

## Based on ABET ETAC Student Learning Outcomes

**1. Course Number and Name:**

CSET 3100 Advanced Website Design

**2. Credits and Contact hours:**

Credits: 3 hours, Contact: 3 lecture hours

**3. Instructor's or course coordinator's name:**

Hong Wang

**4. Text book, title, author, and year:**

HTML & XHTML: The Definitive Guide, 5<sup>th</sup> Edition, Musciano and Kennedy, 2002

**a. Other supplemental materials:**

Course Web Site and Additional web References as assigned by the instructor

**5. Specific Course Information:**

**a. Brief description of the content of the course (catalog description):**

This course covers the creation of HTML forms, creation of static and animated web graphics, Dynamic Fonts, SMIL (Synchronized Multimedia Integration Language) as it relates to G2, Realtext, Realpix and XML. The course also covers Frames, META Tags, Optimizing Speed, Cookies, Image mapping (from both server-side and the client-side), HTML, tables and Shockwave.

**b. Pre-requisites, or co-requisites:**

CSET 1100

**6. Specific goals for the course:**

**a. Specific outcomes of instruction:**

1. Be able to design web sites which use HTML tables, forms, frames and Cascading Style Sheets.
2. Learn the advantages of HTML tables, forms, frames Cascading Style Sheets and CSS box model and when they are best utilized.
3. Provide definitions and explanations for a large number of technical terms and acronyms related to web site design.
4. Apply the techniques and features of imagemaps to web site navigation.
5. Understand the issues related to web graphics (size versus resolution) as well as how to create, optimize, and display graphic images.
6. Be able to create and edit simple animated web graphics.
7. Apply the concepts learned in this course to the development of web-based information services that provide the visitor with an effective and enjoyable experience.
8. Learn how to employ meta tags and HTML cookies to improve the experience of web site visitors.
9. Be able to create, validate, transform and display XML files.
10. Be able to effectively use HTML5 functionalities

**b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course: d, i, g**

d. An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives.

i. An understanding of a commitment to address professional and ethical responsibilities including respect for diversity.

g. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.

**7. Brief list of topics to be covered:**

1. Social and Ethical Responsibilities Related to Web Site Design and Hosting
2. Basic Unix commands, Connecting to the Class Server Via ssh, and Preparing Your Directory for Web Access
3. Transferring Files To Your Website
4. Editing HTML Documents
5. HTML Tables
6. HTML Forms
7. HTML Lists
8. A Brief Introduction to Dynamic Web Site Content Via CGI using Perl
9. HTML Frames and Inline Frames
10. Meta Tags
11. IE Page Transitions
12. Cascading Style Sheets
13. Graphics: HTML Tags, CSS and Graphics Tags, Single Pixels & Other Tricks
14. Graphics: JavaScript
15. Graphics: Image Types & Optimization Tutorials
16. Graphics: Animated Graphics
17. HTML Colors & Image Tools
18. Imagemaps
19. Imagemap Via JavaScript
20. Web-Site Design Considerations
21. File Format Considerations
22. EXtensible Markup Language
23. DTDs, Namespaces and XML Schemas
24. EXtensible Stylesheet Language
25. XPath & XSL FO
26. Creating and Using Client-Side Cookies
27. Synchronized Multimedia Integration Language (SMIL)
28. RealPix
29. Flash and SWiSHmax (an alternative to Macromedia Flash)

30. HTML 5.