CS 4720-001 **Mobile Application Development** - Fall 2017

ENGR (17581)

INSTRUCTORS: **Sherriff, Mark (mss2x)**

Respondents: 41 / Enrollment: 80

Summary: CS 4720-001 Mobile Application Development - Fall 2017 (17581)

Overall Course Rating

CS-4720-001 Mean 4.41
CS-4720-001 Std Dev 0.77
CS-4720-001 Response Count 204

SEAS, 4000-level courses Mean 4.14
SEAS, 4000-level courses Std Dev 0.94
SEAS, 4000-level courses Response Count 11309

Overall Instructor Rating

INSTRUCTOR: Sherriff, Mark
Mean 4.52
Std Dev 0.65
Response Count 287

SEAS, 4000-level courses Mean 4.32
SEAS, 4000-level courses Std Dev 0.85
SEAS, 4000-level courses Response Count 17404

~ QUESTIONS AND DETAILS ~ | *~ ANSWER MATRICES ~*

1. How accurate is this statement for you: The project was of acceptable length.

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Question Type: Likert
~
contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
41	4.24	0.80	17 (41.46%)	19 (46.34%)	3 (7.32%)	2 (4.88%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
69	4.30	0.71	29 (42.03%)	34 (49.28%)	4 (5.80%)	2 (2.90%)	0 (0.00%)

2. How accurate is this statement for you: The project was of acceptable difficulty.

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Question Type: Likert
~
contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
41	4.32	0.69	17 (41.46%)	21 (51.22%)	2 (4.88%)	1 (2.44%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
69	4.33	0.63	28 (40.58%)	37 (53.62%)	3 (4.35%)	1 (1.45%)	0 (0.00%)

3. Which topic/lecture in this course was your favorite and why?

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Question Type: Short Answer
~
contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Individual Answers
35	*See below for Individual Results*

Wireframing + WillowTree (Guest Lecture). I really love the process of UX/UI and was really looking forward to learning about how it applies to mobile applications. The WillowTree guest lecture was really cool, bc I got to see how a company implements their wireframing and what their UX/UI team does. (I also got into contact with WillowTree for UX opportunities!)

VR

AR and VR. Because I've never experienced it and using for the first time was a great experience.

I liked learning about the Android platform

Ethics. I thought it was good to see what thought processes and considerations should be taken into account when developing apps.

I really like learning about the wearable devices as well as the android part of the course. I'm not a huge apple guy so i'm a little bit biased

Lecture on REST

Likely Accessibility or Interface design. Being a Computer Engineer I have plenty of experience with hardware and sensors, but less experience with the soft skills that go beyond making an app functional, but instead make people actually want to/be able to use it.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	Augmented reality and the potential that it holds was super interesting to me, I think the future of mobile is important for students to learn I liked the classes with wireframing because it allowed for in-class activity instead of just lecturing and I like the design aspect of software development. In addition, I could see what other people were thinking of and for the watch OS, made me think further about the functionality and use of such a small screen. Apart from the Guest Lecture and the VR Day (which were awesome!), I especially liked the high-level lectures about the differences between iOS and Android development. I think learning REST API was the most interesting to me. I also thought all the history stuff was pretty interesting. VR Demo accessibility The lectures on iOS particularly the iOS lab was a good intro vm, its an interesting topic Augmented reality and virtual reality were really fun topics to cover due to the amount of interactivity we were able to have with both the lecture and the demo day. I also though the Willowtree speakers were also great to have since they were directly in the field of work I wanted to go into. UI Design Basically everything about Wearables and AR and VR were super interesting I really enjoyed the sensor ethics and other moments where we mentioned ethics. Talking about sensor ethics made me think about them in a way I hadn't before. Probably the portions about design and usability - I always enjoy exploring the human aspects of technology. They were all dank VR, AR, and Mobile. These are something that I'm really interested in but never get the chance to learn more. Core skills app, it was cool to learn all different kinds of features that would be useful in a future app I really enjoyed watches and the early material on the actual app design/code. VR and AR I really enjoyed the accessibility lecture because it address a topic that is essential but also something I wouldn't have thought about Cross Platform Development, I think its a very interesting aspect of Mobile Dev and would like to see more of it in the future I really liked learning swift/ios app development even though I dont have a Mac, I have always wanted to know how to develop iPhone apps The UI design lectures because they were the first interactive ones and deviated from the standard lecture. Also the Guest lecture from WillowTree for similar reasons. Android, iOS data management, REST. I found these topics to be the most relevant for information I would need in the future. iOS I liked data management because it is useful in building apps. I also like AR/VR because of its cool applications like mapping out an infant's heart for surgery. I enjoyed the initial mini apps that forced us to dive headfirst into the platforms and gave us a taste of what they can do. My favorite topic was wearables as I feel that was extremely applicable to everyday life and will be much more common in my future even if I decide to never to code an app (again).

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

4. Which topic/lecture in this class do you think you will find the most useful in the future?

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Question Type: Short Answer

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contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Individual Answers
35	*See below for Individual Results*

Having knowledge about mobile development in general is definitely super useful. If I had to pick one that I find the most useful, it would probably be the one about REST since it not only applies to mobile.

Understanding the behind the scenes of android and iOS apps to the extent that we learned it.

Monetization

Probably REST and integrated RESTful API's into mobile projects

Interfacing mobile applications with web services, UI design

iOS

Architecture

SOA/REST

Everything that had to do with developing for Android

Web service

Ethics because I think I'll see myself using apps more than making them in the future.

Same answer as above and iOS programming. As an Apple product user, I believe that learning how to code an iOS app will be very applicable in my future medical career.

Either REST or just general iOS development, I feel like having a solid grasp on the introductory stuff will definitely have a strong benefit in the future.

MVC -- really learning the architecture of mobile helps with background and understanding why and how different components work when building mobile apps.

Probably really committing REST principles to memory and finally understanding how those services work, even though that wasn't the focus of the class.

Rest

UI design - thinking about how things are designed and how to improve user experience. Even though it is covered in HCI, I still think that this is an important topic when creating any type of software.

iOS programming

The early lectures that covered the app design/code.

iOS core skills

The ones answered in the previous question. And lab sections!

Programming topics. Going over Nielsen Norman and RESTFUL yet again is always nice.

See 3, data management. Android architecture was a good intro to android apps too.

The topics on REST architecture and Android/iOS Architecture, which while boring, were pretty important in terms of figuring out what to do in both the homework assignments and how to make mobile apps in general.

RESTful architecture

All of it. I am working for a company that I may be on mobile projects.

Probably the wireframing - while it was necessary for mobile apps to learn how to use android studio and XCode, the wireframes lecture and discussions about click depth are applicable to website and user-interface design, so even if I never program another mobile application in the future, I'll likely see it again.

The mobile architecture lectures since they helped in my understanding of how to get a mobile app developed.

UI Design

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	Authentication. Security is an issue I've heard more and more about through my years in college and particularly in a sector as relevant as mobile tech this is a very important topic. more technical tutorials iOS App Development Definitely wireframing because it makes me realize that designing is as important as coding. Service oriented architecture is a topic that I think was very applicable in not only mobile everywhere Probably all of the theory behind mobile design. The technology may change but a lot of the theory will be useful forever.
5. What lecture/topic(s) in this class "did not work" or were not seen as useful in the long run? ~ Question Type: Short Answer ~ *contributed by Sherriff, Mark (mss2x)*	Results for CS-4720-001, Sherriff, Mark Total: 29 Individual Answers: *See below for Individual Results*
	Just the exam review one - nothing to do with the idea or content, just there was this constant beeping from the hall, and the constant shift in topic with the beeping made it difficult to concentrate. Not anybody's fault. Monetization While necessary, the SOA and web service content was a little difficult to get through VR stuff felt a little off for Mobile but it was fun. I am unsure about Cross platforming except to learn why people use it. Cant think of any off the top of my head. Thought all topics were pretty important to Mobile App Development. Wireframing N/A. All of the lecture topics were pretty relevant AR/VR I realize that it can be hard to balance between those coding for iOS and those for android, but as a result, because I went the android route, there were some iOS code examples that I didn't find very useful. In addition, while it was helpful to get a rough idea of how xcode worked, it was still a litle confusing actually using it as I can't memorize all the steps that were shown in class - for those classes that are code-example-heavy, I think a video of that lecture would have been helpful. I did not like the wireframing. There was a lot of overlap with past classes. many days were coding days where Sherriff walks through how to code certain items. I think this time could be spent going more in-depth with other topics because example code is posted in git None come to mind REST, I don't think we had a chance to see it applied in our own applications directly. app user rights Didn't think we needed to spend as much time as we did on wearables I don't plan on doing iOS development so it won't be super useful for me, but I know a ton of people will so definitely do not change this. It is great that you give both options and make people do projects for both to get that exposure and understanding. N/A N/A I think three lectures on wireframing is one too many, also the design principles for Apple and Android could have been combined into one lecture. n/a Android They all make sense. I wish I could take this class five years from now and build an AR/VR app.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

Learning about virtual reality

Wearables.. maybe because it's still really new and kind of/not really related to handheld devices.

Although I understand why we need to learn MVC and Rest API, I believe that because I never really had the opportunity to relate these topics (knowingly) to any project we did in class and thus, I don't think that I really learned them.

I think wireframing was maybe a little drawn out if anything but it is probably necessary.

all topics were fairly useful

Honestly, every topic either seemed relevant or was something that interested me.

6. How accurate is this statement for you if you used the podcasts from this class: Podcasts were useful to catch up on material that I missed due to absences.

~

Question Type: Likert

~

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	3.93	1.27	12 (29.27%)	7 (17.07%)	4 (9.76%)	2 (4.88%)	2 (4.88%)	14 (34.15%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
68	4.07	1.11	20 (29.41%)	13 (19.12%)	7 (10.29%)	2 (2.94%)	2 (2.94%)	24 (35.29%)

7. How accurate is this statement for you if you used the podcasts from this class: The podcasts were useful to review material that I was unclear on.

~

Question Type: Likert

~

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	3.92	1.06	9 (21.95%)	9 (21.95%)	6 (14.63%)	1 (2.44%)	1 (2.44%)	15 (36.59%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
68	3.93	0.99	15 (22.06%)	13 (19.12%)	13 (19.12%)	1 (1.47%)	1 (1.47%)	25 (36.76%)

8. How often did you listen to the podcast for a lecture?

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Question Type: Multiple Choice

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contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Every lecture (NA)	Nearly every lecture (NA)	Whenever I needed to review a topic (NA)	Only when I missed a class (NA)	Randomly just to see what it was like (NA)	Never (NA)
41	2 (4.88%)	1 (2.44%)	7 (17.07%)	12 (29.27%)	4 (9.76%)	15 (36.59%)

Results for SEAS, 4000-level courses

Total	Every lecture (NA)	Nearly every lecture (NA)	Whenever I needed to review a topic (NA)	Only when I missed a class (NA)	Randomly just to see what it was like (NA)	Never (NA)
68	2 (2.94%)	2 (2.94%)	13 (19.12%)	17 (25.00%)	5 (7.35%)	29 (42.65%)

9. Do you have any suggestions/comments that we should take into account for future projects for this course?

~

Question Type: Short Answer

~

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Individual Answers
28	*See below for Individual Results*

Make sure that during project office hours there is at least one person who specializes in iOS and one person in Android, we went to office hours and couldn't be helped at all because the person didn't know iOS

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	make attendence required everyday. I skipped a couple of lectures here and there but your lectures
	Not sure how to improve it, but the optional features and what counted was a little confusing. But Dr. Sherriff confirmed if your features worked if you emailed him which was good.
	I think giving a students a rough idea of the minimum number of hours they should expect to put into a project will help in terms of scheduling time.
	Some of us found the final project to be a lot more time-consuming and difficult than expected. I felt that due to the varying technical levels of students, some of us struggled a lot more than others. I didn't feel that the mini apps and core skills app prepared me enough for taking on the final project. It would help to have the final project start earlier in the semester or to have had the mini apps and core skills app be more flexible.
	There should be videos along with the audio. If students miss a class, and try to listen to the podcast, it is useless because the Professor is talking about code you cannot see.
	I'd have liked to have looked at the cross-platform development stuff a little more, maybe have a demo or exercise about it. But I know you've got plenty to cover as is, so no pressure.
	Seems like there were much greater expectations for the final project than the mini-app, which made me struggle to collaborate with my partner during the project much more than during the mini app. Either offer a middle-scale project between the mini-app and the project or give more tips on project or workload organization for the final.
	Projects were reasonable.
	No, I thought they were well organized, developed, and interesting.
	Maybe give less guidance or make the core skills app more difficult. It was good to create a basic framework for what we needed to do for the final project, but the Firebase stuff for example turned out to be really difficult when I had to do it on my own. Maybe it was the complexity of what we were doing but implementing it into the full app turned out to be a lot more difficult that anticipated.
	Allowing us to understand a viable scope for the final project
	it was interesting seeing what projects other teams were working, just wished we had more time to explore other people's projects
	Following that of game design, I think that having two checkpoints for the final project would have prevented last minute cramming to finish the project and forced us to space out our work more.
	More milestones for the final project?
	Force people to have partners
	More practices before projects
	They were pretty good, but the grading system does really reward effort. You could make an extremely easy implementation of a feature for 20pts that has bugs, or you could get the same score for a large endeavor that is also extremely polished.
	N/A
	No
	No
	make the final project milestone more serious and provide more feedbacks so that students know exactly what to work on later.
	I understand the point of having certain extra features you have to have in your app but even if your app was robust and "hard" enough you may have to through in a random feature that may not make the app better.
	Allow the MacMinis to update their Xcode version when the new iOS system comes out.
	I wanted more time with the final project. It was the most enjoyable part of the course, but my partner and I both felt like it was a short time frame and wanted to develop our app further.
	I think the milestones need to have more guidelines on exactly what is being assessed. Also, the lab, or an alternative location, should be open more often for people who do not have iOS devices to code on.
	Maybe an "App Expo" like you do for Game Design CS4730 - but probably only if people have more time for the final project because it is really hard to build a non-buggy app in three weeks. (I guess that's a lesson learned from this class as well)
	None that cone to mind

~ QUESTIONS AND DETAILS ~ | *~ ANSWER MATRICES ~*

10. During the project, how many hours per week did you dedicate specifically to project work?

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Question Type: Multiple Choice

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contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	0-2 (NA)	3-5 (NA)	6-8 (NA)	9-12 (NA)	13-16 (NA)	17 or more (NA)
41	4 (9.76%)	15 (36.59%)	10 (24.39%)	6 (14.63%)	4 (9.76%)	2 (4.88%)

Results for SEAS, 4000-level courses

Total	0-2 (NA)	3-5 (NA)	6-8 (NA)	9-12 (NA)	13-16 (NA)	17 or more (NA)
67	7 (10.45%)	28 (41.79%)	14 (20.90%)	8 (11.94%)	6 (8.96%)	4 (5.97%)

11. How would you rate the availability of TAs?

~

Question Type: Likert

~

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Excellent (4)	Good (3)	Average (2)	Weak (1)	Very Poor (0)
41	2.85	0.73	5 (12.20%)	27 (65.85%)	8 (19.51%)	0 (0.00%)	1 (2.44%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Excellent (4)	Good (3)	Average (2)	Weak (1)	Very Poor (0)
68	2.91	0.69	9 (13.24%)	47 (69.12%)	10 (14.71%)	1 (1.47%)	1 (1.47%)

12. How would you rate the helpfulness of the TAs?

~

Question Type: Likert

~

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Excellent (4)	Good (3)	Average (2)	Weak (1)	Very Poor (0)
41	2.71	0.90	5 (12.20%)	25 (60.98%)	6 (14.63%)	4 (9.76%)	1 (2.44%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Excellent (4)	Good (3)	Average (2)	Weak (1)	Very Poor (0)
68	2.81	0.82	10 (14.71%)	41 (60.29%)	12 (17.65%)	4 (5.88%)	1 (1.47%)

13. How often did you make use of the TA office hours?

~

Question Type: Multiple Choice

~

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Every week (NA)	Every other week (NA)	Once per assignment (NA)	Rarely (NA)	Never (NA)
41	2 (4.88%)	6 (14.63%)	11 (26.83%)	13 (31.71%)	9 (21.95%)

Results for SEAS, 4000-level courses

Total	Every week (NA)	Every other week (NA)	Once per assignment (NA)	Rarely (NA)	Never (NA)
68	4 (5.88%)	6 (8.82%)	14 (20.59%)	31 (45.59%)	13 (19.12%)

14. Any specific comments about the TAs you would like to share?

~

Question Type: Short Answer

~

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Individual Answers
22	*See below for Individual Results*

Very good about regrades

Keith was helpful.

Make sure that during project office hours there is at least one person who specializes in iOS and one person in Android, we went to office hours and couldn't be helped at all because the person didn't know iOS

I think that it's hard to be a TA for the class, especially if one TA has more experience with one platform over the other - then its difficult to help students who have questions about the other platform. In addition, since there are so many steps to making a functioning application, esp. in iOS, its difficult to debug and help with without spending a lot of time per each student.

In general, TAs were helpful, but some are stronger than others. More TAs and Office Hours would have been nice.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	Anna was really helpful and she was always willing to help during office hours. If possible, during the final project it would be nice if a TA could specify in the OH description whether they did their final project in Android or iOS because depending on which one they did they were much more knowledgeable about that platform. N/A No No I would like the TAs to hold office hours a little more spread out throughout the week. Also, there were some TAs who, during the final project, said that they didn't work with our platform of choice and were unable to help us. I think that either every TA should have a more thorough knowledge of both platforms, or that two TAs, one with experience in one platform and the other with experience with the alternative platform, should be present during the office hours, or that it should clearly be stated which TA works with which platform. I went to a TA one time and he wasn't helpful. His knowledge of iOS was not much greater than mine, so the office hours were not useful. TA's don't seem to be any more knowledgable than a student in the class would be. He was very nice and professional though. Some of the tas were friendly, but not the most knowledgeable about the things I struggled with. This is partly a platform issue, because android has sooo many ways to do a specific thing. I felt there weren't many places to go for help. Some tas were also extremely arbitrary in their grading and made no allowance for interpretation of the assignment. I had one ta who admitted to me they graded the exact opposite of the definition of a sentence in the requirements, but wouldn't allow for the correct interpretation. Usually the only TA office hour I can go is very busy, so I usually do not bother visiting. Didn't use office hours enough to say The fact that they were fairly well available, even during crunch time, already puts them head and shoulders above most other classes I've had where I went to the TAs. Anna was neat Some of the TA's did not know how to run the app while others were able to easily run them I never went to office hours so I don't have much feedback. But the TAs were really nice during the demo days. Overall really nice. one of the TAs did not grade any assignments properly... very annoying to have to go to OH just to fix the TA's mistake They are nice and approachable
15. What other topics do you wish we had time to cover or which topics did we cover that you wish we could have covered more deeply? ~ Question Type: Short Answer ~ *contributed by Sherriff, Mark (mss2x)*	Results for CS-4720-001, Sherriff, Mark Total: 24 Individual Answers: *See below for Individual Results*
	App development cycle. Maybe a lecture on mobile gaming, how multiplayer works in mobile games Security and authentication. We never really went into too kuch depth N/a UI transaction services in mobile app development N/A N/A N/A

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

n/a

More with new features from the iphone X would be fun!

I kind of instantly preferred iOS to Android so was kind of checked out of some of the more Android-specific stuff.

Contextual computing may be interesting to cover in the future with facial recognition like the iPhone X

Cross platform development

Maybe add an additional project. It seemed like there was a whole month where I wasn't doing any work.

Maybe a lecture about coming up with an app idea some time before the final project proposal would be nice. Something like comparing successful app to apps that failed - what do people use apps for?

Integrating RESTful services and web API's. I almost wish there was a component of CORE that required us to find our own API and integrate it.

going into UI design more in depth during wireframing

I wish we had more time to go over Android concepts, since the hardest part about the Android bucket list was understanding how the screens on the app communicate with each other.

I think that touching on the specifics of how VR and AR actually works would have been pretty cool

I wish that we had delved into the topic of virtual reality a bit more and covered automated technology as that is where the world is headed.

More feature specific things.

more indepth coverage of different web services and data driven things apps can do

Implementation of applications

16. How often did you utilize the resources in Rice 340 after class hours?

~

Question Type: Multiple Choice

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contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	1-2 times total (NA)	3-4 times total (NA)	Avg. twice a week (NA)	Avg. three times a week (NA)	Almost daily on class days (NA)	Literally every day I could (NA)
41	20 (48.78%)	13 (31.71%)	5 (12.20%)	3 (7.32%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	1-2 times total (NA)	3-4 times total (NA)	Avg. twice a week (NA)	Avg. three times a week (NA)	Almost daily on class days (NA)	Literally every day I could (NA)
68	29 (42.65%)	26 (38.24%)	9 (13.24%)	4 (5.88%)	0 (0.00%)	0 (0.00%)

17. To what degree do you agree with this statement: the team size from the project was appropriate (please elaborate in your class comments).

~

Question Type: Likert

~

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
40	4.12	0.88	16 (40.00%)	15 (37.50%)	7 (17.50%)	2 (5.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
67	4.13	0.83	25 (37.31%)	29 (43.28%)	10 (14.93%)	3 (4.48%)	0 (0.00%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

18. The course addressed technically rigorous subject matter consistent with the course objectives.

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Question Type: Likert

~

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.46	0.81	24 (58.54%)	14 (34.15%)	2 (4.88%)	0 (0.00%)	1 (2.44%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2259	4.35	0.79	1097 (48.56%)	913 (40.42%)	138 (6.11%)	54 (2.39%)	25 (1.11%)	32 (1.42%)

19. The instructor used methods other than/in addition to traditional lectures (for example, active learning, in-class problems, collaborative learning, in-class discussion) effectively in this course.

~

Question Type: Likert

~

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.48	0.60	21 (51.22%)	17 (41.46%)	2 (4.88%)	0 (0.00%)	0 (0.00%)	1 (2.44%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2488	4.19	0.96	1095 (44.01%)	862 (34.65%)	243 (9.77%)	121 (4.86%)	51 (2.05%)	116 (4.66%)

20. There was a reasonable level of effort expected for the credit hours received.

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Question Type: Likert

~

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
40	4.55	0.60	24 (60.00%)	14 (35.00%)	2 (5.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2261	4.22	0.89	989 (43.74%)	944 (41.75%)	177 (7.83%)	100 (4.42%)	36 (1.59%)	15 (0.66%)

21. The homework assignments helped me learn the subject matter.

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Question Type: Likert

~

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.58	0.64	26 (63.41%)	11 (26.83%)	3 (7.32%)	0 (0.00%)	0 (0.00%)	1 (2.44%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2262	4.13	0.95	833 (36.83%)	809 (35.76%)	234 (10.34%)	110 (4.86%)	41 (1.81%)	235 (10.39%)

22. The textbook increased my understanding of the material.

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Question Type: Likert

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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	3.75	1.06	4 (9.76%)	2 (4.88%)	5 (12.20%)	1 (2.44%)	0 (0.00%)	29 (70.73%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2267	3.71	1.08	285 (12.57%)	321 (14.16%)	292 (12.88%)	83 (3.66%)	41 (1.81%)	1245 (54.92%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

23. The course material was well organized and developed.

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Question Type: Likert

~

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.51	0.78	25 (60.98%)	14 (34.15%)	1 (2.44%)	0 (0.00%)	1 (2.44%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2485	4.10	0.96	954 (38.39%)	957 (38.51%)	288 (11.59%)	142 (5.71%)	45 (1.81%)	99 (3.98%)

24. The instructor was knowledgeable about the subject matter.

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Question Type: Likert

~

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.63	0.54	27 (65.85%)	13 (31.71%)	1 (2.44%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2488	4.59	0.64	1615 (64.91%)	729 (29.30%)	91 (3.66%)	17 (0.68%)	10 (0.40%)	26 (1.05%)

25. The instructor was well prepared for class.

~

Question Type: Likert

~

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.56	0.55	24 (58.54%)	16 (39.02%)	1 (2.44%)	0 (0.00%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2487	4.41	0.75	1291 (51.91%)	898 (36.11%)	164 (6.59%)	43 (1.73%)	14 (0.56%)	77 (3.10%)

26. I received adequate preparation from the prior courses in the curriculum to be successful in this course.

~

Question Type: Likert

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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.24	0.80	18 (43.90%)	16 (39.02%)	6 (14.63%)	1 (2.44%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2260	4.05	0.97	804 (35.58%)	895 (39.60%)	303 (13.41%)	123 (5.44%)	51 (2.26%)	84 (3.72%)

27. The grading policy was fair.

~

Question Type: Likert

~

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.37	0.70	19 (46.34%)	19 (46.34%)	2 (4.88%)	1 (2.44%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2483	4.20	0.90	1052 (42.37%)	961 (38.70%)	248 (9.99%)	99 (3.99%)	40 (1.61%)	83 (3.34%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

28. The instructor responded adequately to in-class questions.

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Question Type: Likert

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contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.56	0.71	27 (65.85%)	11 (26.83%)	2 (4.88%)	1 (2.44%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2489	4.43	0.75	1334 (53.60%)	895 (35.96%)	140 (5.62%)	47 (1.89%)	17 (0.68%)	56 (2.25%)

29. The instructor effectively used technology in support of the learning goals for this course.

~

Question Type: Likert

~

contributed by Dean of the School of Engineering and Applied Science

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
41	4.56	0.63	25 (60.98%)	15 (36.59%)	0 (0.00%)	1 (2.44%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	Not Applicable (NA)
2484	4.28	0.85	1124 (45.25%)	903 (36.35%)	241 (9.70%)	67 (2.70%)	30 (1.21%)	119 (4.79%)

30. The average number of hours per week I spent outside of class preparing for this course was:

~

Question Type: Multiple Choice

~

contributed by Office of the Provost

Results for CS-4720-001

Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
41	2 (4.88%)	14 (34.15%)	18 (43.90%)	4 (9.76%)	3 (7.32%)

Results for SEAS, 4000-level courses

Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
2269	125 (5.51%)	739 (32.57%)	905 (39.89%)	323 (14.24%)	177 (7.80%)

31. I learned a great deal in this course.

~

Question Type: Likert

~

contributed by Office of the Provost

Results for CS-4720-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
41	4.59	0.59	26 (63.41%)	13 (31.71%)	2 (4.88%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2263	4.14	0.95	949 (41.94%)	899 (39.73%)	261 (11.53%)	100 (4.42%)	54 (2.39%)

32. Overall, this was a worthwhile course.

~

Question Type: Likert

~

contributed by Office of the Provost

Results for CS-4720-001

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
41	4.63	0.58	28 (68.29%)	11 (26.83%)	2 (4.88%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2265	4.11	1.02	971 (42.87%)	835 (36.87%)	273 (12.05%)	105 (4.64%)	81 (3.58%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~

33. The course's goals and requirements were defined and adhered to by the instructor.

~

Question Type: Likert

~

contributed by Office of the Provost

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
41	4.61	0.59	27 (65.85%)	12 (29.27%)	2 (4.88%)	0 (0.00%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2482	4.30	0.78	1115 (44.92%)	1108 (44.64%)	177 (7.13%)	57 (2.30%)	25 (1.01%)

34. The instructor was approachable and made himself/herself available to students outside the classroom.

~

Question Type: Likert

~

contributed by Office of the Provost

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
41	4.24	0.77	17 (41.46%)	18 (43.90%)	5 (12.20%)	1 (2.44%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2482	4.38	0.78	1304 (52.54%)	913 (36.78%)	195 (7.86%)	53 (2.14%)	17 (0.68%)

35. Overall, the instructor was an effective teacher.

~

Question Type: Likert

~

contributed by Office of the Provost

Results for CS-4720-001, Sherriff, Mark

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
41	4.59	0.67	27 (65.85%)	12 (29.27%)	1 (2.44%)	1 (2.44%)	0 (0.00%)

Results for SEAS, 4000-level courses

Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
2492	4.28	0.88	1219 (48.92%)	921 (36.96%)	232 (9.31%)	78 (3.13%)	42 (1.69%)

36. Please make any overall comments or observations about this course:

~

Question Type: Short Answer

~

contributed by Office of the Provost

Results for CS-4720-001

Total	Individual Answers
21	*See below for Individual Results*

Hands down the most useful class I have ever taken in CS. Final project was fun (despite working on it until 4am before the deadline)!

Why was attendance taken on non-attendance days?

He is a scary man @ office hours

I would consider making projects individual. In a partner project, it seems like one partner is always missing doing part of the app (and therefore learning that material!)

Mobile was a very enjoyable course and Professor Sherriff was a great lecturer. This course was a great intro to mobile development. The team size was perfect. Any more team members and there would not have been enough work to go around, especially for a final project. (I worked with 1 partner)

This is a great CS class to take if you like to develop projects that are both relevant and interesting on your resume. Truly this class made me appreciate how skilled mobile app developers are and how frustrating it is to make a mobile app in the first place.

Great professor, with reasonable expectations of the students. Happy with the number of TA's and their availability. Useful course for anyone with thoughts of going into mobile fields.

I enjoyed it, but didn't learn as much about specific app development as I would like. The final project felt like I was floundering around to get things to work and resulted in an unsatisfying product.

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~
	Lots of self-learning, but worthwhile class. I wish there were more lab days. Also, three might have been a better group size for the final app. First time having Sherriff as a professor and he's one of my favorites so far. He clearly enjoys the material and I feel like I learned a lot on a high conceptual level from the lectures and a lot on a more practical, down in the coding trenches level from the app development projects. The class strikes a nice balance between the two. Great class, probably the best I've taken in the entire department While two people for the final project was acceptable, I think that having a three person group could have helped make a more polished final product. I really liked using github for all the projects as it provided a central location for all the coding assignments we had. Two people was plenty for the project I think that this course was well designed, but it was not my favorite. I probably would have enjoyed this class more if I had taken it earlier in my college career. For those of us without MACs, it was very hard to complete the iOS mini app. While the instructor is aware that it may be difficult to spend time in the lab to finish the project, I don't think it was taking into consideration that the lab was often closed. Both my partner and I had class or club commitments during times that the lab was open, and so we would not be able to get to the lab to work on the iOS project until very late in the evening. I think Professor Sheriff should give teams who do not have a Mac extra time to complete the iOS mini app. Pertaining to the question regarding the number of classmates per team, I think that having three to a group for the final project might make the workload a little easier and allow the teams to make their app even more advanced. With the timing of the final app being so close to finals and around Thanksgiving, there was a bit of a time crunch that took away from our ability to code an amazing app. Awesome class! one of my favorites at all of UVA Course could potentially incorporate more (detailed) lectures on Android/iOS development topics (dos, dont's, ways to do important but foundation actions like data transfer, etc.). Lectures could be less standard but the course itself was valuable. Professor Sherriff is also a great instructor. Really enjoyed this class. I liked how the material was taught in a way that cut the B.S out of it and taught you what you needed to know in order to be able to do mobile app development. Very helpful for future jobs. Partners for projects could be better, after the initial random partner choosing, if you ended up with a bad partner or partner dropped the class, you were left out of luck