

#491-001 **WEB DESIGN AND E-COMMERCE**

LEVEL: 1

CREDITS: 5

PREREQUISITES: A grade of "B" or better in Course 762 or Department Chairperson recommendation

BASIC TEXT: Learning E-Commerce and Learning Microsoft FrontPage 2002 by the DDC Publishing Company, 2002

SUPPLEMENTAL READINGS E-Commerce by Dotty Boen Oelkers, South-Western Publishing Company, 2000

REQUIRED MATERIALS: Students are required to bring writing utensils and a notebook to class each day.

COURSE DESCRIPTION: This offering would focus on Web Site Design and development as well as the basic skills and technologies needed to be incorporated into today's web sites. Microsoft Front Page would be the courseware used for the first nine weeks. The second nine weeks would focus on e-Commerce. The students would explore approaches to online marketing, customer service, site hosting, secure server issues, order fulfillment, and legal issues. The student would also analyze those businesses that have made it online and those which have failed. This course would hopefully help students make informed business decisions regarding e-Commerce. Students taking this course will have the opportunity to participate in DECA (An Organization of Marketing Students).

MISSION RELATED GOALS: While using computer technology, this course will foster the development of communication and problem-solving skills.

Students will use higher order thinking skills while applying E-Commerce and Front Page concepts using prior knowledge and/or new information to respond appropriately to a given situation or problem.

Students will solve complex problems by defining a problem, locating resources, formulating a sequence of steps to solve the problem, and arriving at and verifying a reasonable solution to the problem.

STUDENT EXPECTATIONS FOR LEARNING ADDRESSED: Students will communicate effectively and work towards a common goal while utilizing their problem solving skills to solve complex problems.

GENERAL PERFORMANCE OBJECTIVES: The students will have a firm foundation in the basic skills, concepts and technologies needed for sound Web site design and development. The students will also be proficient in exploring approaches to on-line marketing, customer service, site hosting, secure server issues, order fulfillment and legal issues. They will be able to analyze and understand those businesses that have made it online and those which have failed

MASSACHUSETTS FRAMEWORK STRANDS:

- 1.35 Demonstrate file management skills (e.g., install new software, compress and expand files as needed, download files as appropriate).
- 1.36 Run multiple applications simultaneously, alternating among them.
- 1.37 Resolve commonly occurring error messages. Resolve simple hardware and software problems as they occur (e.g., frozen screen, disk error, printing problems).
- 1.38 Identify and use methods for transferring, downloading, and converting graphic, sound, and video files. Use different graphic file formats where appropriate (e.g., PICT, TIFF, JPEG).
- 1.39 Save (also retrieve, load, and import) a word-processed document in different file formats (e.g., RTF, HTML).
- 1.40 Use a variety of external peripherals (e.g., printers, Zip drives, scanner, digital camera) and understand how they connect to a computer.
- 1.41 Perform efficient keyboarding technique.⁶
- 1.42 Import/export and link data between word-processed document and other applications.
- 1.43 Duplicate database structure without data.
- 1.44 Use features of a database program such as mailing labels and mail merges.
- 1.45 Import/export and link data between database and other applications.
- 1.46 Use advanced formatting features of a spreadsheet application (e.g., reposition columns and rows, add and name worksheets).
- 1.47 Use formulas in a spreadsheet application.
- 1.48 Import/export data between spreadsheet and other applications.
- 1.49 Customize formatting of charts or graphs created in spreadsheet.
- 1.50 Define and use functions of a spreadsheet such as sort, filter, find.
- 1.51 In a spreadsheet application, use various number formats (e.g., scientific notation, percentages, exponents) as appropriate.
- 1.52 In a browser, organize bookmarks into folders for further reference.
- 1.53 Know how to select and use search engines. Understand the differences between search engines.
- 1.54 Explain effective search strategies to locate and retrieve electronic information (e.g., understand and use syntax and Boolean logic operators).
- 1.57 Create a multimedia presentation, desktop-published report, or Web page that incorporates data from other files.
- 1.58 Create and manipulate illustrations using a drawing or painting program (e.g., adjust scale, size, shape).
- 1.59 Identify capabilities of technology resources and understand how they can be used for lifelong learning.
- 1.60 Select the appropriate technology tool for a task.
- 2.16 Identify ways in which technology is used in the workplace and in society.
- 2.17 Demonstrate a clear understanding of the school's Acceptable Use Policy.
- 2.18 Explain laws restricting use of copyrighted materials on the Internet.⁹
- 2.19 Explain how to evaluate electronic sources of information. (See Integrated

Learning Scenario, Validating a Web site.)

2.20 Cite electronic sources correctly.10

2.21 Understand issues of ergonomics and practice safe use of equipment.

3.12 In conducting research use all appropriate electronic sources (e.g., Web sites, online periodical databases, online catalogs).

3.13 Integrate (with correct citations) electronic research results into a research project.

3.14 Routinely evaluate Web sites for authenticity when using them.

3.15 Present information, ideas, and results of work using any of a variety of communications technologies (e.g., multimedia presentations, Web pages, videotapes, desktop-published documents).

3.16 Collect, organize, analyze, and graphically present data using the most appropriate tools (e.g., spreadsheet, database, graphing, and concept mapping tools).

3.17 Import graphics, photos, and other media into report or presentation, citing sources appropriately.

3.18 Create multiple links among various pieces of information residing in different applications (e.g., a chart imported from a spreadsheet into a word-processed report can be linked to update automatically when the data is changed in the spreadsheet).

3.19 Demonstrate how specialized technology tools can be used for problem solving, decision-making, and creativity (e.g., simulation software, environmental probes, computer-aided design, geographic information systems, dynamic geometric software, graphing calculators, art and music composition software).

3.20 Demonstrate the function of electronic conferencing tools such as Internet bulletin boards, listserv, electronic classrooms, and interactive video.

CURRICULUM FRAMEWORKS LEARNING STANDARDS:

Standard 1. Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.

Standard 2. Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.

Standard 3. Demonstrate ability to use technology for research, problem-solving, and communication. Students locate, evaluate, collect, and process information from a variety of electronic sources. Students use telecommunications and other media to interact or collaborate with peers, experts, and other audiences.

UNITS AND THEMES:

I.	Understanding the purpose of E-Commerce Standards 1, 2, 3	1 week
II.	Buying and Selling Activities Standards 1, 2, 3	1 week
III.	Capstone Project, Case Study	1 week

	Standards 1, 2, 3	
IV.	Competitive Environment & Communication	
\$	Asynchronous versus Synchronous	1 week
	Standards 1, 2, 3	
V.	International Transactions, Regulations and Customs	1 week
	Standards 1, 2, 3	
VI.	Data Mining, Security and Copyrights	1 week
	Standards 1, 2, 3	
VII.	Online Purchase process	1 week
	Standards 1, 2, 3	
VIII.	Marketing and Advertising	1 ½ weeks
	Standards 1, 2, 3	
IX.	General Review and Final	½ week
X.	FrontPage Environment - HTML Code - Hyperlinks	1 week
	Standards 1, 2, 3	
XI.	Adding Graphic Web Elements	1 week
	Standards 1, 2, 3	
XII.	Creating Tables	1 week
	Standards 1, 2, 3	
XIII.	Frames and Special Effects	1 week
	Standards 1, 2, 3	
XIV.	Project # 1- E-Commerce and FrontPage	2 weeks
	Standards 1, 2, 3	
XV.	Web Development, Web Publishing, Web Security	2 weeks
	Standards 1, 2, 3	
XVI.	Setting Up Discussion Groups	½ week
	Standards 1, 2, 3	
XVII.	General Review and Final Exam	½ week

COURSE OUTLINE:

- I. Understanding the purpose of E-Commerce
 - a. Understanding the purpose of e-Commerce
 - b. The advantages and disadvantages of e-Commerce
 - c. Business 101- Brave New World
 - d. Self-Employment - Five Steps to Creating a Successful Business.
 - e. Changing the Distribution System
 - f. Web Entrepreneurs
 - g. Integration of Retail Stores with e-Commerce
 - h. How businesses reticence
 - i. Partnerships
 - j. Analyze 3 Similar Sites What are the Advantages and Disadvantages to each site?
- II. Buying and Selling Activities
 - a. Buying and Selling Activities
 - b. Learn how electronic procurement can save money
 - c. E-Marketplaces
 - d. Invoicing and Distribution

- e. The Online Shopping Cart
- f. Customer Service Policies
- g. Providing Information to customer
- h. How Outsourcing works
- III. Capstone Project, Case Study
 - a. Capstone Project, A Case Study. Analyze “All Creatures”, a small publishing company which deals with books on pets and exotic animals. Make a list of competitive challenges this business would face online including specific examples of competitors who are already online. What image are these companies projecting? What services do they provide their customers? How do they provide information on their products to customers on their Web sites. How does “All Creatures” compare to their competitors? How can “All Creatures” compete?
- IV. Competitive Environment & Communication
 - a. Changing how people communicate and Surveying the Competitive Environment
 - b. Online conferencing
 - c. Workgroups on the Internet,
 - d. Live Chat (Synchronous Communication) Bulletin Boards (Asynchronous Communication), How does your product and pricing stack up against the competition?
- V. International Transactions, Regulations and Customs
 - a. Working across Borders and the Challenges of International Transactions - International Customers
 - b. Managing different languages
 - c. Currency Conversion Issues and World Trade Regulations
- VI. Data Mining, Security and Copyrights
 - a. Data Mining
 - b. Security
 - c. Policing the Web
 - d. Copyrights and Trademarks
 - e. Fraud
 - f. Protecting Consumer Privacy
 - g. Regulating Payment and Taxes for Online Transactions
 - h. Electronic Signatures Act
- VII. Online Purchase process
 - a. From Shopping Cart to Check Out - Online Purchasing process
 - b. How e-Business manage customer accounts
 - c. How orders get processed
 - d. Payment and return Options
 - e. Shipping
- VIII. Marketing and Advertising
 - a. Marketing your Online Business
 - b. Advertising TV ads online, m-Commerce and wireless advertising
 - c. Tracking Advertising effectiveness
 - d. Banner Advertising, Portals and Affiliates

- IX. General Review and Final Exam
- X. FrontPage 2002 Environment
 - a. FrontPage Window, Views, Open FrontPage Web, Close FrontPage Web
 - b. HTML, HTML Tags, View HTML Code
 - c. Create Web page using Templates, Web Fonts, Enter Text, Styles
 - d. Create Hyperlinks
- XI. Adding Graphic Web Elements
 - a. Change page background, Insert Horizontal Line Web Divider
 - b. Drawing Tools, Create WordArt Graphics, Insert Pictures
 - c. Create Thumbnails, Create Hotspots (Image Maps)
 - d. Insert Video Clips
- XII. Creating Tables
 - a. Resize columns and rows
 - b. Table Properties, Table Alignment, Fill Commands, Split Tables
- XIII. Frames and Special Effects
 - a. Create Frames, Link within Frames Page, Modify Frames
 - b. Insert Background Sound
 - c. Create Hover Buttons
 - d. Create Banner Ad
- XIV. Project # 1 E-Commerce and FrontPage
 - a. Design a FrontPage Site incorporating concepts learned in e-Commerce and the first four weeks of FrontPage
- XV. Web Development, Web Publishing and Web Security
 - a. Searching - Navigation Structures
 - b. Link Bars, Borders, Hit Counters
 - c. Set Publishing Options, Publish to Different Server Locations
 - d. Web Security
 - e. Customize Search Pages
- XVI. Setting up Discussion Groups
 - a. Moderators
 - b. Focus and Ethics
- XVII. General Review and Final Exam

SUGGESTED INSTRUCTIONAL STRATEGIES: Lectures, Case Studies, design of web sites apropos to sites being learned, having students contact web masters of sites to gather information on why sites were constructed in a certain way and to gather information on the business. Writing assignments demonstrating that each student can effectively communicate E-Commerce and Web Design concepts will be utilized, and exams will be administered in various formats, vocabulary, true and false, multiple choice and individual programs.

SUGGESTED INTEGRATED ACTIVITIES: Students will update, maintain and develop Web Sites for the subject disciplines and student activities throughout the Tewksbury School System. Students will use knowledge of E-Commerce and Web Design to participate in DECA activities.

USE OF TOOLS / TECHNOLOGY: State of the Art computers, (IBM format) Internet, Scanners and Digital Cameras

ASSESSMENT TECHNIQUES: Teacher observation of skills developed after the completion of concepts discussed and demonstrated

Practical Applications involving group and individual projects that demonstrate proficiency in online marketing and management as well as in sound Web design and development

Writing assignments demonstrating that each student can effectively communicate business technology and Web design concepts.

Homework assignments involving analyzing case studies of businesses that have survived and failed online. In addition, analyze different Web Sites

Tests will include multiple choice, true and false, short answers and essays