

Creating Web Applications with HTML5 Summer 2011

Class Meeting Information

This course meets online from June 27, 2011 to August 21, 2011

Instructor Information

Name: Kevin Hanegan

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Kevin Hanegan is the author of 4 programming books: *Building State-of-the-Art Web Pages*, *Custom CGI Scripting with Perl*, *Practical Guide to Curl*, and *Building Solutions with the DecisionSite Analytics Platform*. He has worked for a variety of software companies, universities, and corporate training centers as a course developer, trainer and consultant. He currently is the Director of Educational Services for TIBCO Software.

Prerequisites

I&CSCI X471.03 Web Development with HTML and I&CSCI X471.04 JavaScript Programming.

Course Description

HTML5 makes it easier for web developers to place and manage interactive elements on a web page. This course will expand on the core features of HTML and JavaScript to highlight the various capabilities built-in to HTML5 for creating robust and rich Internet Applications. Topics include how to create graphics and animations, how to embed audio and video, how to provide offline storage and access, how to determine visitor's location, and how to add semantic elements into your web site.

Course Objectives

After completing this course you will be able to

- Create and Web Applications using HTML5
- Utilize the HTML5 JavaScript APIs
- Understand the Browser Support for various HTML5 capabilities
- Understand what Microformats are and how to use them in your pages
- Use the new and updated elements from HTML4

Course Text or Online Resources

No Textbook just online notes and video lectures

Course Outline

Introduction	Orientation
Topics	Introductions
Assignments	No Assignment this week
Session 1	Introduction to HTML5
Topics	<ul style="list-style-type: none"> • Introduction to HTML5 • Detecting HTML5 and Browser Support
Assignments	Exercise 1: Updating a Page to be use HTML5
Session 2	Updated Elements and Microformats
Topics	<ul style="list-style-type: none"> • Semantic Tags • Updated Elements • Obsolete Elements • Text Annotations
Assignments	Exercise 1: Move Element Up and Down Dynamically Exercise 2: Code walkthrough of Positioning cript
Session 3	Drawing in HTML5
Topics	<ul style="list-style-type: none"> • Using the Canvas Tag • Drawing Tools • Effects • Transformations • Loading Data
Assignments	Exercise 1: Create a Simple Diagram and Graph Exercise 2: Create an Animation
Session 4	Multimedia in HTML5
Topics	<ul style="list-style-type: none"> • Using the Video tag • Using the Audio tag
Assignments	Exercise 1: Embedded a Video Exercise 2: Embedded an Audio file
Session 5	Geolocation
Topics	<ul style="list-style-type: none"> • Standard Mode • Continuous Updates
Assignments	Exercise 1: Finding your location
Session 6	Persistence and Offline Mode
Topics	<ul style="list-style-type: none"> • Client side storage methodologies (session, local, and database) • Using the Cache Manifest and Application Cache API
Assignments	Exercise 1: Creating a TODO list
Session 7	Using HTML5 Forms
Topics	<ul style="list-style-type: none"> • New Input types • New pseudo classes • New Browser Validation
Assignments	Exercise 1: Creating a HTML5 Contact Us Form

Evaluation and Grading

In this course, you will be evaluated in the following way:

Individual Assignments (13 points each)	91%
Participation in class discussions	9%
Total	100%

Unexcused late assignments are penalized 50% off. Assignments are spaced one week apart and are due on Sunday midnight PST. I realize things come up and people have other things to do, so if you are going to be late with an assignment, please email me before hand otherwise it will be considered unexcused.

Grading Scale

- A = 90% – 100%
- B = 80% – 89%
- C = 70% – 79%
- D = 60% – 69%