MET CS701 OL - Rich Internet Application Development

Instructor

Suresh Kalathur, Ph.D.
Assistant Professor, Computer Science Dept.
Boston Univeristy Metropolitan College
808 Commonwealth Ave, Room 250
Boston, MA 02215

E-mail: kalathur@bu.edu
URL: http://kalathur.com/bu
Phone: 617-358-0006
Fax: 617-353-2367

Course Description

The Rich Internet Application (RIA) Development course concentrates primarily on building rich client web applications in the browser for desktop and mobile devices. The course is divided into various modules covering in depth the following technologies: HTML5, jQuery UI & Mobile, and AngularJS. Along with the fundamentals underlying these technologies, several applications will be showcased as case studies. Students work with these technologies starting with simple applications and then examining real world complex applications. At the end of this course, students would have mastered the latest and widely used RIA methodologies.

Course Prerequisites

CS520 (*Information Structures*) and **CS601**(*Web Application Development*), or instructor's consent.

Course Grading Policy

The course grade will be based on active class participation and discussions (10%), programming assignments (30%), proctored final exam (30%), and a term project (30%). Assignments are expected to be submitted by their respective due dates. Late submissions carry a penalty.

Course Web Site

- **http://onlinecampus.bu.edu**

References

On the Web

- HTML5 Rocks
- jQuery Mobile Framework
- AngularJS

Reference Books

- "*Pro HTML5 Programming, 2nd edition*", by Peter Lubbers, Brian Albers, and Frank Salim, APress, 2011. ISBN13: 978-1-4302-3864-5.**(Reference book)**
- "*AngularJS: Up & Running*", by Shyam Seshadri and Brad Green, O'Reilly, 2014. ISBN13: 978-1-4919-0194-6.**(Reference book)**

Student Conduct Code

Please review the academic conduct code

Tentative Course Schedule

- Module 1 -- Advanced JavaScript & HTML5, Part1
  - JavaScript functions, JSON, Constructors, Inheritance
  - Scopes, Patterns, Namespaces
  - HTML5 Overview, Graphics (Canvas & SVG)
  - Audio & Video, Forms
- Module 2 -- HTML5, Part2
  - Drag and Drop, Geolocation
  - Web Workers, Web Storage
  - File API
- Module 3 -- AngularJS, Part1
  - Model-View-Controller pattern
  - Data Binding
  - Creating Views, Defining Controllers, Building Models
  - Modules, Filters
- Module 4 -- AngularJS, Part2
  - Services, Server Interaction
  - Directives
  - Routing

- Module 5 -- jQuery and jQuery UI
    - jQuery Review
    - jQuery UI
    - jQuery Plugins
- Module 6 -- jQuery Mobile
    - Navigation and Views
    - Form Elements and Lists
    - Server Integration
- **Final Project Presentations**
- **Final Exam**