## CS601: Web Application Development

This class focuses on HTML, CSS and JavaScript using ReactJS. Students should bring their laptops to every class for the hands-on laboratories. (Most of our learning comes from hands-on training and code reviews with the instructor during class.)

## Instructor

asheehan@bu.edu Office hours - By appointment (Please reserve and time & place with him.)

## Clasroom Location

"CAS" - 725 Commonwealth Avenue. Room 426

## Required eBooks

- HTML and CSS Design and Build Websites (Free PDF/online)
  https://medium.com/easyread/e-book-node-js-notes-for-professionals-book-e13db79d7b08
- Exploring ES6
  http://exploringjs.com/es6.html
- ReactJS - Notes for Professionals
  https://books.goalkicker.com/ReactJSBook/
- jQuery
  https://books.goalkicker.com/jQueryBook/
- Eloquent JavaScript
  https://eloquentjavascript.net/Eloquent_JavaScript.pdf

## Course Policies

- Homework will not be accepted after the due date.
- If you do not participate in class or do not show up, you probably will not succeed.

## Grading Policies

- Homework/Laboratories: 25%
- Midterm Examination: 25%
- Term Project: 25%
- Final Examination: 25%

## Schedule

| Week | Topics | Readings |
|------|--------|----------|
| May 21 | <ul><li>Course Introduction</li><li>Introduction to ReactJS</li><li>Block vs. Inline elements, Lists, Headers, Links, Tables and Images</li></ul> | <ul><li>Chapters 1-6 in ReactJS Notes</li><li>Duckett: Chapters 1-6</li></ul> |
| May 28 | <ul><li>Event Handling with addEventListener() and jQuery</li><li>HTML Forms, Audio and Video Elements</li><li>ReactJS component lifecycle methods</li><li>Introduction to Cascading Style Sheets</li></ul> | <ul><li>https://reactjs.org/</li><li>Duckett: Chapters 7,8,9,10</li><li>Eloquent: Chapter 15</li></ul> |
| June 4 | <ul><li>Using CSS Selectors</li><li>Routing in ReactJS</li><li>Expressions, Control Structures (Review) and Continuation on Event Handling</li></ul> | <ul><li>https://reacttraining.com/react-router/</li></ul> |
| June 11 | <ul><li>Function Declarations, Expressions and Arrows</li><li>JavaScript Classes</li><li>Modules</li></ul> | <ul><li>Eloquent: Chapters 3, 5, 6 and 10</li></ul> |

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| June 18 | Review and Practice for Midterm Exam | |
| June 25 | Midterm Examination (All material up this week) | |
| July 2 | • Ajax: Using XHR, jQuery and Fetch/Axios | • https://developer.mozilla.org/en-US/docs/Web/API/Fetch_API<br>• jQuery PDF: Chapter 16<br>• Eloquent: Chapter 18 |
| July 9 | • Continuation of Ajax<br>• Data Structures: Arrays, Sets, Maps and JSON | • developer.mozilla.com (for Sets and Maps) |
| July 16 | • Promises and Callbacks | • Eloquent: Chapters 11 |
| July 23 | • REST and Spread<br>• Destructuring | • http://exploringjs.com/es6/ch_destructuring.html |
| July 30 | Term Project Presentations (Mandatory) | |
| August 6 | Final Exam | |