Course Information Form

Discipline: Computer Science & Information Systems
Course Title: Advanced Web Development

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Catalog Description
Building on the topics discussed in CSIS 128, this course provides in-depth coverage of XHTML and client-side scripting, with an introduction to current Web development topics. Topics include DHTML, e-commerce, security, Web database programming, server-side scripting, XML, and Web site architecture and configuration.

Prerequisites
CSIS 128

Expected Student Outcomes in the Course (ESO)
Upon completion of this course, the student will be able to:

1. Demonstrate advanced HTML competency by creating Web pages that incorporate the following elements: tables, ordered and unordered lists, META tags, forms and common form elements.
2. Contrast and compare the different methods of HTML forms, and use the methods appropriately in Web forms.
4. Demonstrate understanding of the DHTML object model by using the DHTML object collections to create dynamic Web pages.
5. Explain shopping cart technology as it applies to e-commerce.
6. Use SSL to encrypt information transmitted via a Web form.
7. Demonstrate understanding of the relational database model by using basic SQL to retrieve information using a Web page form.
8. Configure a data source on a Web server.
9. Create basic server-side scripts that dynamically display information on a Web page.
10. Demonstrate an understanding of XML by creating document type definitions, XML documents, and new markup tags.
11. Create virtual directories on a Web server, and configure security on those directories.

General Education Outcomes (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.
PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Use industry specific software and/or apply troubleshooting skills to solve problems.
2. Create and defend solutions to real life business challenges.
3. Recognize the need for continued professional development.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Hands-on projects (1-11)
2. Exams/Quizzes (1-11)
3. Class Discussion (1-11)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. HTML review
   A. HTML
      1. Common tags, text formatting, links, special characters
      2. Ordered, unordered, and nested lists
      3. HTML tables and formatting
   B. HTML forms
      1. Form methods and properties
      2. <INPUT> types and applications

II. Client-side scripting
   A. Mathematical operations
   B. Equality and relational operators
   C. Control structures
   D. Equality and relational operators
   E. Control structures
   F. Algorithms and functions
   G. Logical operators
   H. Recursion and iteration
   I. Arrays
   J. Objects, method, and properties

III. Dynamic HTML object model and collections
   A. Window, document, history, navigator, location, event, screen, and body objects
   B. Frames, anchors, applets, embeds, filters, forms, images, links, plugins, scripts, styleSheet collections

IV. Electronic Commerce and Security
   A. <META> tags
   B. Shopping cart technology
   C. Public key cryptology
   D. Secure sockets layer
   E. E-commerce technologies