

Course Outline for CIS 9103

WEB SITE DEVELOPMENT FOUNDATIONS

Effective: Fall 2011

I. CATALOG DESCRIPTION:

CIS 9103 — WEB SITE DEVELOPMENT FOUNDATIONS — 2.00 units

Web Site Development Foundations teaches essential Web page development skills and how to work as a productive part of a Web site development team. Develop Web sites using HTML/XHTML; write source code manually and using graphical user interface (GUI) authoring tools. Insert images, hyperlinks, tables, forms, frames, using style sheets to format Web page content, and implement fundamental design concepts. Validate your XHTML code, recognizing the importance of Internet marketing and search engine optimization. Connect Web pages to databases, identify e-commerce solutions, and how link Web site development to business goals. Throughout the course, students will learn how sites are developed as managed projects. NOTE: This course is one of a series in the Certified Internet Web Professional (CIW: www.ciwcertified.com) program.

2.00 Units Lecture

Grading Methods:

Discipline:

	<u>MIN</u>
Lecture Hours:	36.00
Total Hours:	36.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 4

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

- A. Demonstrate knowledge required to create a Web page using HTML, XHTML, authoring tools
- B. Add images and graphical formatting to HTML files, and create and edit images and audio
- C. Identify and use design and color principles for Web pages
- D. Create a basic HTML form that accepts user input
- E. Create HTML frames
- F. Define Extensible Markup Language (XML), and identify its features and appropriate use
- G. Identify essential Web site navigation issues, and ensure page/site accessibility.
- H. Define and apply essential aspects of the Cascading Style Sheets (CSS) standard, including CSS versions 1, 2 and 3.
 - I. Identify technologies for enhancing the user's Web experience, including programming languages, multimedia technologies
- J. Test and analyze Web site performance issues
- K. Identify steps in the Web site planning and development process
- L. Identify essential issues in developing and maintaining a Web site, including project management, testing, legal issues
- M. Define electronic commerce (e-commerce) and related technologies and concepts necessary to develop a secure, useful interface (i.e., storefront)
- N. Demonstrate knowledge of languages commonly used to provide database connectivity to Web sites
- O. Consider copyright and ethical issues when creating Web pages
- P. Design Web pages to industry standards

V. CONTENT:

- A. Introduction to Web Site Development
 - 1. Developing a Business Web Site
 - 2. Creating Web Pages
 - 3. Text Editors and Markup Languages
 - 4. Graphical User Interface (GUI) Editors
 - 5. Front-End Issues
 - 6. Back-End Issues
 - 7. The Habitat For Humanity Web Site
- B. Markup Language and Site Development Essentials
 - 1. History of Markup Languages
 - 2. Web Site Development Principles
- C. XHTML Coding
 - 1. Introduction to Using XHTML
 - 2. Markup Tags
 - 3. Document Structure Tags
 - 4. Web Site File Structure

5. Preparing Your Development Environment
6. Style Sheets
7. Paragraph Formatting and Block-Level Elements
8. Text-Level Elements
9. Lists
10. Good Coding Practice
- D. Horizontal Rules and Graphical Elements
 1. Horizontal Rules in XHTML
 2. Images in Web Pages
 3. Specifying Colors
 4. Page Colors and Backgrounds
 5. Specifying Font Information
 6. Web Design Issues
- E. Hyperlinks
 1. Introduction to Hyperlinks
 2. The Anchor Tag
 3. Creating Local Hyperlinks
 4. Creating External Hyperlinks
 5. Using Images as Hyperlinks
 6. Creating Internal Links
 7. Managing Hyperlinks
- F. HTML Tables
 1. Introduction to HTML Tables
 2. Table and Data Alignment Options
 3. Height and Width of Table Elements
 4. Column and Row Spanning
 5. Formatting Content in Tables
- G. Web Forms
 1. Introduction to Web Forms
 2. Web Forms and CGI
 3. Basic Tags for Creating Web Forms
 4. Web Form Fields
- H. Image Techniques
 1. Introduction to Web Image Techniques
 2. Image Maps
 3. Image Transparency
 4. Image Interlacing
 5. Animation
 6. Creating and Managing Images
- I. HTML Frames
 1. Introduction to XHTML Frames
 2. The <frameset> Tag
 3. The <frame> Tag
 4. The Frameset Document
 5. The <noframes> Tag
 6. Targeting Frames with Hyperlinks
 7. Specifying a Base Target
 8. Borders, Margins and Scrolling
 9. Inline Frames
 10. Appropriate Use of Frames
 11. Frames and Search Engine
 12. Optimization
- J. GUI HTML Editors
 1. Introduction to GUI HTML Editors
 2. Types of GUI Editors
 3. GUI HTML Editor Functionality
 4. Creating Web Pages with a GUI Editor
 5. HTML Text Editors vs. GUI Editors
 6. Previewing Pages and Validating Code
 7. Web Site Publishing
- K. Advanced Web Technologies
 1. Extending HTML
 2. Server-Side and Client-Side
 3. Languages
 4. Server-Side Languages
 5. Client-Side Languages
 6. Connecting to a Database
 7. Styling Techniques with CSS
 8. Dynamic HTML (DHTML)
 9. Document Object Model (DOM)
 10. Developing Web Pages for PDAs and Smart Clients
 11. Web Application Frameworks
 12. Creating Aliases with TinyURL
 13. Working with Advanced Web Technologies
 14. Hosting and Web Service Providers
- L. E-Commerce Practices
 1. Traditional Commerce vs. ECommerce
 2. E-Commerce Models
 3. Business and Internet Technologies
 4. Internet Marketing and Search
 5. Engine Optimization (SEO)
 6. E-Commerce Information-
 7. Formatting Technologies
 8. E-Commerce Payment Technologies
 9. Working in a Global Environment

VI. METHODS OF INSTRUCTION:

- A. Lecture and classroom discussion
- B. Computer demonstrations with overhead display panel

- C. Read text and other supplemental sources (example, Internet sites)
- D. Discussion boards
- E. PowerPoint presentations
- F. Chat rooms
- G. Lab experience: hands-on lab assignments

VII. TYPICAL ASSIGNMENTS:

A. Lecture a) Creating headings, paragraphs, and lists b) Adding Javascript to an HTML/XHTML document B. Reading a) Read the chapter on Introducing Working with Fonts, Colors, and Graphics b) Read the U.S. Department of Labor Bureau of Labor Statistics Occupational Outlook Handbook Web Developer jobs C. Hands-on lab assignment, such as: a) Use Notepad to create a HTML document b) Find web sites that explain HTML tags c) Find a web site and save and print its source code d) Upload your web page to a web host

VIII. EVALUATION:

A. **Methods**

- 1. Exams/Tests
- 2. Quizzes
- 3. Class Participation
- 4. Lab Activities
- 5. Other:
 - a. Methods
 - 1. Quizzes and final examination
 - 2. Graded hands-on lab assignments
 - 3. Web site evaluation
 - 4. Relevant active participation

B. **Frequency**

- 1. Frequency
 - a. Chapter quizzes, examinations (mid-term, final)
 - b. Weekly hands-on lab assignments to reinforce and demonstrate mastery of the various tools

IX. TYPICAL TEXTS:

- 1. Amstutz, Irina, and Ken Kozakis *Site Development Foundations v2.0.*, ComputerPrep, 2009.
- 2. DUI Kare *Guide to Web Site Development.*, Course Technology, 2009.

X. OTHER MATERIALS REQUIRED OF STUDENTS:

- A. Mobile storage device: web storage, flash drives, CD RW
- B. Access to the World Wide Web with any major Web browser