Course Title: Markup Languages Advanced Authoring

Course Number: DSN 6050

I. MAJOR INSTRUCTIONAL GOALS

To gain a broad based understanding of the key markup languages and advanced authoring scripting languages and protocols used in modern web design and development.

Goal A: Demonstrate a thorough knowledge of HTML.

Learning Outcomes

A-1 Recognize the components of an HTML file and create such a file.
A-2 Format paragraphs and characters using HTML.
A-3 Link to local files and Web pages from their Web pages.
A-4 Add graphics and sound to their Web pages using HTML.
A-5 Create different kinds of lists to their Web page using HTML.
A-6 Create multi-column and multi-row tables using HTML.
A-7 Set background colors and graphics for Web pages.
A-8 Evaluate Web page design and consider design issues that affect web pages.
A-9 Add links to non-Web Internet sites from their Web pages.

Goal B: Demonstrate a thorough knowledge of enhancing web pages/sites with JavaScript.

Learning Outcomes

B-1 Recognize the types of enhancements JavaScript can make to Web pages to make them more engaging to the Web user, identify how and where JavaScript can be placed in a Web page, and use the JavaScript error-handling feature of your browser to find and correct scripting errors.
B-2 Describe the basic concepts of the JavaScript language: objects, event handling, and functions.
B-3 Work with object references and control structures.
B-4 Write the JavaScript code to swap images that respond to a mouse click, display images that correspond to the mouse rolling over a link, and automatically cycle through a series of images to create a Web page slide show.
B-5 Solve the challenge of cross-browser incompatibility by displaying a different Web page, with different enhancements, for both Navigator and Internet Explorer; and write the JavaScript code to change the style and positioning attributes of Web page elements, while a page is loaded in either browser.
B-6 Write the JavaScript code to dynamically load pages into frames, and load new pages into customized windows.
B-7 Write JavaScript applications for processing and validating user-entered data on Web page forms.

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Goal C: Demonstrate a thorough knowledge of XML

Learning Outcomes

C-1 Explain the differences between HTML, SGML and XML.
C-2 Create well formed XML.
C-3 Create valid XML.
C-4 Create a DTD.
C-5 Display XML documents in a browser using CSS.
C-6 Display XML documents in a browser using XSL.
C-7 Link to files outside of an XML document.

Goal D: Demonstrate a thorough knowledge of basic SQL/mySQL

Learning Outcomes

D-1 Define what a relational database is and identify some uses for the SQL language.
D-2 Recognize proper syntax for an SQL statement.
D-3 Use aggregate functions, column aliases, and mathematical expressions in a query statement.
D-4 Use the WHERE clause to select specific rows of information from a database.
D-5 Search for specific character strings or numeric data in a database.
D-6 Write queries that return both aggregate and non-aggregate information simultaneously.
D-7 Write queries that select information from two tables simultaneously.
D-8 Generate a query and its report using Access 2000/XP/MAC

Goal E: Demonstrate a thorough knowledge of basic WML/WAP wireless programming/authoring

Learning Outcomes

E-1 Understand the basic concepts of WAP and WML and how the wireless Internet works.
E-2 Write simple WML decks and display them on a simulator.
E-3 Create hyperlinks that allow a user to navigate between the cards of a deck.
E-4 Create advanced behavior in your WML deck, including setting up timers and programming the behavior of soft buttons.
E-5 Provide ways for users to type in input or select from selection lists.
E-6 Use WMLScript as a client-side scripting language.
E-7 Instruct a WML deck to make one touch phone calls.
E-8 Understand the principles of planning and deploying a WML site.
E-9 Program interactive WML sites.
E-10 Design WML sites that are user friendly and effectively serve business goals.

II. CLASS PARTICIPATION:

Students are expected to attend class and participate actively and in a positive way. Questions and relevant observations are encouraged and enrich the experience of the entire class.

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Computers in the classrooms are intended to be used as tools to enhance the students' learning experience. Instant messaging, gaming, emailing, and surfing the web are distractions to the student, the surrounding students, and the instructor and constitute inappropriate behavior. Students are ethically obliged to avoid these and similar practices.

III. CLASS SCHEDULE - OUTLINES – READINGS:

A “structured external assignment” will constitute the closing activity for this course. Students will be asked to submit a topic for instructor approval that integrates IT concepts discussed in class into the student’s vocational or educational interests or workaday environment. Ideally, a “planning paper” will result that is topical, and possesses significant utility within the student’s job-related responsibilities or educational/vocational interests.

Instructor will include weekly outline to reflect what has to be achieved by the student in the 5 hours Out-of-Classroom project (Structured External Assignment) including submission deadline and grading criteria.

Semester = 15 weeks with a reading week at Week 8
Blocks = 7 weeks, with a Reading Week between Blocks I and II.

The syllabus must reflect which preliminary reading all students should complete during the week prior to the start of the course.

Note: Grades are due five (5) working days after your last class session and are to be submitted directly to the registrar.

Note: A cooperative and participative learning strategy will be deployed with every expectation that the student will contribute heavily, in a self-directed action-learning mode, to this educational experience. Students should anticipate that assignments, and this syllabus, will be adjusted to match the pace of the course, the class size, and to meet the needs of individual students.