COURSE DESCRIPTION

Department and Course Number	CS 120	**Course Coordinator**	Chengyu Sun
Course Title	Introduction to Web Site Development	**Total Credits**	3

Current Catalog Description:

Development of client-side web pages using hypertext markup language ([d][x]html), Cascading Style Sheets (CSS). JavaScript, and computer animation software.

Textbooks:

Lehnert, Wendy., *The Web Wizard's Guide to HTML.*, Prentice Hall, 2002.

Estrella, Steven G., *The Web Wizard's Guide to DHTML and CSS*, Prentice Hall, 2003.

References:

Jon, Duckett. *Beginning Web Programming with HTML, XHTML, and CSS*, Wrox, 2004.

Elizabeth, Castro. *HTML for the World Wide Web with XHTML and CSS: Visual QuickStart Guide*, 5th *Edition,* Peachpit Press, 2003.

Course Goals:

At the end of the course, students have a working knowledge of HTML, including the common tags and their attributes and how they are interpreted by web browsers are able to
- Create web sites with static HTML content.
- Use Cascading Style Sheets (CSS) to control the look and feel of a web site.
- Use JavaScript to add interactivity to web pages.
- Use Flash to create simple animation.
- Understand the syntax of XML and XHTML.

These course goals contribute to the success of **Student Learning Outcomes 1.d, 5, and 6**.

Prerequisites by Topic:

Computer literacy.

Major Topics Covered in the Course:

- Web servers and web sites
- HTML basics
- Hyperlinks and images
- Tables and frames

- CSS
- Forms
- Basic JavaScript
- Advanced JavaScript
- DHTML, XHTML, and XML
- Flash animation

Laboratory Projects (specify number of weeks on each):

Each week the students complete a 1.5-hour lab project on a selected topic:

- Week 1: Design and setup a web site with 2 to 3 simple HTML pages, and one of the pages is an index page.

- Week 2: Add hyperlinks, images, and styling (fonts and colors) to the pages.

- Week 3: Use tables and frames to control page layout.

- Week 4: Use CSS to control the look and feel of the web site.

- Week 5: More exercises with CSS.

- Week 6: Create forms to take user input.

- Week 7: Use JavaScript to process user input.

- Week 8: More exercises on JavaScript.

- Week 9: Use Flash to create menus and navigation controls.

- Week 10: Create simple Flash animation.

Estimate Curriculum Category Content (Quarter Hours)

Area	Core	Advanced	Area	Core	Advanced
Algorithms			Data Structures		
Software Design	1.0		Prog. Languages	2.0	
Comp. Arch.					

Oral and Written Communications:

Written documentation of software built in labs and homework assignments.

Social and Ethical Issues:

No significant component.

Theoretical Content:

No significant component.

Problem Analysis:

Students are given the opportunity to create a web site for themselves, their families, or their business. The students decide what content they want to host on their websites, and what visual and functional features they want to implement in order to attract as many visitors as possible.

Solution Design:

Solution design in this course mostly involves implementing the desired visual and functional features with appropriate web technologies such as HTML, CSS, Flash, and JavaScript. Students should understand not only the capabilities of each technology, but also their strengths and weaknesses in terms of bandwidth, other resources required, browser support, productivity, and implications for scalability and maintenance.