivity to their projects in the form of content management systems, blogs, and podcasts, and to participate in the course, to turn in assignments, and to collaborate with other students. This course is not intended for the beginning computer user.

### Student Outcomes and Objectives:

Working in a networked environment under Windows the students will be introduced to the following as they relate to Web Page Design: Layout; Color Theory; Typography; Information Architecture; HTML; HTML Editor Software; Image Editing Software; Digital Cameras and Scanners; Career Search Skills

In addition to the above, students will be able to:

1. Demonstrate advanced skills in Web Page Layout & Software incorporating the following:
  - Color Theory; Typography; Information Architecture; HTML; Dreamweaver; Fireworks; Flash
2. Effectively use Digital Cameras and Scanners
3. Operate and take advantage of the R-3 Network
4. Demonstrate advanced Information Design for the World Wide Web
5. Utilize Vector and Raster Graphics in Web Page design
6. Effectively use HTML Editing Software
7. Complete Complex Page Design with HTML Editing Software
8. Add Interactive Elements in HTML Editing Software
9. Apply Cascading Stylesheets in HTML Editing Software
10. Demonstrate appropriate use of DHTML and Timelines in HTML Editing Software
11. Perform effective Site Management in HTML Editing Software
12. Apply Design Concepts such as Color and Typography for the World Wide Web
13. Add Graphical Pizzazz with Image Editing Software

*Italicized refers to negotiated curriculum versus guaranteed curriculum.*

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14. Effectively Export and Optimize Images in Image Editing Software
15. Create Animations in Image Editing Software
16. Build Interactivity into Fireworks PNGs
17. Demonstrate Advanced Graphical Interface Design in Image Editing Software
18. Work with Masks
19. Create Vector Animations Using Macromedia Flash

### **Pathway**

<b>Recommended Sequence</b>	<b>Courses</b>
<b>Introductory</b>	Introduction to Computers
<b>Skill Building</b>	Beginning Web Page Design
<b>Advanced Skill</b>	<b>Advanced Web Page Design</b>

**6. Hours:** *Students receive up to 180 hours of classroom instruction*

**7. Prerequisites:** Introduction to Computers

**8. Date (of creation/revision):** July 2010

## 9. Course Outline

COURSE OUTLINE				
Upon successful completion of this course, students will be able to demonstrate the following skills necessary for entry-level employment.				
Instructional Units and Competencies	Course Hours	Model Curr. Standards	CA Academic Content Standards	CAHSEE
<b>I. CAREER PREPARATION</b> <b>A. Career Planning and Management.</b> 1. Know the personal qualifications, interests, aptitudes, knowledge, and skills necessary to succeed in careers. a. Students will identify skills needed for job success b. Students will identify the education and experience required for moving along a career ladder. 2. Understand the scope of career opportunities and know the requirements for education, training, and licensure. a. Students will describe how to find a job. b. Students will select two jobs in the field and map out a timeline for completing education and/or licensing requirements. 3. Know the main strategies for self-promotion in the hiring process, such as completing job applications, resume writing, interviewing skills, and preparing a portfolio. a. Students will write and use word processing software to create a resume, cover letters, thank you letters, and job applications. b. Students will participate in mock job interviews. 4. <i>Develop a career plan that is designed to reflect career interests, pathways, and postsecondary options.</i> a. <i>Students will conduct a self—assessment and explain how professional qualifications affect career choices.</i> 5. <i>Understand the role and function of professional organizations, industry associations, and organized labor in a productive society.</i> a. <i>Contact two professional organization and identify the steps to become a member.</i> 6. <i>Understand the past, present and future trends that affect careers, such as technological developments and societal trends, and the resulting need for lifelong learning.</i> a. <i>Students will describe careers in the business industry sector.</i> b. <i>Students will identify work-related cultural differences to prepare for a global workplace.</i> <b>B. Technology.</b> 1. Understand past, present and future technological advances as they relate to a chosen pathway and on selected segments of the economy. 2. Understand the use of technological resources to gain access to, manipulate, and produce information, products and services. 3. Use appropriate technology in the chosen career pathway. <b>C. Problem solving and Critical Thinking.</b> 1. Understand the systematic problem-solving models that incorporate input, process, outcome and feedback components, and apply appropriate problem-solving strategies and critical thinking to work-related issues and	20  Additional hours are integrated throughout the course.	Information Technology Industry Sector  Foundation Standards:  Reading 2.0 (2.6) Writing 2.2 (2.5, 2.6)  Career Planning & Mgmt. 3.1, 3.2, 3.3, 3.4, 3.5,3.6, 3.7  Technology 4.1, 4.2 4.3, 4.4, 4.5, 4.6	<u>Language Arts</u> (8) R 1.3, 2.6 W1.3, 2.5. LC 1.4,1.5 1.6 LS1.2, 1.3, (9/10) R2.1,2.3,2 W2.5 LC1.4 LS 1.1, 2.3 (11/12) R2.3 W2.5 LC1.2 <u>Math</u> (7) NS1.2, 1.7 MR 1.1,1.3 2.7,2.8, 3.1	<b>Lang. Arts R 8.2.1 (9/10) R 2.1, 2.3 W2.5 Math (7) NS 1.2, 1.3, 1.7 MR 1.1, 2.1, 3.1</b>

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<p>tasks.</p> <ol style="list-style-type: none"> <li>2. Use and apply critical thinking and decision making skills to make informed decisions, solve problems, and achieve balance in the multiple roles of personal, home, work and community life.</li> </ol> <p>D. Health and Safety.</p> <ol style="list-style-type: none"> <li>1. Know policies, procedures, and regulations regarding health and safety in the workplace, including employers' and employees' responsibilities.</li> <li>2. Understand critical elements of health and safety practices related to a variety of business environments.</li> </ol> <p>E. Responsibility &amp; Flexibility.</p> <ol style="list-style-type: none"> <li>1. Understand the qualities and behaviors that constitute a positive and professional work demeanor.</li> <li>2. Understand the importance of accountability and responsibility in fulfilling personal, community, and work-place roles and how individual actions can affect the larger community.</li> <li>3. Understand the need to adapt to varied roles and responsibilities.</li> </ol> <p>F. Ethics and Legal Responsibilities</p> <ol style="list-style-type: none"> <li>1. Know the major local, district, state, and federal regulatory agencies and entities that affect the industry and how they enforce laws and regulations.</li> <li>2. Understand the concept and application of ethical and legal behavior consistent with workplace standards. <ol style="list-style-type: none"> <li>a. <i>Contact a business and obtain a copy of their rules for employment.</i></li> <li>b. <i>Role play difference ethical scenarios.</i></li> </ol> </li> <li>3. Understand the role of personal integrity and ethical behavior in the workplace.</li> </ol> <p>G. Leadership and Teamwork.</p> <ol style="list-style-type: none"> <li>1. Understand the characteristics and benefits of teamwork, leadership, citizenship in the school, community, and workplace settings for effective performance and attainment of goals.</li> <li>2. Understand the ways in which professional associations, such as Int'l Webmasters Assn. (IWA) and competitive activities enhance academic skills, career choices, and contribute to promote employability.</li> <li>4. Know multiple approaches to personal conflict resolution and understand how to interact with others in ways that demonstrate respect for individual and cultural differences and for the attitudes and feelings of others.</li> </ol>				
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Instructional Units and Competencies	Hours	Model Curr. Standards.	CA Academic Standards	CAHSEE
<b>A Basic Introduction to Windows/MAC in a Networked Environment</b> 1. Procedures employed in Computer Lab 2. Use of the Computer lab a. Login b. Accessing (and SAVING to) the student directories c. Accessing files from the <b>Data</b> drive d. Printer Selection and Options 3. Solicitation of Guidelines; what people want to make Assignment of Passwords	5	Information Technology Industry Sector Media Support & Services Pathway 4.1		
<b>B. Introduction to the World Wide Web</b> 1. History and Precursors 2. TCP/IP, Hypertext, Interactivity, Nonlinear Programming 3. GUI 4. Evolution of Web Page Design/Production Values: Various generations' site design 5. Web Site Development Process 6. Web Design Jobs and Roles	5	Information Technology Industry Sector 4.4  Information Services Pathway A7.5 Media Support & Services Pathway B2.2		
<b>C. Basic Image Manipulation with Image Editing Software</b> 1. Acquiring Images: Digital Camera 2. Acquiring Images: Scanner 3. Acquiring Images: Web 4. Cropping, Color Adjustment, Resolution, etc. 5. Copy Write Issues	10	Media Support & Services Pathway B1.1, 1.2	ELA 11-12; W; 1.9	
<b>D. Introduction to Hypertext Markup Language [HTML]</b> 1. What is HTML? 2. Browser differences; World Wide Web Consortium, Industry Standardization 3. Reading URLs 4. Structural Tags: html, head, body a. Students will create a simple page in notepad using the tags above, and save with the .html file extension 5. HTML Semantics: tag, attribute, value a. Students will view source and locate tags, attributes, and values b. Students will control color with hexadecimal codes and keywords using attributes and values 6. The Anchor Tag: making links	5			

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	<ul style="list-style-type: none"> <li>a. Students will use relative and absolute links</li> <li>b. Students will create a “table of contents” using anchor with the name attribute, to link to different places on the same page</li> <li>c. Students will use the anchor to create email links</li> </ul> <p>7. HTML Lists: ordered, unordered, and definition</p> <ul style="list-style-type: none"> <li>a. Students will answer questions about themselves in the appropriate list format; save as index.html in their web folder; and use course website to view each others’ work</li> </ul> <p>8. The Img Tag: optimizing images for the web</p> <ul style="list-style-type: none"> <li>a. Students will use the image tag and its attributes, width, height, alt, border</li> <li>b. Students will optimize images for the web, gif, jpg, png <ul style="list-style-type: none"> <li>i. Vocabulary: bit-depth, quality, transparency, dither, interlace/progressive</li> </ul> </li> </ul> <p>9. Other Structural HTML Tags: h1-h6; p; strong, em, blockquote, cite, hr</p> <ul style="list-style-type: none"> <li>a. Students will complete Quiz I HTML</li> </ul> <p>10. Planning a site</p> <ul style="list-style-type: none"> <li>a. Working in teams</li> <li>b. Working with clients</li> <li>c. Using the Project Planner <ul style="list-style-type: none"> <li>i. Students will complete a Site Plan project</li> </ul> </li> <li>d. Web Usability <ul style="list-style-type: none"> <li>i. Students will participate in a Mock Usability Test</li> <li>ii. Students will participate in a Mock Focus Group</li> </ul> </li> </ul>				
E	<p>Creating Web Graphics</p> <p>1. Bitmap image editing</p> <ul style="list-style-type: none"> <li>a. Students will correct common image problems</li> <li>b. Students will create raster images from scratch</li> </ul> <p>2. Vector image editing</p> <ul style="list-style-type: none"> <li>a. Students will create 3D shapes by combining standard primitives</li> <li>b. Students will use the pen tool</li> <li>c. Students will recreate a client logo as a vector graphic from a scanned image</li> <li>d. Students will create different button styles as vector graphics</li> </ul> <p>3. Color Theory: Color Harmony for the Web</p>	5	Media Support & Services Pathway B5.6		

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	<ul style="list-style-type: none"> <li>a. Students will create a styleboard for a client and use color theory to create a color palette appropriate for the target demographic</li> <li>b. Students will complete Quiz 2 Web Graphics</li> <li>c. Students will create an Interface Design Project</li> </ul>				
F	<p>More Control with HTML</p> <p>1. Frames and Framesets (deprecated)</p> <ul style="list-style-type: none"> <li>a. Frame-based navigation systems</li> <li>b. iFrames</li> <li>c. Controlling the look of Framesets with HTML attributes</li> </ul> <p>2. Tables in HTML (deprecated)</p> <ul style="list-style-type: none"> <li>a. Image splice tables <ul style="list-style-type: none"> <li>i. Students will create a web interface image and slice it up, put it back together in a seamless table with working links</li> </ul> </li> <li>b. Flexible tables <ul style="list-style-type: none"> <li>i. Students will use nested tables and background images to create flexible tables</li> <li>ii. Students will use frames and tables to organize the content they have collected for their project “Content is King” project</li> <li>iii. Students will complete Quiz 3 Web Layout and Usability</li> </ul> </li> </ul>	5	Media Support & Services Pathway B5.0, 5.1		

G	<p>Introduction to Cascading Style Sheets</p> <ol style="list-style-type: none"> <li>1. In-line, embedded, and external style sheets <ol style="list-style-type: none"> <li>a. Students will utilize three kinds of styles and show the complete code for performing the same task (i.e., make the background color of a paragraph orange) using all three possible locations for the style information</li> </ol> </li> <li>2. Topography with CSS <ol style="list-style-type: none"> <li>a. Typography on the web: web-safe font families</li> <li>b. CSS properties for working with text.</li> <li>c. Students will create styles for different structural levels of their site and include font, color, and spacing information</li> </ol> </li> <li>3. Layout with CSS <ol style="list-style-type: none"> <li>a. The Box Model</li> <li>b. Controlling margin and padding</li> <li>c. Using float to create layouts <ol style="list-style-type: none"> <li>i. Students will build a page layout with float, margin, and padding</li> </ol> </li> <li>d. Absolute and relative positioning <ol style="list-style-type: none"> <li>i. Students will build a page layout with positioned elements</li> </ol> </li> <li>e. Using classes and IDs <ol style="list-style-type: none"> <li>i. Students will create a stylesheet for a news system so that each post looks the same, but has different positioning</li> <li>ii. Students will create a new style for CSS Zen Garden</li> <li>iii. Students will complete Quiz 4 Web Design with CSS</li> <li>iv. Students will complete an online Style project</li> </ol> </li> </ol> </li> </ol>	10	Media Support & Services Pathway B5.6		
H	<p>Using a WYSIWYG HTML Editor</p> <ol style="list-style-type: none"> <li>1. Dreamweaver interface</li> <li>2. Working with images in Dreamweaver</li> <li>3. Links and layout in Dreamweaver</li> <li>4. Behaviors in Dreamweaver</li> <li>5. Working with library items</li> <li>6. Managing large sites with Dreamweaver <ol style="list-style-type: none"> <li>a. Students will edit an existing site using Dreamweaver</li> </ol> </li> </ol>	5	Media Support & Services Pathway B1.1		



I	<p>Encouraging Interactivity and Developing Social Networks</p> <ol style="list-style-type: none"> <li>1. RSS, Blogs, CMSs, Podcasts, Wikis and other ways to share <ol style="list-style-type: none"> <li>a. Students will create and comment on Forums on the course website (Moodle) and use the chat feature</li> </ol> </li> <li>2. Introduction to WordPress <ol style="list-style-type: none"> <li>a. Students will install, configure and post content</li> </ol> </li> <li>3. Editing a WordPress theme <ol style="list-style-type: none"> <li>a. Students will add their own background image to the default WordPress theme</li> <li>b. Students will use Dreamweaver and CSS to customize a WordPress theme to match their site “myBlog” project</li> </ol> </li> <li>4. Podcast Examples and Segment ideas <ol style="list-style-type: none"> <li>a. Students will use Audacity to record tagline, intro, and stringers for podcast</li> </ol> </li> <li>5. RSS publishing <ol style="list-style-type: none"> <li>a. Students will complete a Podcast project</li> </ol> </li> </ol> <p>Students will complete Quiz 5 WYSIWYG, CMS and Interactivity</p>	15	Media Support & Services Pathway B5.6		
J	<p>More Multimedia and Interactivity on the Web</p> <ol style="list-style-type: none"> <li>1. Introduction to Flash</li> <li>2. Flash Illustration tools</li> <li>3. Simple animation in Flash</li> <li>2. Adding sound to Flash</li> <li>3. Creating buttons and adding actions <ol style="list-style-type: none"> <li>a. Students will complete Quiz 6 Interactivity with Flash</li> <li>b. Students will complete an e-motion project</li> </ol> </li> </ol>	20	Media Support & Services Pathway B5.6		

10. Additional recommended/optional items

- a. Articulation: None
- b. Academic credit: None
- c. Instructional strategies:
  - Methods of Instruction:
    - a. Lecture
    - b. Audio Visual Materials
    - c. Demonstrations
    - d. Research Readings and Written Presentations
    - e. Homework Assignments
    - f. Group & Individual Activities
    - g. Discussion & Group Dynamics
    - h. Quizzes, Tests & Final Exam
    - i. Guest Speakers
    - j. Internet Exploration
- d. Instructional materials: Teacher Generated
- e. Certificates: None

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