Hazelwood School District
High Expectations For All!

Web Design

Grades 11-12

Curriculum Committee Members

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Hazelwood School District

Mission Statement

In a culture of **high expectation** and **excellence**, our students will become lifelong learners equipped with 21st Century skills for success as global citizens.

Core Value Statements

- High student achievement based on multiple measures as we prepare students to become global citizens.
- A diverse staff that is caring, culturally competent, well trained, and highly effective in their roles.
- Holding ourselves accountable for a culture of excellence with high standards in both academics and behavior.
- Maintaining fiscal responsibility of the district's assets and resources while utilizing best financial practices.
- A supportive learning environment that fosters healthy socio-emotional development for all students.
- Preparing students with global thinking and skills to make them productive in college, career, and life in the 21st century.
- Community involvement that drives high parental and community/stakeholder engagement, effective partnerships, and positive relationships with informative communication.

Goals

Goal 1 – Improve Student Achievement

Goal 2 – Differentiate and Expand Resources and Services for Students

Goal 3 – Enhance Professional Growth

Goal 4 – Maintain Fiscal Responsibility

Goal 5 – Increase Parent and Community Involvement

Curriculum Overview

Web Design

Missouri Career Education combines academics and occupational skill training to prepare students of all ages. Training programs are offered in Agriculture, Business, Health Sciences, Family and Consumer Sciences, Skilled Technical Sciences, Technology and Engineering, and Marketing and Cooperative Education. Missouri Career Education prepares Missourians for the 21st century to better serve the needs of students, parents, educators, and employers through challenging, relevant, and accountable programs. Career Clusters provide a way for schools to organize instruction and student experiences around 16 broad categories that encompass virtually all occupations from entry through professional levels. These groupings of occupations are used as an organizing tool for curriculum design, a model for guidance and instruction, and a mechanism for seamless transition from secondary education to post secondary and/or career. The career cluster of Human services meets the needs of students interested in the career fields of Family and Community Services, Early Childhood Development and Services, Counseling and Mental Health Services, Personal Care Services, and Consumer Services. (Taken from Missouri Department of Elementary and Secondary Education's website at: https://dese.mo.gov)

Social media, laptops, tablets, and smartphones have become a staple in the lifestyles of our society. Rapid technological advancement by businesses to reach global markets, greater focus on industry certifications and national skill standards, expansion of responsibilities of office workers, portability of employee skills—all these increase the need for business students in career education programs to have skills in Web design and maintenance.

The students will be able to take this knowledge from the course and apply it to various career paths. Students in this pathway are encouraged to become members of Future Business Leaders of America (FBLA) or Distributive Education Clubs of America (DECA). These are Department of Elementary and Secondary Education approved Career and Technical Student Organizations.

COURSE TITLE: Web Design

GRADE LEVEL: 11-12

CONTENT AREA: Career and Technical Education

Course Description

This course deals with the use of Web programming languages (HTML, JavaScript, etc.), graphics applications and other Web authoring tools to design, edit, launch and maintain Websites and pages. Such topics as Internet theory, web page standards, web design elements, user interfaces, special effects, navigation and emerging web technologies will be included. Computer Applications I & II and/or Introduction to Graphic Design are helpful prerequisite courses. Students may receive articulated college credit from St. Louis Community College. (Prerequisite: Computer Applications I)

Course Rationale

Skills in web design and maintenance are becoming in high demand due to rapid technological advancement by businesses to reach global markets, a greater focus on industry certification and national skill standards, and the expansion of responsibilities of office workers and portability of employee skills.

Course Scope and Sequence

Unit 1: Introductory Principles (8 class periods-90 minutes-Ongoing throughout semester)	Unit 2: HTML Coding (8 class periods-90 minutes-Ongoing throughout semester)	Unit 3: CSS Coding (8 class periods-90 minutes-Ongoing throughout semester)
Unit 4: Web Page Design/Dreamweaver (8 class periods-90 minutes-Ongoing throughout semester)	Unit 5: Multimedia and Interactivity (8 class periods-90 minutes-Ongoing throughout semester)	Unit 6: Promoting and Maintaining a Website/E-Business (8 class periods-90 minutes-Ongoing throughout semester)

Course Materials and Resources

- *New Perspectives HTML5, CSS3, and JavaScript* - 6th Edition Cengage
- *Adobe Dreamweaver CC: Classroom in a Book Series* 2018, Adobe Press
- Adobe Creative Cloud Software Package
- Adobe Education Exchange Website: https://edex.adobe.com/
- *Web Design Introductory* - 6th Edition Cengage

Unit Objectives

Unit 1

The students will be able to:
1. Describe the Internet and the World Wide Web.
2. Discuss ways to access the Internet and the web.
3. Categorize types of websites (e.g. platforms and browser relationship to the web).
4. Identify web design tools to create web pages related to web design projects.
5. Identify web design careers/self-employment and certification opportunities in web design (e.g. roles and required skills).
6. Create storyboards using the Adobe Dreamweaver software.
7. Define Web page design principles and elements in Dreamweaver.

Unit 2

The students will be able to:
1. Identify and apply HTML principles (elements, tags and attributes) to create a web page.
2. Identify image types and their extensions (e.g. gif, jpg).
3. Organize all content files into folder management.
4. Use web based resources (e.g. tutorials, online resources).

Unit 3

The students will be able to:
1. Identify and create CSS style sheets (e. g. external, internal, inline).
2. Create CSS rules to format specific HTML elements.
3. Apply text and font styles.
4. Apply contextual and attribute selectors.
5. Explore style precedence and inheritance.
6. Create web pages using Adobe Dreamweaver software.

Unit 4

The students will be able to:
1. Describe the website development planning process.
2. Identify the website's purpose and target audience.
3. Determine the website's structure.
4. Discuss the relationship between page length, content placement, usability.
5. Specify the Website's Navigation System.
6. Develop a plan to test, publish, and maintain the website.
7. Use a checklist to review your web design.
8. Evaluate websites based on design elements and principles.

Unit 5

The students will be able to:
1. Explain web page multimedia and animation issues.
2. Apply JavaScript introductory principles to web page design.

3. Discuss adding and editing web page audio and video elements.
4. Describe types of web page animation.
5. Identify ways to effectively use interactive elements.
6. Create interactive design elements (e.g., rollover, swap image, slideshow).

Unit 6
The students will be able to:
1. Describe how to publish a website to a web server.
2. Identify ways to promote a published website.
3. Discuss the importance of maintaining and evaluating a published website.
4. Create a website for an E-business.
5. Conduct usability testing.
6. Exhibit leadership skills and present E-business to potential clients.

Essential Terminology/Vocabulary

Unit 1: Blog, broadband, browsing, collaborative workspaces, content management systems, creative roles, CSS, Dreamweaver, e-commerce, HTTP, hyperlink, internet, internet chat relay, internet service provider, learning management systems, markup languages, MMOGs, MOOC, network, oversight roles, protocol, responsive web design, scripting languages, social bookmarking, social networking, technical roles, text editor, URL, video sharing, web browser, web development tolls, web template, webpage, website, wiki, wireless fidelity, World Wide Web.

Unit 2: Absolute path, attributes, description list, document type declaration, embedded content, HTML, HTML elements, HTML tags, inline images, meta data, navigation list, ordered lists, protocol, relative paths, root folder, standards mode, text editor, numbered lists, validators.

Unit 3: Absolute units, box model, browser extension, browser styles, cascade theory, class attributes, color values, contextual selectors, CSS, CSS at-rule, declaration, descendant theory, external style sheet, fonts, inheritance theory, inline style, internal style sheet, pseudo class, pseudo element, selector, specificity theory, style inheritance, typography, web font.

Unit 4: Adaptive navigation, audio, call-to-action, contextual navigation, CSS editor software, design plan, downloadable media, dynamically generated content, fixed-width page layout, flexible page layout, goals, hidden links, hierarchical website structure, image links, images, landing page, layout grids, linear/tutorial structure, mockup, navigation areas, needs assessment, objectives, page layout, primary navigation, purpose statement, site map, stock images, style, style layout, subsidiary pages, target audience, text links, usability test, user-based navigation system, value-added content, video, visual consistency, webbed website structure, wire-framing.

Unit 5: Animation frames, avatars, dashboard, field, frame rate, frame size, frames per minute, gadgets, input mask, live chat, micro-interactions, podcast, progressive downloading, reactive live chat, screencast, streaming audio, streaming video, tweening, UX-driven interactivity, virtual identities, widgets.

Unit 6: Advertisers, affiliate management network, affiliate program, banner ad, beta testing, broken link, click-through, cloud-based web servers, dedicated web server, file transfer protocol, FTP client, impressions, in-app advertising, offline promotional techniques, op-in advertising, pay-per-click, publishers, rich media ads, self-testing, server software, staging server, sync, targeted ads, virtual private server, web analytics, web hosting companies.