Course Syllabus: IT 4213 Mobile Web Development
Kennesaw State University

Jack Zheng Spring 2020 - Last updated: Jan 6, 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 introduces the concepts, practices, and technologies to design, develop, and manage cross-platform web sites and applications running on modern mobile devices. It is one of the upper level elective courses in the mobile and web track for BSIT.

Mobile devices (especially touchscreen smartphones and tablets) have prevailed recently as one of the major computing devices. More and more website visits are coming from mobile devices. The industry has a strong need to upgrade or redesign many websites and applications to be mobile friendly. This course will be one of the major offerings that meet student's needs and enhance their web development skills. Those who want to develop a career in web application development are strongly recommended to take this course to know and practice the latest web development technologies.

We do have plenty of chances for hands-on exercises, but the course will not emphasize any particular technique or tool that can make a particular webpage effect. Rather the course provides higher level survey of technologies, principles, strategies, and frameworks. The class will focus on UI design and programming as well.

Course objectives/learning outcomes

1. Compare and contrast user interactions with web sites and applications delivered as desktop web, mobile web, and mobile application.
2. Apply appropriate mobile user interface design principles and techniques to create responsive and touch friendly web user interfaces.
3. Create cross platform web sites and applications using the latest web technologies and programming languages.
4. Identify and use the appropriate development technologies, tools, and frameworks for mobile web development.

Course features

- Intensive coverage on responsive web design and mobile friendly web design.
- Hands-on experience with Microsoft Azure cloud platform or Github Pages hosting.
- Use live web applications and web sites as practical examples to understand concepts and best practices.
- Allow students to explore their own interests and learn from the unique experience though a class project.

Prerequisites

1. Required: IT 3203 Introduction to Web Development and CSE 3203 Overview of Mobile Systems
2. Recommended: IT 4203 Advanced Web Development and IT 3883 Advanced Application Development.

Class meet location and time

13818/W01 Online

Instructor

Dr. Jack G. Zheng, Associate Professor, IT Department

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

Office hours: T 2-5:00PM, online (generally 9AM-5PM on weekdays, or by appointment)

Email Policy

1. Email is a great way of communication if you write the email subject like this:
IT 4213 – *[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.cshtml
- http://jackzheng.net/teaching/student-comments.cshtml

Course Conduct

Course content/topics

The course content is organized by learning modules. The following table is only a general overview of the course content and schedule. The more detailed and most updated schedule will be provided in a separate file in D2L.

Week	Module	Topics/Activities	Work Due and Other Reminders*
1	Orientation	Course orientation, web basics review	
2	Overview	Mobile web overview	
3	Mobile Environment	Mobile device features, mobile browser	
4	Dev Approaches	Overview of RWD, Adaptive, RESS	A1
5	General Principles	Mobile UX, mobile UI principles/practices	
6	Layout Design	Layout design	A2
7		*Project brief*	Test 1
8	Menu Design	Mobile web menu patterns and techniques	2/26 midpoint
9	Data Design	Displaying data items	A3
10	Form Design	User inputs and forms design	
11	Media Design	Presenting images, graphics, and videos	A4
12		*Project progress check/advising*	Test 2
13		Spring Break	
14	UI Framework	Responsive UI frameworks, Bootstrap	A5
15	UI Design Tools	Wireframing	
16	Testing and Eval	Website mobile friendliness study and testing	A6
17			Final project report

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
Tests (2)	20
Assignments/Labs (6)	60
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 "**Student Works**" content sections in the D2L Brightspace. Generally all grades should be available within 10 days from the due date.

Course Materials and Resources

Official course websites: D2L Brightspace https://kennesaw.view.usg.edu

- Refer to this website for all official teaching and learning materials and activities.
- 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 and learning materials are provided in each learning module.
- Open learning materials at http://it4213.azurewebsites.net – This course is part of the Affordable Learning Georgia Textbook Transformation Grants which aim to lower the cost of learning materials. All materials presented on this site are free to the public (but may not be updated to this semester).
- Recommended references and resources:
  - Programming the Mobile Web: http://www.amazon.com/dp/1449334970
  - https://www.amazon.com/Responsive-Web-Design-HTML5-CSS3/dp/1784398934/
  - https://mobiforge.com
  - https://www.smashingmagazine.com
  - http://www.mobilexweb.com/

Required computing environment

- Code editor: I recommend Notepad++ http://notepad-plus-plus.org/ or VS Code https://code.visualstudio.com
- Web hosting/server: Microsoft Azure/IIS https://azure.microsoft.com (basic tier free subscription)
- Other software: software that can open Word/Power Point/PDF files and ZIP files.
- A smart mobile device (smart phone or tablet)

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

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