

Web Page Design 11 Levels C, D

District Name: Mission
District Number: 75
Developed by: Jeremy Ellis
School Name: Heritage Park Secondary School
Principal's Name: Kevin Kaardal
Board/Authority Approval Date: January 15, 2004

Board/Authority Signature:

Course Name: Web Page Design Levels C, D
Grade Level of Course: 11
Number of Course Credits: 2
Number of Hours of Instruction: 60

Prerequisite(s): None

Special Training, Facilities of Equipment Required: Class set of computers, digital camera(s), editing software (suggest flash), web browser software (suggest IE 6 or greater). Teacher will need experience in using digital cameras, web page design using HTML, web page programming using JavaScript and CGI style programming such as: CGI, PERL, PHP or asp (suggest PHP) and experience with editing software.

Course Synopsis: This course focuses on scripting, programming, developing search strategies for new technology, publishing skills, and serving information on a web server. In addition, the topic of Web ethics will be covered. Students will act as Webmasters for themselves, the class, school, or district, participating in a global community of learners and collaborators. Students enrolled in this course will be computer literate and acquire basic electronic productivity tools.

Rationale: This course has been developed to support and encourage students to explore the richness and diversity of various cultures through the medium of web page design. Students will learn to use digital cameras as recording tools, and computers as editing tools. They will explore curricula themes, develop project proposals, and research topics of community value or personal interest. They will write advanced web pages and edit data to produce finished web pages or a working Internet site. Finally, students will reflect on their work and plan an event to present their web pages to the class or school and community. The approach supports student skill development and encourages meaningful methods of collecting, interpreting, and presenting a variety of perspectives on significant issues.

Organizational Structure:

Unit	Title	Time
Unit 1	Basic Web Page Design :	15 hours
Unit 2	Advanced Scripting-JavaScript, dHTML, VML :	20 hours
Unit 3	Serving Information –PHP :	10 hours
Unit 4	Collaboration and the Final Project:	15 hours
		Total 60 Hours

Unit descriptions:

Unit 1: Basic Web Page Design

Time: 15 hours

Curriculum Organizer

- **Level C**
- *It is expected that students will:*
- Design a web page that functionally uses: links, images and basic formatting
- Design a web page that functionally uses:
 - unordered lists
 - ordered lists
 - nested lists (one of the above lists inside the other)
- Design a web page that functionally uses: tables
- Design a web page that functionally uses: forms
- Design a web page that functionally uses: Cascading Style Sheets (CSS)
- Design a web page that functionally uses: frames
- Design a web page that functionally uses: animated graphics and or sounds

- **Level D**
- *It is expected that students will:*
- Design a web page that functionally uses: links, images and basic formatting
- Design a web page that functionally uses:
 - unordered lists
 - ordered lists
 - nested lists (one of the above lists inside the other)
- Design a web page that functionally uses: tables
- Design a web page that functionally uses: forms
- Design a web page that functionally uses: Cascading Style Sheets (CSS)
- Design a web page that functionally uses: frames
- Design a web page that functionally uses: animated graphics and or sounds

Unit 2: Advanced Scripting-javascript, dHTML, VML

Time: 20 hours

Curriculum Organizer

- **Level C**
- *It is expected that students will:*
- use a structured problem-solving process for solving simple problems
- demonstrate an understanding of the following programming language concepts:
 - reduced vocabulary
 - translation to programming language
 - syntax and grammar
- apply a high-level programming language to implement the logical structures of sequence, repetition, and selection
- use a structured computer programming language to design and implement programs on a computer to solve problems
- demonstrate a commitment to clear and effective programming by using correct style and providing appropriate internal and external documentation
- apply suitable programming terminology
- identify the career opportunities for and roles of persons employed in environments that use programming

- **Level D**
- *It is expected that students will:*
- apply a structured process for solving complex problems
- use an industry-standard language to design and implement programs to solve complex problems
- evaluate and alter the logic and features of an existing program
- evaluate programs for productivity, utility, and social impact

Unit 3: Serving Information –php : Time: 10 hours

Level C

It is expected that students will:

- identify and describe a variety of electronic communications environments and software tools available for accessing electronic information
- evaluate a variety of electronic communications environments
- use a variety of electronic communications tools to solve problems
- design a format for presenting information received from electronic sources
- develop a bank of information received from electronic sources to solve a problem
- analyze information from electronic sources for bias
- create an interactive document that provides hypertext links to other documents
- demonstrate a commitment to the ethical and legal use of electronic communications tools
- analyze the social impact of electronic communications

Level D

It is expected that students will:

- evaluate the effectiveness of software used for sending and receiving information
- practice using a variety of electronic communications software to solve problems
- evaluate a variety of electronic communications environments
- design a format for presenting information from electronic sources
- use electronic sources to develop a bank of information for solving a problem
- analyze information from electronic sources for biases
- create a complex World Wide Web document
- describe the advantages and disadvantages of various service providers

Unit 4: Collaboration and the Final Project: Time: 15 Hours

Level C

It is expected that students will:

- identify a variety of tools and resources for creating and manipulating web page documents
- demonstrate an understanding of the characteristics of various media elements used in web page documents
- use a variety of existing media elements to create a web page presentation that has a defined structure
- design and create media elements and use them to generate a unique presentation
- demonstrate an understanding of web design terminology
- design a web site solution to a problem
- analyze the effectiveness of media elements used in a presentation
- analyze the effectiveness of a web page document used in a specific presentation
- identify the career opportunities for and roles of persons employed in environments that use web page design

Level D

It is expected that students will:

- evaluate the effectiveness of presentations delivered through web pages
- construct a complex document that requires a variety of web page processes
- analyze the effectiveness of media elements used in a presentation
- analyze the effectiveness of a web page document used in a presentation

- analyze a digital web site for its impact on the intended audience in terms of productivity, utility, and social consequences
- demonstrate an understanding of project management and effective teamwork
- identify available career opportunities, and describe the roles of people employed in environments that use or create web pages

Assessment Components:

Type of Assessment

Formative (80%) Multiple project based grading with feedback and re-grading.
Summative (20%) Single period web page design practical tests

Category

Practical Applications
Self-Rating Scale
Final Assessment

Details

Small daily projects
Final Web Site Project
Reflection and Presentation

Performance Methods

Personal Communication

- Group dialogue
- Student/instructor/mentor trilogies
- Logbook reflection
- Self-evaluation
- peer evaluation

Other

- Weekly project assessment
- Teacher log
- Checklists
- Rubrics
- Rating scales

Learning Resources:

All resources can be found on the web using <http://www.google.com> or <http://www.howstuffworks.com/web-page.htm> or <http://www.devguru.com>

Javascript Quick Reference, Rick Darnell, Que, 1996.

Web Design in a Nutshell, Jennifer Niederst, O'Reilly & Associates, January 1999.

Additional Course Information:

Schools will need adequate equipment and continuous access to computers to make the course run more smoothly.