Course Syllabus: IT 4203 Advanced Web Development
Fall 2019
Kennesaw State University

Jack Zheng
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Note

This syllabus provides a general guideline for the conduct of this course. However, deviations may be necessary and will be notified during the semester.

Course Description

This course covers advanced topics on web site and application development that include server side and client technologies, web services and APIs.

In this particular semester, this course covers more advanced topics on web application development with a focus on single-page web applications, serverless applications, and web APIs. Building upon your fundamental frontend web development skills, this course enhances web development skills at the client side, utilizing tools like jQuery, JSON, and AJAX. Students will complete one major development project upon finishing this course.

Course objectives/learning outcomes

1. Explain modern web application architectures and related concepts like single page application and serverless application.
2. Demonstrate use of advanced applications of JavaScript and CSS3.
3. Apply and integrate AJAX techniques to create asynchronous applications.
4. Examine and consume popular RESTful web APIs.
5. Build a custom real-world single-page serverless web application.

Course features (fall 2019)

1. Use popular web APIs like Google Books API.
2. Utilize major SPA user interface design patterns and best practices.
3. Deploy projects on the Microsoft Azure Platform.

Prerequisites

1. IT 3203 (official requirement): introductory web application concepts and development experience with HTML, CSS, JavaScript, DHTML, PHP
2. CSE 3153 (recommended): beginner experience of relational database system and SQL.
3. IT 3883 (recommended): fundamental development experience with C# and Visual Studio.

Class meet location and time

CRN xxxxx

Instructor

Jack G. Zheng, Associate Professor, IT Department

Office: J-383 Email: gzheng@kennesaw.edu (preferred) Phone: 470-578-5036

Office hours:

Email Policy

1. Email is a great way of communication if you write the email subject like this:
IT4203 – *[put your real subject here]*

Emails will be responded within the next business day if the subject line conforms to the format above, and directly sent to my KSU email account above.

2. Per FERPA regulation, please use your university email to communicate with instructors. This can verify you identity and protect privacy. I reserve the right not to reply any email that I cannot verify sender's identity.

Emails without proper subject line or unverified sender address are likely to be categorized as spam, and are NOT guaranteed to be replied.

Teaching style and belief

Generally I follow the principles of active learning, which emphasizes on learners' active participation and exploration. Please get more details here:

- http://jackzheng.net/teaching/teaching-belief.aspx
- http://jackzheng.net/teaching/student-comments.aspx

Course Conduct

Course content/topics

This course follows a project-driven approach. The course content is basically organized as four milestones with learning modules. The following table is only a tentative overview of the course content and schedule. The more detailed and most updated schedule will be provided in a separate schedule file in D2L.

Week	Milestone	Learning Module #	Module	Student Work*
1			Orientation	
2		1	Overview	
3	#1	2	jQuery	
4		3	JSON	
5			Work on project and quiz	Q1, M1
6	#2	4	REST	
7		5	Web APIs	
8			Work on project and quiz	Q2, M2
9	#3	6	AJAX	
10		7	AJAX Services	
11			Work on project and quiz	Q3, M3
12	#4	8	Data Display	
13		9	Data Exploration	
14			Work on project and quiz	Q4, M4
15				Project due

Each module provides a study guide which detailed learning objectives, readings, and tasks. It's critical to follow these study guides. The time to complete each module varies. Generally, modules are designed on an average of 8 to 12 hours to complete (for most of the people who have met the prerequisites), depending on individual background and prior experiences. Generally all module tasks should be completed within one week from the corresponding class date, however, some **required readings/research tasks** must be completed **by the planned class date**. Please follow the study guides closely.

Grading

Item	Points
Quiz (4)	40
Individual Project (4 milestones)	40
Term project	20
Total	*100*

Total	Grade
=>90	A
=>80	B
=>70	C
=>60	D
<60	F

More details about each item will be provided in separate documents in dedicated content sections in D2L. Generally all grades should be available within 10 days from the due date.

Course Materials and Resources

Course websites: D2L Brightspace

- It's important to know how to use this learning management system for: following learning modules, submitting assignments, checking grades and feedback, downloading files, participating discussion boards, etc.
- Please check the course site regularly for important announcements and other issues.

Learning materials

- Required textbook: none. There is no textbook assigned. All readings are assigned in each learning module. Knowledge of the readings will reduce the time it takes you to finish lab assignments.
- Learning materials are also available at http://it4203.azurewebsites.net – for reference only, materials may not be updated to the most recent semester.
- Recommended references and resources:
    - Will provided in each module.

Required computing environment

- A public web hosting space with a domain name; must support file transfer service and source code level change. These hosting services run from free to a few bucks a month. For example, GoDadddy.com provides such a service.
- Code editors: Notepad++, VS Code (recommended), etc. or just use the one you prefer.

General Class Policies for all of Dr. Jack Zheng's Courses

!! Please view the separate document online at https://goo.gl/G0Qd83 or request a copy by email.

University Policies

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