

Syllabus:
CIS 394 – Introduction to Web and Mobile Programming
Mobile Technologies for the Enterprise:

Fall 2016
SLN 93553

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1. Course Description

This course examines the business, platform, and technical aspects of mobile app paradigms. Mobile implies networking technologies are in play, thus the fundamental enabling networking technologies and tools are presented. There are four major methodologies to mobile app development, 1) prototyping, 2) Responsive Web, 3) Hybrid, and 4) Native approaches. This course will empower students to develop in the first three, and expose them to the challenges and opportunities of the Native approach. Students will demonstrate mastery by developing an applied project for an enterprise or startup.

2. W. P. Carey School of Business Learning Goals

The Undergraduate Program of the W.P. Carey School of Business has established the following learning goals for its graduates:

- 2.1.1. Critical Thinking
- 2.1.2. Communication
- 2.1.3. Discipline Specific Knowledge
- 2.1.4. Ethical Awareness and Reasoning
- 2.1.5. Global Awareness

3. Teaching Philosophy

I believe that students have an amazing capacity to learn, and that they progress through stages of learning as described by Bloom. Learning about technology begins with knowledge acquisition, then moves to comprehension, develops into the ability to apply, once applied, to critique,

construction and then evaluation of systems. It is my goal to create a structured environment where this type of learning can be fostered and that there be opportunities for students to demonstrate mastery of the topics with assessments, assignments, and projects.

4. Course Objectives

There are three major objectives for this course:

- 4.1.1. **Technical Goals:** For students to know, comprehend, appreciate, and utilize essential network technologies and software tools to develop mobile apps from various platforms and strategies, and to incorporate an awareness of the Internet of Things to exploit the value of technology for the firm
- 4.1.2. **Business Goals:** For students to analyze and compare app technologies, propose and design software architectures, and evaluate and value their impact on an organization for economic, political, and social implications.

5. Learning Outcomes

Upon successful completion of this course, students will be able to:

- 5.1.1. Describe and appreciate the history of networking, the past, present, and future.
- 5.1.2. Understand the fundamental functioning of the Internet, LANs, their components and tools.
- 5.1.3. List, discuss, and illustrate the four approaches to developing mobile apps.
- 5.1.4. Design, develop, test and deploy mobile apps using prototyping tools
- 5.1.5. Design, develop, test and deploy apps using responsive web based tools and libraries
- 5.1.6. Design, develop, test and deploy mobile apps using hybrid tools and libraries
- 5.1.7. Understand the promises and challenges with native app development environments
- 5.1.8. Given a business problem, propose, design, develop, defend, and present an effective technical and business solution as a group in a competitive environment.

6. Prerequisites

- 6.1.1. A desire to learn.
- 6.1.2. The ability to overcome uncertainty.
- 6.1.3. Flexibility in dealing with the tremendous complexity and technical issues that encompass the Web and Mobile App Development.

7. Required Textbook

7.1. Textbook

There is no required textbook for this course. However, there will be many, various, web based and freely available resources students will be required to use. Details will be posted on the course website as appropriate throughout the semester.

8. Required Devices

8.1. Laptop:

This course will require the use of a laptop for each class session.

8.2. Mobile Device

This course will require the use of a mobile device (Smartphone or tablet) for each class session.

8.3. Laptop Specifications:

- 8.3.1. MacBook (OS X 10.9 or higher) or Windows (8 or higher) laptop is sufficient
- 8.3.2. You will be required to download and install MANY open source software packages during
- 8.3.3. Wireless access to Wi-Fi networks
- 8.3.4. Sufficient free memory (2-4GB RAM) and free disk space (10-20 GB)
- 8.3.5. You must make backups and are responsible for disaster recovery of data and devices
- 8.3.6. Come to class with a charged battery that can last the entire class period.
- 8.3.7. It may not be possible or safe to plug in laptops in class.

8.4. Mobile Device Specifications:

- 8.4.1. Apple iOS phone or tablet (iOS 7 or higher)
- 8.4.2. Android phone or tablet (Android 4.4 KitKat or higher)
- 8.4.3. Storage space for Apps from 3rd parties and your own Apps.
- 8.4.4. Wireless Access to Wi-Fi Networks
- 8.4.5. You will be required to install apps from the Google Play Store or Apple App Store
- 8.4.6. You must make backups and are responsible for disaster recovery of data and devices.
- 8.4.7. Come to class with a charged battery that can last an entire class period
- 8.4.8. You will also need the appropriate USB cable to connect to your laptop.

8.5. Laptop and Mobile Device Resource Sharing:

- 8.5.1. You can expect to share your computing resources (laptop and mobile) with select classmates during the semester.
- 8.5.2. Mobile App development is a multi-platform world. It is not expected that each student owns all four devices (Mac, Windows, Android and iOS), so testing and app development may require sharing of resources. Sharing will be controlled, secure, and safe.
- 8.5.3. In no circumstance will any student share a password or have access to unauthorized content with other students.
- 8.5.4. At various times during the course, students with iOS devices may need to look and test an App on a classmates Android device, and in other sections, the reverse may be true, Android owners will need to look at and test an App on an iOS device of a classmate.

- 8.5.5. At various times during the course, a team of students may need to use the compiler of a Mac OS X laptop to compile code for an iOS device.

9. Course Requirements

Final letter Grade for this class will be based on your performance on Quizzes, Labs, Homework, Exams and a final project.

10. Grading Scale

Final course grades will be assigned on the basis of student performance using the guidelines below (ASU policy dictates that instructors may choose to award plusses and minuses at their discretion).

- 10.1.1. Percentages will be rounded up to the nearest 0.1% point.
 10.1.2. Requests to round up or "I just need 2 points to move to an A+" will not be entertained. Requesting more points may result in a reduction as such a request is asking your professor to violate academic integrity.

Grades Between	Letter Grade
98.0% and 100.0%	A+
93.0% and < 98.0%	A
90.0% and < 93.0%	A-
88.0% and < 90.0%	B+
83.0% and < 88.0%	B
80.0% and < 83.0%	B-
78.0% and < 80.0%	C+
70.0% and < 78.0%	C
60.0% and < 70.0%	D
0.0% and < 60.0%	E

11. Assignments:

- 11.1.1. All assignments will be specifically designated as individual work or group work.

12. Late Submission Policy

- 12.1.1. Dates posted in the course schedule are firm.
 12.1.2. Accommodations for serious circumstances may be granted with prior electronic approval from your instructor.
 12.1.3. Late submissions carry an automatic 20% deduction.
 12.1.4. Each additional 24-hour period after the due date has a 10% extra penalty.

13. Examinations and Quizzes:

- 13.1.1. Unless specifically stated, all examinations and quizzes are individual work.

- 13.1.2. The formats of the midterm will vary from in-class to online, open book vs. closed book.
- 13.1.3. Online assessments may use the Respondus Lockdown Browser – see details below.

14. Classroom Policies:

- 14.1.1. While class is in session, please refrain from using devices (laptops, phones, tablets, etc.) for reasons other than taking notes or doing the work demonstrated and on task.
- 14.1.2. Your instructor will not be able to talk with you before class, there will be setup and preparation for the class, this is not an opportunity to talk.
- 14.1.3. The final project may involve a team, in which case there will be a peer evaluation opportunity that will factor into each students final project grade.

15. Academic Integrity and Ethical Behavior

The W. P. Carey School takes academic integrity very seriously. Therefore, unless otherwise specified, it is imperative that you do your own work. Any suspected violations of academic integrity will be taken seriously and result in the following sanctions:

- A minimum of zero on the assignment OR
- A reduced grade in the course OR
- A failure in the course OR
- An XE which denotes failure due to academic dishonesty on the transcript OR
- Removal from the W. P. Carey School of Business

Additional information on ASU's academic integrity policy at
<http://provost.asu.edu/academicintegrity>

16. Honor Code

Please read and understand the Undergraduate Honor Code:

<https://my.wpcarey.asu.edu/academic-integrity/upload/Undergraduate-Honor-Code.pdf>

17. Course Specific Academic Integrity Guidelines:

- 17.1.1. All materials for this course are copyrighted, including, but not limited to, course exercises, quizzes, projects, presentations, videos, and notes.
- 17.1.2. Do not post or disseminate any materials to social media sites or online forums.
- 17.1.3. Do not take photographs or videos of the course website, quizzes, assignment, for the purpose of sharing with anyone, enrolled in this course or not.
- 17.1.4. Do not ask, request, or insinuate that another student violate the terms of academic integrity, ethical behavior, honor code or the specific guidelines outlined above.

18. Absence Policies

Attendance is mandatory. Topics tend to snowball in this course. If you have to miss a class, please let the professor know in advance by email. It is recommended that you utilize your groups to stay current in the rare occurrence that you miss class.

- 18.1.1. There is no makeup for a missed quiz
- 18.1.2. There is no makeup for a missed lab
- 18.1.3. There is no makeup for an exam unless accommodations have been requested and approved via email.

19. Schedule of Assignments:

There may be deviations to the tentative calendar shown below according to the class pace. Changes to dates will be announced in the class and posted to the course website. Expectations: Technology and skills are best learned with small steady investments and practice over a long period of time. With that as the foundation, you can expect weekly quizzes, labs, and homework up to the final project.

Unless otherwise noted in the assignment or announcement:

- 19.1.1. Quizzes will be held during your assigned class section.
- 19.1.2. Labs will be held during your assigned class section.
- 19.1.3. Homework will be due on Friday on or before by 6:00 PM AZ Time in the course website
- 19.1.4. Exams will be posted on the course website and can be taken on Friday starting 6:00 PM AZ time and due to be completed before 11:59 PM AZ time

Week	Mon	Wed	Fri	Part	Quiz	Lab	HWK	Exam
0			08/19	0. Introduction			H00	
1	08/22	08/24	08/26	1. Network Fundamentals	Q01	L01	H01	
2	08/29	08/31	09/02	1. Network Fundamentals	Q02	L02	H02	
3	09/05	09/07	09/09	1. Network Fundamentals	Q03	L03	H03	
4	09/12	09/14	09/16	2. Prototyping Apps	Q04	L04	H04	
5	09/19	09/21	09/23	2. Prototyping Apps	Q05	L05	H05	E01
6	09/26	09/28	09/30	3. Responsive Apps	Q06	L06	H06	
7	10/03	10/05	10/07	3. Responsive Apps	Q07	L07	H07	
8	10/10	10/12	10/14	3. Responsive Apps	Q08	L08	H08	
9	10/17	10/19	10/21	3. Responsive Apps	Q09	L09	H09	E02
10	10/24	10/26	10/28	4. Cross Platform Apps	Q10	L10	H10	
11	10/31	11/02	11/04	4. Cross Platform Apps	Q11	L11	H11	
12	11/07	11/09	11/11	4. Cross Platform Apps	Q12	L12	H12	
13	11/14	11/16	11/18	5. IoT Integration	Q13	L13	H13	
14	11/21	11/23	11/25	6. Final Project				
15	11/28	11/30	12/02	6. Final Project				

20. Final Exam Calendar:

Team Final Project demonstrations presentations and potentially judging from professionals will take place instead of a final exam. We will use the final exam time according to the final exam schedule.

	Date	Start	End	Topic	Bld	Room	SLN	Days	Class
Final	12/05	12:10	02:00	Final Project Presentations	BAC	323	87980	MWF	11:50
Final	12/07	09:50	11:40	Final Project Presentations	BAC	323	87979	MWF	10:45
Final	12/07	12:15	02:05	Final Project Presentations	BAC	323	87981	MWF	12:55

21. Grade Appeals

- 21.1.1. Grade appeals are to be done in writing and during office hours
- 21.1.2. No grade appeals will be handled during class
- 21.1.3. Written appeals must be professional in nature, include what was graded, what change is requested, and sound reasoning as to the purpose of the appeal
- 21.1.4. Grade appeals must be received by email within one week of the due date or one week from the date the feedback was given.

22. University Calendar:

The following are provided for convenience, please consult the official University Calendar

Drop deadline: 8/19/2016

This is the last day to drop this class without receiving a grade of 'W' on your transcript.

Course withdrawal deadline: 9/7/2016

This is the last day to withdraw from this class while staying enrolled in other classes in the same session. After this date, a withdrawal from this class is only available as part of a complete session withdrawal (see below).

Complete session withdrawal deadline: 10/7/2016

This is the last day to request a complete withdrawal from this session. As part of a complete withdrawal you must withdraw from all of your classes in this session. Beginning the first day of the fall and spring semesters, undergraduate students are required to work with their college/school to facilitate the withdrawal process. For more information please see How to Drop/Add & Withdraw. Please consult the following web site <https://students.asu.edu/academic-calendar> For information on Drop/Add Deadline, Course Withdrawal Deadline, and Complete Withdrawal Deadlines.

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23. University Sanctioned Activities

- 23.1.1. Accommodations will be made for students who miss class related to university-sanctioned activities according to ACD 304-02. If you are participating in a university-sanctioned activity, please let your instructor know as early in the course as possible via email so that accommodations can be made.

24. Religious Accommodations

Accommodations will be made for students with religious holidays. Below is the calendar of official religious holidays. Each holiday noted with two asterisks denotes an observance for which work is not allowed. For these holidays, students will not be penalized in any way for missing class or assignment. This means that this will not count as an absence in class and they will be granted a makeup assignment or exam, etc.

<https://provost.asu.edu/index.php?q=religious-holiday-calendar>

25. Tutoring Support

- 25.1.1. Please note that the W. P. Carey School of Business provides free tutoring in BA 201 for a number of undergraduate business classes. Assistance with writing is also provided. More information regarding courses offered and hours are available here: <https://my.wpcarey.asu.edu/undergrad/student-success/success-center.cfm?> In addition to the W. P. Carey Student Success Center, Arizona State University provides writing assistance. More information can be found here: <http://studentsuccess.asu.edu/writingcenters>

26. Threatening Behavior Policy

- 26.1.1. The university takes threatening behavior very seriously and these situations will be handled in accordance with the *Student Services Manual*, SSM 102-02 <http://www.asu.edu/aad/manuals/ssm/ssm104-02.html>.

27. Copyright Material

- 27.1.1. The course content, including lectures, are copyrighted material and students may not sell notes taken during the conduct of the course (see [ACD 304-06](#), “Commercial Note Taking Services” for more information).

28. Disability Accommodations

- 28.1.1. If you need an accommodation for a disability, you must register with the Disability Resource Center (DRC).

29. Respondus Lockdown Browser Monitor

The W. P. Carey School of Business takes academic integrity seriously as it prepares you for future employment and as a productive member of society. Utilizing tools such as Lockdown Browser provide you with the protection and secure approach in knowing that integrity is place and that anyone with dishonest actions will face the academic sanctions listed below.

Each exam requires the use of Respondus LockDown Browser & Respondus Monitor (RLDBM). RLDBM enables ASU to protect the integrity of non-proctored, online exams. You will use your own computer and a webcam (either included in your computer or an external attachment) to record our online exams, all while logged into Blackboard.

29.1. The Respondus Monitor system will require the following:

- 29.1.1. Windows: 7, 8, 10, Vista, XP
- 29.1.2. Mac: OS X 10.6 or higher
- 29.1.3. Adobe Flash Player
- 29.1.4. Web camera (internal or external) & microphone
- 29.1.5. A broadband internet connection, preferably wired, not wi-fi
- 29.1.6. You must use your own computer to have access for downloading materials
- 29.1.7. You are responsible for ensuring all software updates are current on your machine

29.2. Your expected conduct:

- 29.2.1. You must dress appropriately while taking an exam.
- 29.2.2. You will be required to move your camera to sweep the room and show your ASU ID.
- 29.2.3. No hats, sunglasses or headphones may be worn during the exam.
- 29.2.4. All exams must be taken in a private location (no public areas, lounges, etc.) and students must be alone during the exam period.

29.3. Helpful tips:

- 29.3.1. There is a Student Guide available posted in the Respondus Monitor area of the course site. You should review prior to the first exam.
- 29.3.2. When setting up for the Honor Code quiz, a startup sequence will run to make sure that your webcam and microphone are working.
- 29.3.3. As you will need to show your ASU ID, it should be out on your desk (removed from any wallet or sleeve covers) so it can be held up when requested.
- 29.3.4. **IMPORTANT NOTICE REGARDING ASU IDs:** Should we be unable to adequately view your ASU ID (*name or photo*), we reserve the right to have you retake the exam (and offer an exam that has been *significantly modified* from the original exam in order to maintain academic integrity).
- 29.3.5. You will need to upgrade to the most recent version of the RLDB at:
- 29.3.6. <http://www.respondus.com/lockdown/information.pl?ID=197112001>

- 29.3.7. If you are using the most current version of the RLDB and you experience technical difficulties, click **Get Help!** in your course site.
- 29.3.8. After you start the Lockdown Browser, you will be prompted to choose servers.
IMPORTANT NOTICE: Choose ASU.
- 29.3.9. ** You will not be able to use Firefox, Chrome, Internet Explorer, Safari, or any other browser.

**Information contained within this syllabus
(except for grading and absence policies) is subject to change.**