



IT 4403 Advanced Mobile and Web Applications

Fall 2020

Kennesaw State University

Jack Zheng
Last updated: July 10, 2020

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 and mobile applications with a focus on modern web application architectures and mobile friendly user interfaces. Students will complete one major development project using the latest web technologies.

In this particular semester we will have a focus on single-page web applications and web APIs, which has been the latest trends in modern web application development. Building upon your fundamental web site design and client-side development skills, this course enhance your web development skills at the client side, utilizing jQuery, JSON, and AJAX. You will complete at least one major project upon finishing this course.

Course objectives/learning outcomes

1. Explain modern web application architectures and related concepts.
2. Compare major mobile and web development approaches, platforms, and tools.
3. Examine and use popular web APIs.
4. Apply appropriate web and mobile user interface design principles and techniques.
5. Create a cross-platform mobile web application using the latest web technologies and services.

Course features

1. Take a project-based learning approach. All course work will be driven by a hands-on development project.
2. Key technologies: AJAX, REST, SPA, JSON, jQuery,
3. Program with JSON and RESTful web APIs.
4. Exposure to popular web APIs like Google Books API.
5. Utilize major SPA user interface design patterns and best practices.
6. Deploy projects on mainstream cloud services or public commercial grade servers.

Prerequisites

1. Grade of C or better in IT3203 Introduction to Web Technologies and Applications

Class meet location and time

CRN xxxxx W01 Online

Instructor

Jack G. Zheng, Associate Professor, IT Department

Office: J-383

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

Office hours: MW 1-3PM, W 4:30-6:30PM

Email Policy

1. Email is a great way of communication if you write the email subject like this:

IT4403 – [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 your 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	Work Due and Other Reminders*
1			Orientation	
2		1	SPA Overview	
3		2	Mobile Web Overview	
4	#1	3	jQuery	
5		4	JSON	Q1, M1
6	#2	5	REST	
7		6	Web APIs	Q2, M2
8	#3	7	AJAX	
9		8	AJAX Services	Q3, M3
10	#4	9	Data Display	
11		10	Data Exploration	Q4, M4
12		11	RWD	
13		12	UI Framework	
14			Work on Project	
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
<i>Total</i>	<i>100</i>

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.

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://it4403.jackzheng.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, GoDaddy.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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