Complete Course Schedule for **TS5110**

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General Information

General Information about Your Course

Access iGuide for information on the following:

Bookstore Information

Contact Information: University Services

Accommodations for Learners with Disabilities

Library Resources

General University Policies

Writing Guide and Templates

Course Tutorial and Practice Course

If this is your first online course, please take a moment to walk through the Course Tutorial and Practice Course. This tutorial will allow you to become comfortable navigating your online course. You will become familiar with the four databases that comprise this course: Schedule (course syllabus), CourseRoom (threaded discussion area), MediaCenter (library of supplementary materials), and Profiles (personal and professional information on all learners and instructors).

The Practice Course will help you to become familiar with how posting works in the threaded discussions in the CourseRoom. Please also read "How to Use the CourseRoom" and "Helpful Hints for Reading Postings in the CourseRoom."

Additional Capella University Information

General Expectations

The outline and structure of this course creates a set of common expectations for your work. At the same time, each individual instructor has a personal style and way of working with learners that is unique. Your instructor may have expressed that style and manner of working in a CourseRoom document that is linked to the Faculty Expectations section. Here, however, are some general considerations Capella University wishes to emphasize:

- Please keep current in class. Learners who fall behind are less likely to get feedback

from others in online discussions. If something happens that is going to cause you to fall behind, contact your instructor immediately.
- Please read the information contained in the Advising and Resources / Learner Resources section of iGuide to become familiar with university policies and procedures. Policies and procedures are in your learner handbook in iGuide and in the Learner Resources page.

Discussion Etiquette

Capella University is committed to open, frank, and insightful dialogue in all of its courses. Diversity has many manifestations, including diversity of thought, opinion, and values. We encourage all learners to be respectful of that diversity and to refrain from inappropriate commentary. Should such inappropriate comments occur, faculty will intervene as they monitor the dialogue in the courses. Faculty will request that inappropriate content be removed from the CourseRoom and will recommend university disciplinary action. Learners as well as faculty should be guided by common sense and basic etiquette. The following are good guidelines to follow:

- Never post, transmit, promote, or distribute content that is known to be illegal.
- Never post harassing, threatening, or embarrassing comments.
- If you disagree with someone, respond to the subject, not the person.
- Never post content that is harmful, abusive; racially ethnically, or religiously offensive, vulgar; sexually explicit; or otherwise potentially offensive.

The university disciplinary policy that addresses these issues is available on iGuide and is titled, "Comportment in Course Discussion and Personal Interactions"

Confidentiality of Information Shared by Learners

Capella University does not guarantee the confidentiality of information shared by learners in the course environment. Therefore, learners should not share any confidential information from employers unless explicitly released for public use.

MediaCenter Materials

The MediaCenter contains copies of supplementary material, when made available by the course instructor. You can download these files and view them when you are not online.

Printing

You may want to have a hardcopy of the course content for review offline. To print the entire Schedule:

1. Click on the Schedule icon. This will take you to the Course Outline in the Schedule.
2. Click on the section under Start Here titled: "to print the schedule click here and use

your browser's print option". This will take you to a text file containing all the entries in the Schedule. You can choose to print the entire document or any portion you wish.

If you just want to print out a section or two, either in the Schedule or in the MediaCenter:

1. open the section (or attachment in the MediaCenter) that you want to print
2. Click on the File Menu of your browser and select Print. You will print the entire section you are in.

Important Note about URLs Referenced in this Course

Please note that URLs change frequently; while current when this course was designed, some of the addresses included may be changed or out of date. If you have questions about a specific entry, contact your instructor and she or he will attempt to locate an alternative URL, or design an alternative study/CourseRoom/journal assignment.

Course Evaluation

Near the end of your course, you will receive an email from Websurveyor, an online hosting service, with instructions on completing your course evaluation. Your feedback is valuable to us as we continue to improve courses, programs, and services. Responses remain confidential, as summary results are shared with faculty after grades have been submitted.

School of Technology Information

Schedule

You will have a total of twelve (12) weeks, including a one (1) week break (during the fifth week), to complete the Learning Units of the course and the written assignment(s). At different intervals, you will receive suggestions to move forward on your written assignment so that you can complete the course within the allotted time.

Grading Policy

All courses in the School of Technology are graded as follows:

Grade	Minimum Percentage	Maximum Percentage
A	90%	100%
B	80%	89%
C	70%	79%
F	69% or less	69%

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Overview, Goals, and Requirements

Overview

Welcome to your Capella University online course, TS5110--Enterprise System and Application Development. This course provides a sampling of the key mechanisms, technologies, theories, and design principles used to develop business-supporting Web sites. It presents a firm foundation in the underlying theories and techniques used in developing and designing attractive and functional Web pages by presenting the details of HTML (hypertext markup language), HTTP (hypertext transfer protocol), and CGI (common gateway interface). It also presents the use of Web development tools to ease the burden of coding Web sites totally by hand.

It first concentrates on the Web page without considering its dynamic interaction with the server. You will explore the basic static elements of a Web page (i.e., page layout, including images, using tables to present data and control page formatting, linking, etc). You will then learn how to add dynamic capability to your Web pages using JavaScript and DHTML. You will also learn how Cascading Style Sheets allow flexibility in page design and sharing of this design between Web sites.

The next segment of the course explores the real business end of Web development, interfacing the Web page with business logic and the server. You will learn how a Web page interacts with the server using forms, HTTP, and CGI to provide interaction with the Web page user. You will also examine and modify a PERL script that provides similar functionality in order to understand the Web-page-to-server interaction fully.

Finally, you will research a very important technology, XML, which supports sharing data between business units and enhancing Web-based publication. You will learn how XML supports these areas.

Notes on Readings:

There is considerable material being covered in this course. As a result, you will notice that the reading assignments are rather long. Read the material to grasp the key concepts of the unit; do not read with the intent of remembering everything you read. The lab exercises and exercises with Dreamweaver will reinforce the concepts from the text. The texts will serve as an excellent reference tool, so just try to remember where you may have seen a particular concept explained so you can use it in the future. It should also serve as a good reference and starting point for work on your class project.

As you work through the units of this course, decide how these technologies can be incorporated into your class project. Your project is the place to demonstrate what you have acquired in this course and to explore an area of Web development of particular interest to you.

Notes on Software and Book Versions:

We wanted to clarify this for you since this is something that has been confusing to learners in

previous offerings of this course.

You should have the most recent version of Macromedia Dreamweaver for this course; however, if you have a previous version, you will still be able to participate with no problems. Regardless of the software version, you should still have purchased Lynda Weinman's Dreamweaver MX HOT for this course.

This should answer all version questions, but if you do have questions, please feel free to ask your instructor!

Learning Goals

Goal I. Use Dreamweaver to prepare Web pages that reveal a mastery of table elements, aligning images and text, building navigation elements, and rollovers.

Goal II. Discuss the basic concepts of Web site development, particularly the key capabilities of HTML and its migration to XHTML.

Goal III. Develop a Web site that uses the most common commands of HTML, incorporating graphics, color, text formatting and placement, basic forms, JavaScript, and CSS (Cascading Style Sheets).

Goal IV. Research the basic requirements of designing business caliber Web sites and create a Web site that applies the learned concepts.

Goal V. Demonstrate the basics of form processing and CGI and how the Web server is used to provide dynamic content to Web pages.

Goal VI. Discover the power of XML and how you can use it to support the display of self-identifying data on your Web pages.

Goal VII. Describe the various types of formal site designs and apply one site design to the development of your final project.

Requirements

1. At least once per week, participate in the CourseRoom discussion as indicated in each Learning Unit. It is recommended that you post responses to the instructor's questions by mid-week and that you post responses to other learners' responses by the end of each week. The specific due dates and schedule are at the discretion of your instructor.

2. Complete all assignments as indicated in each Learning Unit.

3. Complete one individual project designed in consultation with, and approved by, the course instructor. This project must demonstrate an understanding of the objectives of this course. This course is specifically designed to cover the prescribed material within eight units and to use the subsequent weeks to complete work on your final project.

Grading Criteria

Your performance will be assessed on a point system and grades assigned as indicated in the School of Technology grading policy in the General Information section for all courses. For specific criteria related to this course, please refer to the Scoring Guides and Grade book, located in the MediaCenter.

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Course Resources

Resources

Learning Resources

Required texts and readings include:

Deitel, H. M., Deitel, P. J., & Nieto, T. (2002). *Internet & World Wide Web, how to program* (2nd ed.). Upper Saddle River, NJ: Prentice Hall. ISBN 0-13-030897-8

Green, G., & Rudner, A. (2003). *Dreamweaver MX hands-on training.* Berkeley, CA: Peachpit Press. ISBN: 0-321-11271-7

Required software:

Macromedia Dreamweaver MX

Supplementary Materials

In the Middle: Enterprise-Ready Web App Servers

Shaping the Future of HTML

Introduction to XHTML, with eXamples

Learning to Write Java

ActiveX Controls

ActiveX

MSDN Home

The Document Object Model Dissected

Web Design Tips – Useful Tips for Effective Web Design

World Wide Web Consortium

The Three Models (Web Design Methodologies)

< Start Here >
Faculty Expectations

Your faculty may want to add particular expectations about this course. This section provides a hotlink to the CourseRoom where the faculty can post their expectations. If the large gold button in the upper right hand corner says "Faculty Start New Topic", your faculty has not posted any expectations. If the button says, "Join Discussion", click on the button to go directly to your faculty's posting of expectations.

< Start Here >
Edit Your Profile

Click on the Profiles icon in the upper left-hand corner. The icon looks like this: 

Once in the Profiles, introduce yourself to the rest of the group, declare to the group your personal goal for this course, and familiarize yourself with other members of the course and the instructor.

Unit 1 - Designing Web Sites for the Enterprise
Introduction and Objectives

This course introduces the basic technology and software design issues related to the design and construction of Web-based business applications. It goes beyond HTML coding and page layout to the basics of practical applications, that is, development of a business caliber Web site. Professional Web site development methods and software will be used in the course. This unit introduces a formal methodology of Web site development. You will prepare an initial storyboard of your business-oriented Web site and then build a Web site that allows you to exercise the skills you develop within this class. Your class project should include the development of a business-oriented Web site using some of the HTML concepts you will learn in the labs for this course. You will create your professional Web site using Dreamweaver.

Also introduced in the MediaCenter is the e-portfolio requirement. This is not a graded portion of the course but should be developed throughout your masters program. This course should get you started thinking about your personal e-portfolio Web site.

Learning Objectives:

- Recognize the broad outlines of a formal methodology for Web site development.
- Research the standards for Web site design as identified by the World Wide Web Consortium and apply one concept to the course discussion.
- Begin the process of identifying and planning for final project for this course.

Unit 1 - Designing Web Sites for the Enterprise
Information Assignments

1. Read Deitel textbook, Chapter 1. (Read for key concepts.)

2. Read the following Web site on three formal design methodologies: The Three Models – IBM. Use the information gained on this site to help you devise a plan for the development of your final project.

3. Review the World Wide Web Consortium Web site to find tips for proper basic Web design.

Unit 1 - Designing Web Sites for the Enterprise
Action Assignments

1. Dreamweaver exercises (*Dreamweaver Hands-On Training*): Complete Chapter 1 (Background), Chapter 2 (Interface), Chapter 3 (Site Control), and Chapter 4 (Basics).

Note: Read the selections to get information, not to memorize anything. This book is a resource to you and should be used throughout the quarter! Complete the Dreamweaver exercises, but you do not have to turn in the finished exercises. If you have questions, please post them to the CourseRoom.

2. Complete Lab 1: Creating A Storyboard, located in the MediaCenter. If you are using special screen reading software, please refer to the compliant version "Lab 1 (screen reader accessible version)" in the MediaCenter.

Unit 1 - Designing Web Sites for the Enterprise
CourseRoom Assignment: Discussion 1

Discussion 1:

Share with the other learners and the course instructor some brief insights on your prior knowledge and experience in Web site design and what you most want to learn to extend your competence in the area. This is intended to help you focus your attention on what you want to accomplish in this course. In addition, this is a get-to-know-you exercise that will help all learners and the course instructor to begin to know each other. Please address the following questions:

1. Computer Usage Abilities - What is your familiarity with and ability level in basic computer usage (using applications, installing programs, file management, and others)?
2. Web-related Experience - What experience do you have related to interactive Web site design? Do you have personal experience and job experience relevant to Web design?
3. Web Technology and Management - What is your current level of ability in the technical aspects of Web site design (HTML code, images, and other) and in Web-design project management?
4. Learning Needs - What do you most want to learn from this course? How does the course relate to your personal and professional learning?

Unit 1 - Designing Web Sites for the Enterprise
CourseRoom Assignment: Discussion 2

Discussion 2:

Describe your understanding of one basic concept of Web site design. Explain how you will

utilize this concept within your final project, based on the World Wide Web Consortium design principles.

Unit 1 - Designing Web Sites for the Enterprise
CourseRoom Assignment: Discussion 3

Discussion 3:

Give a brief overview of the three design methodologies described in the assigned reading. Identify which methodology you would likely use in developing your final project and explain why.

Unit 2 - Using Dreamweaver to Design Professional Business Web Sites
Introduction and Objectives

This unit introduces key technical concepts associated with building Web pages. As you read the text, pay particular attention to guidelines about when and how to use color and images "appropriately" so their use enhances rather than distracts from the content or main purpose of the Web page. For an excellent view of what constitutes "appropriate" use of these features, scan through useit.com: Jakob Nielsen's site (Usability and Web Design), where Jakob Nielsen discusses the virtues of simplicity in Web site design.

Using a WYSIWYG (what you see is what you get) application is the new method of designing Web sites, both personal and professional. In this unit, you will begin learning how to use Dreamweaver to design Web sites. The act of hard coding static Web sites through HTML is nearly a lost art as more and more developers use WYSIWYG Web design applications. This unit will introduce you to the use of Dreamweaver to build static and dynamic Web pages.

Learning Objectives:

- Prepare a basic Web page with a combination of text, images, and color.
- Research how tables are used in a Web site, both to present data and to set up site navigation schemes and compare their navigational use to that of frames.
- Recognize the role of HTML and apply its basic structure.
- Recognize the specifics of text formatting.
- Demonstrate how to create links within a document and to other documents.

Unit 2 - Using Dreamweaver to Design Professional Business Web Sites
Information Assignments

1. Read the following article featuring design tips for professional Web sites: Web Design Tips - Useful Tips for Effective Web Design and be sure to incorporate these tips into the design of your final project.

Unit 2 - Using Dreamweaver to Design Professional Business Web Sites
Action Assignments

1. Work through Chapters 5, 7, 8, and 9 in *Dreamweaver Hands-On Training.* These chapters cover the following topics:

- Linking
- Layout
- Tables
- Frames

This is a lot of material, but it does go fast if you work through it in front of your PC. Prepare to try out some of the features in your own site (particularly Frames and Tables). Read the selections to get information, not to memorize anything. This book is a resource to you and should be used throughout the quarter!

2. Complete Lab 2: Creating an Outline, found in the MediaCenter. If you are using special screen reading software, please refer to the compliant version "Lab 2 (screen reader accessible version)" in the MediaCenter.

Unit 2 - Using Dreamweaver to Design Professional Business Web Sites
CourseRoom Assignment: Discussion 1

Discussion 1:

Describe various design tips as described in the article and pick two to three that you feel are most important for your final project. Explain why.

Unit 2 - Using Dreamweaver to Design Professional Business Web Sites
CourseRoom Assignment: Discussion 2

Discussion 2:

Based on the article you read describing professional design tips for a business Web site and based on your own experiences as a user, what items do you feel are missing? What tip(s) will you pay particular attention to as you work to develop your final project?

Unit 2 - Using Dreamweaver to Design Professional Business Web Sites
CourseRoom Assignment: Discussion 3

Discussion 3:

Visit any Web site you would like, such as a site you created or you visit frequently. Using the "Source" menu option take a look at the HTML source code. In Internet Explorer, the "Source" menu option is under the View menu. Based on this exercise, tell your peers what HTML is and why it is good for producing Web pages.

Unit 3 - Managing Site Design and Layout
Introduction and Objectives

This unit introduces you to Cascading Style Sheets (CSS). This important, developing technology in Web development allows separating the display characteristics of a document from its layout and content. As the text indicates, this technology is rapidly changing, so it is important to note its relevance to types of browsers and browser versions. It is becoming a key mechanism for providing the display representation for Extensible Markup Language (XML)

documents. XML is covered in a later unit in this course.

Learning Objectives:

- Develop a working knowledge of CSS and discuss how to implement CSS in a Web page.
- Determine when to use CSS and how best to use CSS.

Unit 3 - Managing Site Design and Layout
Information Assignments

1. Read Chapter 10 and particularly note the improvements and changes from SS1 to CSS2. Also, discover during your reading that style sheets can be used to tailor your pages to the type of client displaying them. We will most likely continue to see the proliferation of different types of browsers for the Web (particularly with wireless devices). Some of these browsers may not support high-resolution graphics or other "fancy" display-oriented techniques. Note that style sheets provide the capability of adding extensive graphic customization but also let a Web designer target the presentation of the page to browsers of different capabilities. Also, note where CSS1 and CSS2 are supported.

Unit 3 - Managing Site Design and Layout
Action Assignments

1. Complete Lab 3: FTP and Site Design, located in the MediaCenter.

Unit 3 - Managing Site Design and Layout
CourseRoom Assignment: Discussion 1

Discussion 1:

Explain the purpose of CSS to other learners. How does it facilitate design sharing?

Unit 3 - Managing Site Design and Layout
CourseRoom Assignment: Discussion 2

Discussion 2:

Explain where in a Web page or Web site you would incorporate each of the three ways of using CSS as indicated in the text. Use personal experience to elaborate on your answer where appropriate.

Unit 4 - Interfacing with the Server -- Forms and CGI
Introduction and Objectives

Most Web sites that do anything more than display relatively static information need to allow the site user to interface with logic and data stored on a server. Forms provide the client-side interface supporting this activity. CGI provides the client-to-server interaction that makes interfacing with the server possible.

In this unit, you will learn the basic types of form elements and how you can use them on your site to let the user interact with logic (business rules) on the server. You will learn to use the basic and more advanced form controls and where it is appropriate to use them. Do not try to

remember or memorize all the parameters, environmental variables, etc., connected with CGI or forms. Instead, please focus on understanding the underlying mechanisms (GET, POST, event handling, etc.).

In this unit, you will also learn the basic mechanisms supporting CGI and HTTP. You will also learn how vendors implement server-side extensions to HTML to access back-end databases and utilize the server to create custom HTML "on the fly." PERL is probably the most common scripting language used server side on the Web; it is a good idea to become at least familiar with it. If you wish to experiment with PERL, you can download a free copy of PERL from ActiveState – Applied Open Source. The common mechanisms are server side includes (SSIs) and parsed HTML. As you read these sections, please note the difference in design/implementation between each type of mechanism and its vendor's implementation. In the lab, you will add CGI support to the FORM controls implemented in the previous Learning Unit. You will communicate with the server to create connectivity within your Web site.

Learning Objectives:

- Describe the basic types of form elements and how you can use them on your site.
- Recognize the basic mechanisms supporting CGI and HTTP.
- Assess and discuss the use of server-side extensions to HTML to access back-end databases.
- Communicate with the server to create connectivity from your Web site to a back-end file that supports your site.

Unit 4 - Interfacing with the Server -- Forms and CGI
Information Assignments

1. Read all of Chapter 27 in the Deitel text. Again, read to understand the basic concepts, not to remember every detail!

Unit 4 - Interfacing with the Server -- Forms and CGI
Action Assignments

1. Complete Lab 4: Form Processing using CGI, located in the MediaCenter. If you are using special screen reading software, please refer to the compliant version "Lab 4 (screen reader accessible version)" in the MediaCenter.

2. Continue working on your final project. Feel free to ask questions of your peers, your instructor, or the lab assistants.

Unit 4 - Interfacing with the Server -- Forms and CGI
CourseRoom Assignment: Discussion 1

Discussion 1:

Discuss the pros and cons of using CGI in a Web page. Describe the purpose of the form you will build into your Web site.

Unit 4 - Interfacing with the Server -- Forms and CGI
CourseRoom Assignment: Discussion 2

Discussion 2:

Based on what you have learned about using Perl and CGI to interact with the server and with user input, describe how you would expand upon this for your project using a database. Remember: database functionality is not available on the Visi server so think of this as your wish list.

COURSE BREAK: This is a time for you to catch up on your reading and your contributions to the class discussion and start working on your final project. Your instructor will place the discussion assignment for the next unit in the CourseRoom in about one week.

Unit 5 - Enhancing a Web Site using Scripting
Introduction and Objectives

In this unit, you will learn the concepts that enable the dynamic behavior of HTML. You will learn about the DOM (Document Object Model) and how scripting languages allow a program to interact with it to provide both interactivity with the page's user and animated behavior of the contents of the page.

Learning Objectives:

- Recognize the architecture of the DOM and how it enables the dynamic capabilities of HTML.
- Gain a simple working knowledge of JavaScript so you can perform user input validation.
- Define and discuss the nature of the language.
- Demonstrate the ability to apply JavaScript functions within Web pages.
- Describe the concept of DHTML and the implications of using it within different browsers.

Unit 5 - Enhancing a Web Site using Scripting
Information Assignments

1. Read Chapter 7 of the Deitel text. Also, review Chapters 8 to 12 at your leisure to gain a further understanding of JavaScript.

2. Research the incompatibilities of JavaScript, JScript, and ECMAScript. Note that different versions of browsers support different versions of JavaScript. JavaScript was developed by Netscape, and JScript was developed by Microsoft. If you are trying to be compliant with the widest audience, you will need to limit your use of JavaScript to that supported by most browsers on the Internet (i.e., JavaScript 1.1). Note the importance of testing your JavaScript on a variety of browsers in several versions. Also, note that you may wish to check the type and version of the browser before kicking off your script to ensure it will run in the user's environment. A good programming practice is to provide a non-JavaScript interface that has equivalent functionality for browsers that cannot handle JavaScript. As you study, try to determine when using JavaScript is advantageous and when it may be a liability from the viewpoint of Web client-server interactions.

Note that the DOM also allows scripts to manipulate the characteristics of page elements through modifying Style Sheets. As you read this chapter, pay attention to the various ways one may solve the same problem (Style Sheets, DOM element attribute modification, etc.). A powerful feature of DHTML is providing animation to a page. As you read the section "Moving Objects With DHTML," note that tools like Dreamweaver and FrontPage offer support for creating DHTML animation. If you have access to FrontPage and Dreamweaver (or some other Web site design tool) compare how each tool is used to obtain the same goal. For even more fun, examine the HTML they create and compare them.

Also, as you are reading about JavaScript, please note these concepts. What infrastructure does JavaScript depend on and interact with? Does this imply that JavaScript is an Object Oriented (OO) language? Although DOM objects are used, these are not true objects in the sense of an OO programming language. If you are familiar with other GUI supporting languages, compare JavaScript event processing with event handling in the language with which you are familiar.

3. Please review the Web site: Web Developer's Virtual Library – The Document Object Model Dissected http://www.wdvl.com/Authoring/DHTML/DOM/ where you will find an overview of information regarding the DOM.

Unit 5 - Enhancing a Web Site using Scripting
Action Assignments

1. Complete Lab 5: Form Validation Using JavaScript, located in the MediaCenter.

2. Continue working on your final project. Feel free to ask questions of your peers, your instructor, or the lab assistants.

COURSE BREAK: The week following the completion of this unit is the course break. This is a time for you to catch up on your reading and your contributions to the class discussion. The discussion assignment for the next unit will be posted in about 1 week.

Unit 5 - Enhancing a Web Site using Scripting
CourseRoom Assignment: Discussion 1

Discussion 1:

Give a brief description of JavaScript based on your readings and research. Describe how you might apply the use of JavaScript to your site beyond the lab for this unit.

Unit 5 - Enhancing a Web Site using Scripting
CourseRoom Assignment: Discussion 2

Discussion 2:

The Importance of the DOM

Explain to other learners the importance of the DOM in DHTML. What must be considered in using the DOM across different types of browsers?

NOTE: Be ready to share a draft of your course project in Unit 8. Each learner will submit a draft project in the CourseRoom in order to receive feedback from other classmates. The week after Unit 8 (week 10) you will have the opportunity to then elicit final feedback from your instructor after you have made the changes suggested by your peers as you felt was appropriate.

Unit 6 - Adding Dynamic Behavior using Java and ActiveX
Introduction and Objectives

In this unit, you will become familiar with using Applets and similar technologies to add interactive functionality to your site and bring it to life. You will be able to determine when to utilize these types of technologies. You will also learn about security concerns in using these technologies.

Active X is one of the most popular techniques used to add custom behavior and graphics to Web pages. As you will learn in this unit, it is a proprietary technology developed by Microsoft, but one that has a clear interface description and is relatively easy to use. You will see the commonality of this technology with other plug-in and embedding technologies. As you study, try to compare this technology with embedding Applets or utilizing plug-ins like Flash. Pay particular attention to potential security issues and the suggested mechanisms for protecting against security problems.

Learning Objectives:

- Develop an understanding of Applets, Active X, and other interactive technologies, and determine when to use Applets in a Web site.
- Assess the security concerns with these interactive technologies.
- Learn the basic concepts surrounding Active X.

Unit 6 - Adding Dynamic Behavior using Java and ActiveX
Information Assignments

1. Read all of Chapter 17 in the Deitel text. A good Java reference is "Java in a Nutshell" (O'Reilly -- get their latest revision - optional). As you read the text, note security issues associated with these technologies. Also, note the training and experience level needed to work with these technologies. Finally, note any browser compatibility issues with these technologies.

2. Check out the following sites that contain more information on Active X Controls:

ActiveX Controls – Microsoft Papers, Presentations, Web Sites, and Books, for ActiveX Controls.

Active X - Download.com.

MSDN Home page.

3. Read the following article that contains an overview of Java: Web Developer's Virtual Library – Learning to Write Java. Do not read this article to absorb all of the information but instead to

gain a basic understanding of this language.

Unit 6 - Adding Dynamic Behavior using Java and ActiveX
Action Assignments

1. Complete Lab 6, Embedding Applets, found in the MediaCenter. Please go directly to the MediaCenter to access Lab 6.

2. Continue working on your final project. Feel free to ask questions of your peers, your instructor, or the lab assistants.

Unit 6 - Adding Dynamic Behavior using Java and ActiveX
CourseRoom Assignment: Discussion 1

Discussion 1:

Is Java safe?

Explain to other learners why you do or do not think Java is a safe technology to use on the client machine. Support your answer both by information in the text and by what you know from experience and browsing sites like The Source for Java™ Technology.

Unit 6 - Adding Dynamic Behavior using Java and ActiveX
CourseRoom Assignment: Discussion 2

Discussion 2:

Use of Active X

Explain where Active X could be most appropriately used, and why, OR explain where you would suggest not using it, and why. Do you agree or disagree with the concept that Active X is easy to use?

Unit 7 - The Future of HTML
Introduction and Objectives

In this unit, you will learn what XML is and how it is related to SGML. You will also see how XML complements HTML and in which contexts you would use XML. Note that the new standard is no longer HTML but XHTML. This, of course, implies that HTML is incorporating features and constraints of XML. You will learn how to use Document Type Definitions (DTD) and Schema to validate XML and how Extensible Style Language (XSL) can be used to create a displayable document.

Note that although XML is a relatively new technology, it is a technology that is gaining very wide and fast acceptance in the industry. It is being heavily used to manage documents and the display of documents in industry leading corporations (e.g., Hitachi, Framemaker). It will probably become one of the enabling technologies used in business-to-business and business-to-consumer transactions. As you study these chapters and learn more about XML, try to imagine the types of applications that could be facilitated through the use of XML.

Learning Objectives:
- Compare well-formed XML and valid XML and discuss when you would use them.
- Recognize the role XSL plays in enabling the display of XML.
- Explain why Document Type Definitions (DTD) and Schema are valuable to a Web-application developer.
- Identify what XHTML is and discuss why HTML is moving in that direction.

Unit 7 - The Future of HTML
Information Assignments

Assignments:

1. Read Deitel, Chapters 20 and 23.

2. Read the Introduction to XHTML located at Web Developer's Virtual Library – Introduction to XHTML, with eXamples.

3. Read W3C User Interface Domain Workshop – Shaping the Future of HTML regarding the future of HTML.

Unit 7 - The Future of HTML
Action Assignments

1. Continue working on your final project. Feel free to ask questions of your peers, your instructor, or the lab assistants.

Unit 7 - The Future of HTML
CourseRoom Assignment: Discussion 1

Discussion 1:

The Differences with HTML

What single feature, in your opinion, of XML separates it most from HTML? What are the pros and cons?

Unit 7 - The Future of HTML
CourseRoom Assignment: Discussion 2

Discussion 2:

The Use of XML on the Web

Do a Web search for the terms "Web Services" and "SOAP." Web Services utilizes XML extensively. Discuss why XML seems appropriate for use in Web Services.

Unit 8 - Web Site Deployment and Related Business Issues

Introduction and Objectives

There are many business issues to consider when deciding on how and where to host your Web site. In Powell's text, you have become familiar with the basic architecture of a Web server. In this unit, you will explore the Web servers provided by several vendors and note commonalities and differences. You will be introduced to some of the issues related to running and configuring your own Web server. You should be able to make some basic decisions about which type of Web hosting will serve various types of business units.

Learning Objectives:

- Recognize the architecture of a typical Web server.
- Analyze the architecture of Web servers related to the needs of various business contexts.
- Compare leading Web server products.
- Recognize the administrative responsibilities associated with running and configuring a Web server.

Unit 8 - Web Site Deployment and Related Business Issues
Action Assignments

1. Continue working on your final project. Feel free to ask questions of your peers, your instructor, or the lab assistants.

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Information Assignments

1. Access Chapter 32 on the CD accompanying the Deitel textbook.

2. Visit Web server vendor Web sites: Apache, Sun ONE (formerly Netscape/iPlanet), Microsoft IIS, etc.

3. Also, read the comparison article, "In the Middle: Enterprise-Ready Web App Servers," that describes the pros and cons of several Web servers and application servers. This link is a bit dated, but it does list the kinds of issues to consider when comparing Web-server and application-server vendors.

Unit 8 - Web Site Deployment and Related Business Issues
CourseRoom Assignment: Discussion 1

Discussion 1:

Web Site Collocation

Consider a particular Web site you might develop for your company or perhaps your own business or personal needs. Briefly describe your site. Explain your choice of collocation, virtual hosting, or local hosting for your site.

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CourseRoom Assignment: Discussion 2

Discussion 2:

Pick two of the three topics below and discuss how you would/will use or implement them on your site. Include the business rationale for your choices.

- Using "metas" for Search Engines.
- Content Management.
- Link Management.

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CourseRoom Assignment: Discussion 3

Discussion 3:

It is time to share the work you have been doing on your course project with your classmates. The purpose of this sharing is to gather feedback with which you are able to improve your draft project. It is important to understand that each learner is at a different place in his/her project development. As well, other learners are likely to have questions and concerns similar to your own. Therefore, take advantage of this opportunity to make the best out of the feedback process. Direct the feedback you will receive by asking specific questions you have about your project. Describe the tasks you have yet to complete. Ask questions within the project document.

Most importantly, help your classmates improve their own projects by providing feedback that is thoughtful, specific, and relevant. Help guide your classmates toward a course project that is well-defined, focused, insightful, and shows significance. Please respond to at least two other learners and provide feedback in regard to their final projects. Try to pick individuals who have not yet received feedback.

Next week you will be able to ask for feedback from the instructor after you have made the appropriate changes resulting from the peer review you receive this week.