Web Page Design/Programming

August 2010

Course Number: 691

Business Technology Teacher: Chris Dexter

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Principal: Greg Youngman

Director of Curriculum and Instruction: Scott Ripley

Superintendent: Dr. John Hannum

Name of Course: Web Page Design/Programming
Level of Course: Academic
Prerequisites: None
Grade levels offered to: 10 through 12
Course number: 691
Number of credits: 5
Length of course: Full Year
Recommended Teacher Certificate: Business Education
Recommended Class Size: 22
Revised date and Teachers names: Mr. Christopher Dexter 2010

High Point Regional High School's curriculum and instruction are aligned to the State's Core Curriculum Content Standards and address the elimination of discrimination by narrowing the achievement gap, by providing equity in educational programs and by providing opportunities for students to interact positively with others regardless of race, creed, color, national origin, ancestry, age, marital status, affection or sexual orientation, gender, religion, disability or socioeconomic status.

Purpose:
Web Page Design/Programming is a one-year course designed for students who wish to explore the most current uses of the Internet. The class introduces students to the Internet and its major applications. The course uses on-line resources as well as practice activities to help students build concepts focused particularly on acquiring information for business-related applications and simulations.

A history of the Internet will be covered, followed by information on browser software and search engines. Web search tools and Web information resources will be discussed and used **at length,** while students will research topics in variety of disciplines. In addition, students will learn to design and create Web pages using HTML and Macromedia DreamWeaver and Flash.

General Objectives:

1. Discuss the growth of the Internet and how it began.
2. Use the Web to find various categories of information using search engines, directories, and other tools.
3. Learn the basics of retrieving and sending e-mails.
4. Utilize the various sources of information, i.e. online library resources, university and government research sources, virtual museums, etc.
5. Plan, design, and create Web pages.
6. Integrate all concepts learned throughout the year and present a multimedia presentation to the class on their selected topic.

Standards Targeted Throughout the Curriculum:
New Jersey Core Curriculum Content Standards and Cumulative Progress Indicators

- All students will demonstrate knowledge of the process of critique. (CCCS 1.4)
- All students will listen actively in a variety of situations to information from a variety of sources. (CCCS 3.2)
- All students will read various materials and texts with comprehension and critical analysis. (CCCS 3.4)

- All students will develop the ability to pose and solve mathematical problems in mathematics, other disciplines, and everyday experiences. (CCCS 4.1)
- All students will communicate mathematically through written, oral, symbolic, and visual forms of expression. (CCCS 4.2)
- All students will develop reasoning ability and will become self-reliant, independent mathematical thinkers. (CCCS 4.4)
- All students will acquire historical understanding of economic forces, ideas, and institutions throughout the history of New Jersey, the United States, and the world. (CCCS 6.6)

Technological Literacy Standards

1. Create a multi-page document with citations using word processing software in conjunction with other tools that demonstrates the ability to format, edit, and print. (8.1A1)
2. Create documents including a resume and a business letter using professional format. (8.1A2)
3. Construct a spreadsheet, enter data, use mathematical or logical functions to manipulate and process data, generate charts and graphs, and interpret the results. (8.1A3)
4. Given a database, define fields, input data from multiple records, produce a report using sort and query, and interpret the data. (8.1A4)
5. Produce a multimedia project using text, graphics, moving images, and sound. (8.1A5)
6. Produce and edit page layouts in different formats using desktop publishing and graphics software. (8.1A6)
7. Discuss and/or demonstrate the capability of emerging technologies and software in the creation of documents or files. (8.1A8)
8. Merge information from one document to another. (8.1A9)
9. Describe the potential and implications of contemporary and emerging computer applications for personal, social, lifelong learning, and workplace needs. (8.1B 1)
10. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. (8.1B 2)
11. Make informed choices among technology systems, resources, and services in a variety of contexts. (8.1B 3)
12. Use appropriate language when communicating with diverse audiences using computer and information literacy.
13. Select and use specialized databases for advanced research to solve real world problems. (8.1B 5)
14. Identify new technologies and other organizational tools to use in personal, home, and/or work environments for information retrieval, entry, and presentation. (8.1B 6)
15. Evaluate information sources for accuracy, relevance, and appropriateness. (8.1B 7)
16. Compose, send, and organize e-mail messages with and without attachments. (8.1B 8)
17. Create and manipulate information, independently and/or collaboratively, to solve problems and design and develop products. (8.1B 9)
18. Identify, diagnose, and suggest solutions for non-functioning technology systems. (8.1B 10)
19. Identify a problem in a content area and formulate a strategy to solve the problem using brainstorming, flowcharting, and appropriate resources. (8.1B 11)

20. Integrate new information into an existing knowledge base and communicate the results in a project or presentation.(8.1B 12)21 (Career and Technical Education) All students will develop career awareness and planning, employability skills, and foundational knowledge necessary for success in the workplace. (9.1)
22. Select and utilize appropriate technology in the design and implementation of teacher-approved projects relevant to occupations and/or higher educational settings. (9.1B 3)

STANDARD 9.2 (Consumer, Family, and Life Skills) All students will demonstrate critical life skills in order to be functional members of society.

1. Describe and apply constructive responses to criticism. (9.2A 2)
2. Apply the use of symbols, pictures, graphs, objects, and other visual information to a selected project in academic and/or occupational settings. (9.2A 3)
3. Communicate effectively in a variety of settings with a diverse group of people. (9.2C 2)
4. Engage in an informed discussion about rules and laws designed to promote safety and health. (9.2F 1)
5. Practice the safe use of tools and equipment. (9.2F 4)
6. Implement safety procedures in the classroom and workplace, where appropriate. (9.2F 5)

Specific Behavioral Objectives and Time lines:

Unit # 1 INTRODUCTION Time = 1 Day

Goal:

- To familiarize students with the proficiencies of the course, materials and software that will be utilized. Review the Business Technology Department Policy to familiarize the students with the general classroom rules (expectations) such as: work ethics, promptness to class, cooperative learning, dependability, time management, respect for work environment and responsibilities for missed assignments.

Objectives:

1. Introduce course programs used.
2. Set work environment behavior that is expected in the classroom.

Assignments:

1. Students will complete 3 X 5 information card with name, address, telephone number, name of parent/guardian, counselor, previous computer knowledge.
2. Review Business Technology Department policy with regard to tardiness, respect for others, classroom environment and responsibilities for missed assignments.
3. Review and discuss course proficiencies that are to be given to parents.

Lab Activities: None

Standards used in this unit: **None**

Assessment Method:
1. Teacher observation in the classroom
2. Parent's signature on Course Proficiencies.

Computer Needs/Usage: None

Unit # 2 SAFETY Time = 1 Day

Goal:
- Students will be able to identify safety hazards in the classroom, both general and specific to computer usage and how to prevent them.

Objective:
1. Students will utilize department safety check list to identify the safety hazards and discuss in detail the reasons for the hazards and how to prevent them.

Assignments:
1. Students will sign the department safety check list to confirm their understanding of the hazards and acknowledge that the hazards were discussed by the teacher.
2. Students will practice each day by putting in chairs and correctly using hardware.

Assessment:
1. Safety related questions will be incorporated into the first test/quiz of the marking period.

Standards Targeted via this unit:
Consumer Life Skills 9.2 F1 Technology Literacy: 8.1 B2
Consumer Life Skills 9.2 F4
Consumer Life Skills 9.2F5

Audio/Visual Needs: Hardware equipment

Computer Needs/Usage: None

Unit # 3 HISTORY OF THE INTERNET Time = 2 WEEKS

Goal:
- Students will be able to identify safety hazards in the classroom, both general and specific to computer usage and how to prevent them.

Objective:
1. Students will utilize department safety check list to identify the safety hazards and discuss in detail the reasons for the hazards and how to prevent them.

Assignments:
1. Students will sign the department safety check list to confirm their understanding of the hazards and acknowledge that the hazards were discussed by the teacher.
2. Students will practice each day by putting in chairs and correctly using hardware.

Assessment:
1. Safety related questions will be incorporated into the first test/quiz of the marking period.

Standards Targeted via this unit:
Consumer Life Skills 9.2 F1 Technology Literacy: 8.1 B2
Consumer Life Skills 9.2 F4
Consumer Life Skills 9.2F5

Audio/Visual Needs: Hardware equipment

Computer Needs/Usage: None

UNIT # 4 Browser Basics Time = 2 Week

Goal:
1. Students will understand how to use browsers most effectively in exploring the World Wide Web

Objectives:
Students will:
1. Learn the client/server structure of the World Wide Web, understand the basics of browser software, and learn how to configure their browser
2. Understand hypertext, links and hypermedia as navigation paths through browsers.
3. Explore Web sites, their home pages, and how individual browsers affect them.
4. Learn to create a personalized favorites folder and organize it through the use of bookmarks.
5. Become familiar with IP addressing, domain name addressing, and the components of a URL.
6. Utilize the main elements of Web browsers; title bar, menu bar, status bar, navigation icons, and the history list
7. Identify enhanced features of Web pages
8. Understand how to cop, save, and print Web pages
9. Become familiar with copyright laws as it pertains to reproduction of Web pages.
10. Use and compare the Internet Explorer browser with Netscape Communicator; learn the intricacies of how to configure each.

Audio/Visual Needs: Hardware equipment

Computer Needs/Usage: Each student will need their own computer

UNIT # 5 HTML Time = 14 Weeks

Goal:
1. Students will understand the basics o HTML 4.0 and how it correlates to the development of web pages.

Objectives:
Students will:
1. Students will be able demonstrate and understanding of HTML formatting tags

2. Students will be able to link HTML files together.
3. Students will be able to differentiate between internal, external, and relative links.
4. Students will be able to demonstrate an understanding of basic formatting HTML tags
5. Students will be able to demonstrate an understanding of ordered and unordered lists.
6. Students will be able to use the correct HTML code for adding color into a HTML file
7. Students will be able to change the color of links in HTML documents.
8. Students will be able to correctly insert an image into an text file using <IMG SRC=photo.jpg>
9. Students will be able to change size, space, and add an ALT tag to a picture in HTML.
10. Students will be able to Insert a table with rows and columns in HTML and add table headers.
11. Students will be able to insert a text box using the <FORM> tag in HTML
12. Students will be able to use the <FORM> tag and insert a radio button in HTML.
13. Students will be able to use the <FORM> tag and a drop down list with five options to choose from.
14. Students will be able to create a jump menu using the HTML <FORM> tag.

Assessment:
1. Students will take a number of quizzes and test to measure their comprehension of the various HTML tags.
2. Students will complete a menu project with links.
3. Students will complete a Table Project with colors and background images.
4. Students will develop their own web based HTML Newsletter.
5. Students will develop their own HTML based flyer.

Audio/Visual Needs: Hardware equipment

Computer Needs/Usage: None

Standards Targeted via this unit:
- Technology Literacy: 8.1 B2
- Consumer Life Skills 9.2 F1
- Consumer Life Skills 9.2 F4
- Consumer Life Skills 9.2F5
- 9.1
- 9.1B 3

UNIT # 6 Research **Time = 2 Weeks**

Goal:
1. Students will choose a topic in Web Design or Internet History and compose a report.

Objectives:
Students will:

1. Students will follow the MLA style of reporting and write a comprehensive report.

Standards Targeted via this unit:

- Technology Literacy: 8.1 B2
- Consumer Life Skills 9.2 F1
- Consumer Life Skills 9.2 F4
- Consumer Life Skills 9.2F5
- 9.1
- 9.1B 3

UNIT # 7 Dreamweaver Time = 20 Weeks

Goal:

1. Students will understand the basics o HTML 4.0 and how it correlates to the development of web pages.

Objectives:
Students will:

1. Students will be able to create and modify flash text.
2. Students will be able to link documents using internal, relative, and external links in DreamWeaver
3. Students will be able to use DreamWeaver to create a slide show using 5 photographs from the Internet
4. Students will be able to create their own image map.
5. Students will be able to design a table using DreamWeaver.
6. Students will be able to create frames using DreamWeaver's Frame options.
7. Students will be able to create simple forms in DreamWeaver including a text box and drop down menu.
8. Students will be able to create simple forms in DreamWeaver including a radio button and drop down menu with link options.

Assessment:

1. Students will take a number of quizzes and test to measure their comprehension of the various features of Dreamweaver
2. Students will design their own product web page and present their product to the class.
3. Students will create their own personal web page about their live and present to the class.
4. Students will evaluate one of their classmates' web page for evaluation.

Audio/Visual Needs: Hardware equipment/DreamWeaver Software

Computer Needs/Usage: Each student will need one computer

Standards Targeted via this unit:

- Technology Literacy: 8.1 B2

- Consumer Life Skills 9.2 F1
- Consumer Life Skills 9.2 F4
- Consumer Life Skills 9.2F5
- 9.1
- 9.1B 3

Assessment:

Evaluation Tools

a. Measures of student progress

The assessment of student progress in the objectives cited on the previous pages will be primarily by, but not limited to, the following criteria.

Quizzes	10%
Class work	15%
Projects	40%
Tests	25%
Class Participation	10%

Mid Term and Final Exams Modified 2010

i. Observation

Systematic, wherein the observer gathers data on one or more precisely defined behaviors;
Nonsystematic, in which the observer watches the child at school in the setting of concern and notes the behaviors, characteristics, and personal interactions that seem significant;

ii. Authentic Assessment Measures Progress in Applied Skills

Authentic assessment rates students' performance on real world tasks. To perform successfully on these tests, students must know the subject area and be able to use that knowledge to perform problem solving tasks. Activities used in authentic assessments may include:

Conducting research; Designing a solution to a problem;
Writing a news article, poem, or short story; revising and discussing papers;
Performing an oral presentation based on a project or analysis; and collaborating with others

b. How will you measure the effectiveness of this course?
   i. Increased enrollment in upper level course.
   ii. Increases in final exam grades
   iii. Increase in final grades.
   iv. Student end of course evaluation.
c. Mid term exam written/ or revised June 2008

Homework, Extra Credit Policy:
Due to the fact that no textbook is issued, homework in this course is not generally given on a regular basis. However, homework that is assigned will not be accepted late unless a legitimate excuse exists. Extra credit will be available during the Web design activities in the form of additional research and design.

Special Course Policies:
Success in this course will be based on a variety of factors, however the instructor will most directly assess the student's performance in problem solving activities and simulations, group work performance, test and quizzes and class participation as the means of computing a grade. A typical week in class will consist of formal instruction on variety of material, students working in groups to complete work pertaining to the lecture, case studies on various topics, and at times, research projects. Quizzes and tests will be given to re-emphasize and assess the student's understanding of the presented information.

Text: No text issued

With the evaluation curriculum every five years, administration requests a curriculum re-write in the year **2015.**

Materials/Resources:
Jennings, Susan E. Internet Office Projects. (South-Western Educational Publishing, Cincinnati, Ohio). 1999. ISBN 0-538-72186-3.

Marold, Kathryn A. Internet Navigation and Exploration. (Paradigm Publishing Inc., St. Paul, Minnesota). 2002. ISBN 0-7638-1312-5.

Williams, Robin. The Non-Designer's Web Book. (Peachpit Press, Berkeley, California). 2000.
ISBN 0-201-71038-2.

Lab/Classroom set up and special needs:
The nature of this course requires that it be taught in a computer lab equipped with 24 computers, a printer, scanner, and a teacher station monitor for instruction purposes**.** In addition, a special lab is set up for the students after school—one day each week in the event they have to make up work and wish to redo an assignment for a better grade.

Web pages that support learning:
http://werbach.com/barebones/
http://www.midnightbeach.com/jon/pubs/html2.htm
http://www.learn.k12.ct.us/julie/Images.htm
http://www.ipl.org/
http://www.dsdesign.com/articles/
http://www.google.com
http://www.coffeecup.com/html-editor/
www.Lynda.com

www.Webmonkey.com
www.pageresource.com
http://www.thesitewizard.com/gettingstarted/dreamweaver-cs4-tutorial-1.shtml
http://bestwebdesignz.com/tips/dreamweaver/dreamweaver-cs4-tutorial/