

# CS 4720-001 Mobile Application Development - Spring 2017

ENGR (18585)

INSTRUCTORS: Sherriff, Mark (mss2x)

Respondents: 44 / Enrollment: 79

Summary: CS 4720-001 Mobile Application Development - Spring 2017 (18585)	
<b>Overall Course Rating</b> CS-4720-001 Mean 4.46 CS-4720-001 Std Dev 0.68 CS-4720-001 Response Count 219  SEAS, 4000-level courses Mean 4.16 SEAS, 4000-level courses Std Dev 0.94 SEAS, 4000-level courses Response Count 10874	<b>Overall Instructor Rating</b> INSTRUCTOR: Sherriff, Mark Mean 4.62 Std Dev 0.54 Response Count 308  SEAS, 4000-level courses Mean 4.35 SEAS, 4000-level courses Std Dev 0.90 SEAS, 4000-level courses Response Count 15864

~ QUESTIONS AND DETAILS ~ ~ ANSWER MATRICES ~

<p><b>1. Attendance in this course has gone down in recent semesters. Any thoughts as to why? What can I do to improve?</b></p> <p style="text-align: center;">~ Question Type: Short Answer ~ contributed by Sherriff, Mark (mss2x)</p>	Results for CS-4720-001, Sherriff, Mark	
	Total	Individual Answers
	36	See below for Individual Results

The beginning lectures of the course cover Android and iOS programming tutorials in class, and Sherriff walks through code in lecture. However, this is not an effective, interesting nor engaging way to teach how to code in Android/iOS. Rather, it would be more worthwhile having homework assignments with tutorials to implement features (much like BucketList or the core skills app) than to walk through code in lecture. These lectures are a weak start to the semester, and likely caused most students to not attend subsequent lectures, even when they were not code-oriented. The material itself is also on the relatively simple side and not too technical, which may lead students to just read slides rather than attend lecture. More in-class discussions and activities might be a better way to engage the class on these subjects.

I think that when you tell people attendance isn't mandatory you will automatically have a subsection who will not come. However if you wanted people to come more often I would suggest more in class activities.

People think they can learn the things by themselves. Sometimes the things taught are too high level so people think they can just read the powerpoints and get everything.

People will skip any class because it is easy. To really hit them hard. stop posting the audio... I never skipped bc I am paying all this money to go to this university. Why get here and not go class? That is wasting money.

I honestly enjoyed attending lecture, and I think attending lecture saves time in the future, so I'm not sure why anyone ever skips class regularly. People are probably more likely to skip class because the slides and lecture audio are posted, but taking that away will hurt all students; I frequently used the slides to refresh on concepts.

Not really? Seemed like a fun course. Maybe just competition with other 4000 level classes? I don't know what the general philosophy behind most people's choosing of their classes is, and I know virtually no one, so...

I think a lot people don't come to lecture because there are lecture recordings on collab and code in github.

You don't track attendance, and your grade is based on projects. It's similar to CS4750 in this way, there really isn't any incentive to go to class if your grade is based on projects. I would just track attendance regularly if you want people to show up. We won't think you're a stickler.

I think it's because people know they don't have to come, which personally I appreciate. Unfortunately, many students (particularly the fourth years who usually take this course) will not go to class if they don't have to.

Because you upload the powerpoints online and provide audio recordings of the lectures, it is very easy to learn the material without going to class. This is great for students who are sick or have something come up, but is not great for motivation towards coming. I personally came to all but one lecture and enjoyed it alot, but I can understand why others did not. The only way I can think of improving attendance is going back to random attendance checks.

I found my own attendance slacking toward the end of the semester because I felt confident I would get a good grade and wanted to spend my energy on classes I was more worried about. Judging by how high the average GPA is on Course Forum, I would assume most people think their grades are safe for this class and don't feel the need to attend class. So I guess my suggestion would be to make the class harder, but I would argue against that suggestion because I think the class is great as is. Maybe making attendance mandatory is the right solution.

Make attendance mandatory, make it a M/W or T/Th schedule instead of M/W/F (sorry I'm probably not showing up on Friday), and maybe even make the course later in the day. I don't think the attendance reflects the lecture quality. But in a course that's largely project based, it was easy to justify skipping this course when other more pressing needs presented themselves. If attendance was mandatory or if the course was more in the middle of the day (1pm or 2pm), I'd have little to no reason to skip.

I like going to class, I think you're doing a good job. The problem for me is that sometimes I really need the extra hour to work on another class during weeks with really heavy workloads

More engaging in class activities, like the wire framing ones.

The attendance is low because you don't need to be in-class to do well. There are tutorials for everything you could possibly need for you app/mini app online. You would need to offer something in-class, that pertains to the grade that you can't get outside of it. I know that just means attendance but that's all I got. You could randomly give extra credit to those that do come every day (cough).

More frequent attendance checks

Because it isn't mandatory. You can easily correlate attendance to class by your attendance policy, regardless of the subject.

One of the things that has been reaffirmed in my mind after this semester is that in order to learn how to develop mobile applications, you have to develop mobile applications. It is a fundamentally difficult skill to teach and learn in a classroom, lecture environment. The one thought I have in terms of improving attendance would be have more lab days. We had two of them, but more days where we can show up and work on an app and ask you and the TAs questions may help overall attendance.

Not sure, but you can make attendance mandatory or have in-class quizzes.

I think the reason attendance has gone down is that the slide sets are online and easy to read and get the gist of for tests. You are honestly the best cs teacher I've had here, but the structure of the class just lends itself to people missing.

Not sure, the projects are mostly unrelated to the lectures. It would work to not post lectures/post partially completed lectures. However I am not sure that would improve the course and then people would unwillingly go to lecture

Classes are recorded and college students are lazy. It's a difficult situation. Recording classes is genuinely helpful for people who couldn't make it for a legitimate reason and for people who want to review but people often take advantage of it. I personally missed a day or two to listen to the recording in the comfort of my home.

I think it's the balance of projects. I'm coming from an astrophysics background (I guess that's enough to identify me, but okay), so the workload seemed balanced for me, but I also see a contrary point, that more time with the projects will help us refine it more, and the projects are what objectively give us our grade. Another way to look at this was that the course material didn't directly impact our grade. I'm still of the opinion that the course material holistically increases our understanding of the material, but I could see how others might now see it that way.

In general if classes aren't required then people won't come. That is just a by-product of people becoming busy in other classes and having to do work for those classes.

I think that students will often skip a class just because they feel that they can. The material was engaging and you're a great lecturer so maybe just add some random quizzes or something. That being said, Friday will always be a tough day to get students to come in.

A lot of the material is you teaching from the slides for 20 minutes, and then doing demos which consist of you scrolling through already written code. This can be accomplished by the student just by looking at the code, you walking through it really doesn't add that much to it.

Make the course a lab/lecture where students follow along with coding different things. And, the only way to get the code needed for the projects is by going to lecture.

The topics aren't always engaging. Having required attendance may make some students feel like the other classes are not required

The class talks a lot about design and we don't do much programming. I know that the look and the feel of the app is important but it would be nice to talk more about how to build apps. Going over more kinds of views, payment methods makes it more engaging and fun to come to class.

A lot of what is taught in this class can easily be found online in numerous forms (i.e. the dozens of tutorials). Maybe more in class "labs" would increase attendance as well as reinforce concepts.

There is a lot of Googling that can be done to learn things. If you perhaps give better/faster in class tutorials at the beginning of the semester that cover more it would make more sense to come then. It is a little slow that I think bores kids who stop coming. Then, for the second half of the semester maybe cover better subject (also at a faster pace). The cross-development was good, VR was cool, but a lot of the UI wasn't actually that helpful and although ethics is interesting for a short conversation, was too much and boring. I showed up, but most classes I could have skipped. "Do more things faster"

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

I attended class regularly, so it's difficult for me to guess why other students aren't coming. Maybe they feel like the material isn't rigorous enough? I really enjoyed class and felt like it was very useful to me. Hmm. Maybe students are super stressed out with other classes and they determined that missing Mobile allows them to do better in another class while still doing alright in mobile?

No required attendance = natural reduction of students coming to class. People get busier & lazier, which contributes to their likelihood of skipping. I think your course is awesome, and the attendance is more of a general college student type deal.

Making the time later

Course content at face value doesn't seem to relate to the assignments, causing people to feel it is unnecessary. Although, this is not true.

People are inherently "lazy" to go to class which in itself is an issue of all classes I feel. BUT I like the new starred attendance days as I feel it forces me to stay in touch with class but also know when I have to attend. So while it can seem childish, it is a genius idea imo because it makes people know from the get-go when they have to come to class.

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

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)
43	4.44	0.55	20 (46.51%)	22 (51.16%)	1 (2.33%)	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)
43	4.44	0.55	20 (46.51%)	22 (51.16%)	1 (2.33%)	0 (0.00%)	0 (0.00%)

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

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)
44	4.36	0.69	20 (45.45%)	21 (47.73%)	2 (4.55%)	1 (2.27%)	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)
44	4.36	0.69	20 (45.45%)	21 (47.73%)	2 (4.55%)	1 (2.27%)	0 (0.00%)

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

Question Type: Short Answer

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark	
Total	Individual Answers
38	See below for Individual Results

ios development because i had never done that before

Monetization. I intend to try to do freelance iOS development post-grad and this is was a very useful lecture.

I loved VR day. That was A LOT of fun for me.

The beginning of the Android and iOS lectures, definitely. Walking through how to build an app and all the components of how the IDEs worked. I came to this course to learn how to build a mobile app, and that's what I got!

When we went over the architecture of the various platforms. It helped me understand how mobile is fundamentally different from traditional computers.

Monetization of mobile apps, if I continue to practice and develop apps after this class (and I intend to), I will try to keep the ideas we talked about that day in mind.

VR was my favorite because it was really cool to play with the technologies that we're learning about.

iOS development, because I'm an Apple fan.

I like VR.

REST was by far my favorite topic. I don't know anything about how the internet works so it was great to get some exposure to it.

Couldn't say, they were all interesting.

I really enjoyed the sensor ethics lecture. The in-class activities were fun, and they forced me to think about something I probably would not have thought about much. Honestly, I enjoyed all of the in-class activities we did, like the wireframing activities.

I always really enjoyed the days we went over ethics. Little things that we don't really think about are brought up and the discussion is really interesting.

VR because fun

Everything UI related, VR was pretty cool

VR because I knew nothing about it and it's interesting / cool.

Cross-development and VR. (expand on future of VR and maybe give a way for kids to get into VR. sure, its cool to show, but how do i program for VR??)

I liked learning about REST because it's commonly talked about and I had never learned about it before. Similarly, I enjoyed the lectures about web services, RPCs, etc. because those are common concepts that have come up in my internships.

VR, because it has practical applications in both entertainment and solving a lot of real world problems

REST/Web Services because I'm a web developer so it felt very applicable.

Wearables. The demos were cool

I liked the sensor/sensor ethics classes. Sensors are definitely a big part of the functionality of smartphones so it was cool to learn about what kind of information an app can grab.

I enjoyed the talk about ethics, but I actually just liked the whole class.

Guest lectures

The wearables lectures and the lectures pertaining to working on the code (for android or iOS) were my favorite. The wearables were interesting and a more novel topic. While the programming lectures were more practical, and they helped a lot.

REST, broadly applicable(not as much nuance)

VR was definitely the coolest topic because its a new technology and the demos of course were incredibly fun.

VR, it was the most fun day.

I really enjoyed sensor ethics, because I like thinking about the social implications of technology. Yay STS

The VR one, simply because it's something I've always been interested in and have always wanted to try.

Anything iOS related, since we don't really get much background on that.

I like the virtual reality lecture because I think that is really cool and liked to see where we were headed in terms of vr.

VR, mostly because I've been promised VR for my whole life and haven't seen it yet.

iOS Dev. It was actually pretty fun. Swift and xCode is crisp and clean, although pretty frustrating.

REST and restful apis, and learning how to connect the applications to the internet to actually DO things.

Privacy. It is very pertinent to us everyday users who seem to give up all our data unknowingly.

Sensor ethics, it was interesting to see how all of the technology we carry around with us can be used in negative ways.

Sensor ethics was a pretty fun topic as I always feel ethics in any field is a controversial subject especially when it comes to technology.

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

Question Type: Short Answer

contributed by Sherriff, Mark (mss2x)

Results for CS-4720-001, Sherriff, Mark	
Total	Individual Answers
39	See below for Individual Results

Mobile design aspects (usability, button placement)

The early ones about basic Android/iOS structure.

Monetization

Maybe UI? Prob cross-platform (I know not to try it for now)

The REST

Learning about UI / UX. I really enjoyed when WillowTree came and gave us an idea of what the field is like in the real world.

I think the VR lecture is cool.

REST/Web services because I will be working as a web developer.

initial lectures introducing to swift

The whole MVC discussion I found really helpful.

UI stuff, since that applies everywhere

REST

REST

probably everything except the VR stuff

I think core components will be most useful in the future, esp. if I end up doing anything with mobile development in the future. Sensor ethics was a close second.

Wireframing

Just about everything was useful, this has been one of the most interesting and useful classes I have ever taken.

REST stuff.

Probably the User Interface Design lectures. I have not taken Human-Computer-Interaction, and I don't know that I will get to with my schedule for next year, so this shorter and albeit more specialized version was helpful.

REST architecture and UI design are definitely the most widely applicable to beyond mobile. I don't personally plan on pursuing a career in mobile development so these general design principles were good to know and relevant.

Monetization / real world development in terms of business strategy and planning as a company

Android/iPhone architecture and HCI

I think the lectures about different types of data storage for mobile apps will be the most useful. I think it was helpful to talk about different considerations for network storage vs. local storage. Overall, I think the class did a good job showing students examples of the client/server model and remote communication. Additionally, while I had previously had a fair bit of experience with MVC, I think the MVC and mobile architecture lectures are most useful for the future.

REST and what its principles are, since that can be used in web design as well

Simply developing mobile applications in general and the usability lectures to be honest.

It's tempting to say monetization but if anything that lecture convinced me not to try to make solo apps. I think the lectures on UI design and accessibility are important reminders on the importance of keeping the software we build usable and clear to users. Having taken HCI, I have discovered that I hate thinking about UI design and accessibility but that is probably an indication of the importance of driving home the need to think about users and accessibility.

the core components of android and ios apps

Probably everything having to do with REST was really helpful.

Either the VR one, or the wearables one.

I suppose the wire framing lecture

Monetization, I'd like to do app development on the side and try to make something profitable.

Android development

I think firebase would be useful in the future because it connects people and allow them to share different data.

The beginning Android and iOS lectures, walking us through how to build the app. This, fundamentally, enabled us to build mobile apps. I could see REST being a big one too (I've just started a project where I directly used it!), but I'd still have to give it to platform introductions

Android

The UI topics. With app development I think it's just good to be aware of the user experience, not just what is easier for a developer to code.

REST, Emerging Tech VR

The guest lecture from Willow Tree

MVC is definitely the most useful for future web development beyond mobile applications!

**6. 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	Individual Answers
35	See below for Individual Results

A lot of lectures seemed kind of random, like the REST one, or the watch design one.

They were all pretty good in my mind

Going over the long list provided by Google and Apple on how to design their apps. I know it's important but if I don't even know how to make a custom button it's not really that useful.

The code walkthroughs during the class were not useful at all since most of that learning was done while following tutorials myself. These code walkthroughs are very technical and mundane, and without the need to learn it at the moment, there is no motivation to pay attention or follow along. Especially since i'll likely forget the information until later when I need it. It would be more effective to explain the core concepts (like android lifecycle) rather than the small technical details.

VR

VR

Maybe the potential issues that arise with collecting data. It was all kind of intuitive, and having to work with the people around me was annoying at best.

Probably VR, since it was interesting but the likelihood of developing for VR is slim.

After I chose the platform I wanted for the project, I was not interested in the material for the other platform

I wouldn't say anything "did not work." This was simply a great class.

I couldn't tell you, since we haven't gotten to "the long run" yet. Ask me again in like 10 years.

Wearables because I don't think I will ever use it.

the history of anything

VR, sensors, labs/required lectures(particularly the draw X ones)

I didn't think the virtual reality lectures were very useful. Maybe I am short sighted but I don't think VR will amount to much in the future and I don't think the topic works well in a mobile class.

I think Private policies are good to know but would not be as useful in the future for CS majors because it's not really the primary concern for software engineers.

A lot of the UI lectures

Everything felt like interesting knowledge to know.

I thought they all went reasonably well

Maybe because we had to go outside, but x-platform even through it's an interesting topic

There weren't any lectures that I hated. I think the cross-platform lecture is probably least applicable to me in the long run, but I still enjoyed the lecture and felt like I learned something.

Probably having entire classes where we go through example slides pointing out things seems kind of a waste. Not really a particular topic, just in general

Although it will probably be worthwhile once I'm in industry, most of the REST days were not really applicable to the class, at least in my experience.

N/A

I thought the ads class would've shown us how to actually implement and manage ads in our app (maybe using Google Ads). That would've been more useful to me. Maybe you can shorten the monetization schemes down to a few minutes to make this happen.

I did not find wireframing particularly useful, but mostly because I had already received sufficient exposure to wireframing in HCI.

n/a

I felt like the end lectures were rushed and not fleshed out enough, so the wearables, VR, and cross platform lectures. I would really like to see them integrated more into the course, and maybe into the projects as well? But I also can't figure out a way to fit all this material into the course! Like maybe give us an almost fully completed app, but ask us to change one thing? Like, "Add a screen to this already functioning Android Wear app" or "Add a green box to this VR unity environment" or "Add another screen in this cross platform app"

UI design

I think at times I lost interest when things got into the specifics of Android, but the Android/iOS split is something I don't think can be eliminated.

Monetization wasn't that helpful. Would prefer more on technical stuff than businesses stuff.

I honestly was not that interested in the wearables lectures. I get why we learned about them, but I do not see myself ever working with them. I could be wrong, they might be the future of technology and they will be everywhere, but right now they just seem like a fad.

See answer to #1, "Attendance in this course has gone down in recent semesters. Any thoughts as to why? What can I do to improve?"

Cross-platform development. It isn't terribly useful without a practical project.

They all seemed necessary

**7. 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)
44	4.17	0.92	11 (25.00%)	7 (15.91%)	5 (11.36%)	1 (2.27%)	0 (0.00%)	20 (45.45%)

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)
44	4.17	0.92	11 (25.00%)	7 (15.91%)	5 (11.36%)	1 (2.27%)	0 (0.00%)	20 (45.45%)

**8. 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)
44	4.11	1.01	13 (29.55%)	6 (13.64%)	6 (13.64%)	2 (4.55%)	0 (0.00%)	17 (38.64%)

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)
44	4.11	1.01	13 (29.55%)	6 (13.64%)	6 (13.64%)	2 (4.55%)	0 (0.00%)	17 (38.64%)

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

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

Question Type: Multiple Choice

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)
44	0 (0.00%)	2 (4.55%)	15 (34.09%)	6 (13.64%)	4 (9.09%)	17 (38.64%)

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)
44	0 (0.00%)	2 (4.55%)	15 (34.09%)	6 (13.64%)	4 (9.09%)	17 (38.64%)

**10. 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
25	See below for Individual Results

Structure the final project with less/no required optional features(felt like parts of the app were just there for the points)

Not in particular.

More guidance on choosing topics and earlier deadlines.

no

Have the option to implement less sensors if they do a really good job of other things I really appreciate not forcing a ton of sensors in to fit your rubric like past semesters might have, but still had to a little bit. MUCH BETTER, but is there a possibility to make even better?

The core skills app is not as relevant as one would expect, which gave us inaccurate ideas of how difficult the final would be. The concept was good, but it would be a bit better if we needed to set up more of the things so that we know for the final project.

I felt a little lost with the Firebase stuff. A little more help with structuring data and interacting with the database would have been nice.

I feel like I'm a bit biased since I had mobile experience before taking this class, but I felt that the projects were a great way to polish up on my skills. I can see how they could be considered extremely challenging for those who have no experience. MAYBE: include a list of common errors (such as a missing/outdated IBOulet that show up in the console as a key-value pairing issue for iOS) and how to resolve them? I knew of many of these common issues from my previous fiddling with mobile projects, but I can imagine how frustrating learning these issues DURING this semester would have been.

Perhaps make the point system more disparate. It felt like a lot of things were tied together; for example, using Firebase for both authentication and database storage.

I do not like the points grading system for the final project. I think each addition should be worth the same number of points. That way, no matter what you are working on, you won't feel like you have wasted your time working on a specific part and you won't feel like you do not have enough.

The projects were well thought out and good ways to learn the skills. The final project was open-ended which was nice for creative liberty, but there are also a lot of edge cases in mobile development that take a long time to debug and fix, but were not directly appreciated/graded. Some way of coping with this in the future might be nice.

nope

I referenced the mini app and the core skills app frequently when completing the project, so I think they were really essential to the course. That being said, the Core Skills app was very easy. In the future, it would be helpful to have more time to put towards the final project and less time for the Core Skills app.

Maybe a week longer for the project

1. add a progress bar to podcasts or 2. try videos instead of podcasts

I think that the core skills app should be given easier because I only worked on the Core Skills and then on my Project. My team are not really quick learners and we always went to OH and I feel that we are not going to finish. There should be more office hours.

I would change the timing for the project. There is too much time in between the core skills app, the milestone, and the final submission. I would make the core skills app due in just a matter of days rather than several weeks, it was very easy. There should be more checkins for the project to make sure that we are on top of our work and we don't leave it to the last minute.

If you can, do not overlap the core skills app and the final app. I ended up just focusing on the core skills app deadline and didn't start the final app as soon as I should have in retrospect.

make ios project longer

Integrate more aspects of mobile, VR and wearables being the main ones! I don't know how to integrate these without overwhelming the projects, but if there's a way, I think it would bring everything together.

Help students with firebase.

I thought the projects were great, although I was disappointed when my final project turned out to be total garbage. I suppose that is part of the learning process.

I would talk more about how to customize the look and feel of an app. Like having custom buttons and stuff like that.

I personally thought that iOS was easier to code than Android so I think I would've preferred to start with iOS.

When doing the android mini app we were instructed to simply pass the raw data through intents, but when doing my final project I came across the interface parcelable which makes it much easier to pass objects through intents. It could be my preference, but it made more sense in my head then just passing primitive data types and recreating the object on the other side.

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

Question Type: Multiple Choice

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)
44	1 (2.27%)	9 (20.45%)	11 (25.00%)	16 (36.36%)	5 (11.36%)	2 (4.55%)

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)
44	1 (2.27%)	9 (20.45%)	11 (25.00%)	16 (36.36%)	5 (11.36%)	2 (4.55%)

**12. 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)
44	2.91	0.86	11 (25.00%)	21 (47.73%)	9 (20.45%)	3 (6.82%)	0 (0.00%)

Results for SEAS, 4000-level courses							
Total	Mean	Std Dev	Excellent (4)	Good (3)	Average (2)	Weak (1)	Very Poor (0)
44	2.91	0.86	11 (25.00%)	21 (47.73%)	9 (20.45%)	3 (6.82%)	0 (0.00%)

**13. 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)
44	3.23	0.86	21 (47.73%)	13 (29.55%)	9 (20.45%)	1 (2.27%)	0 (0.00%)

Results for SEAS, 4000-level courses							
Total	Mean	Std Dev	Excellent (4)	Good (3)	Average (2)	Weak (1)	Very Poor (0)
44	3.23	0.86	21 (47.73%)	13 (29.55%)	9 (20.45%)	1 (2.27%)	0 (0.00%)

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

**14. 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)
44	9 (20.45%)	7 (15.91%)	9 (20.45%)	9 (20.45%)	10 (22.73%)

Results for SEAS, 4000-level courses					
Total	Every week (NA)	Every other week (NA)	Once per assignment (NA)	Rarely (NA)	Never (NA)
44	9 (20.45%)	7 (15.91%)	9 (20.45%)	9 (20.45%)	10 (22.73%)

**15. 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
25	See below for Individual Results

They were super helpful!

Try to be more available, and try to understand the problem a bit before just saying "lets google it together"

From my experience the one TA I knew was chill

Good comments & feedback on work

PLEASE make them understand firebase!!! Like I was stuck on how to display data from firebase for like a week and no TA had a clear answer.

Move on if youve been with one student for 10+ minutes, (TA stayed with a single student for 1 hour while 5-10 other students were waiting)

Spencer was the best TA especially for the final project. He sat with students until 1AM starting from his 6pm shift.

I never used any of the TAs.

N/A

N/A

N/A

You need more of them, and they should know at least some basics about both Android and ios. Some of them weren't helpful for one or the other, which led to a crapshoot as to if TA hours would actually be helpful.

Spencer was really great, he's the only TA name I remember. Others were great too.

I would recommend in the future having more than one TA holding office hours the day before a project was due. I showed up 20 mins before the last office hours before the final app was due had even started, there was already a queue of six people signed up, and did not get to talk with a TA until 2 hours after the office hours ended up starting. There was a good 12 people in the queue after me.

Thank you, Spencer!

The TAs were super helpful but I think having more than one TA during office hours would be a lot better. Especially when there are a bunch of people, the queue would get super long and it would take a really long time to get help. Maybe if there were more TAs it would be a better use of time and TAs wouldn't have to stay past their office hours time as much.

I just want to call out Spencer for being awesome. He was consistently the most helpful and friendliest TA that I worked with (not that the others like Khan and Acacia weren't either. They were also helpful).

The availability (office hour times) was a bit weird, consider rearranging them

Spencer is a sweetheart and it's very obvious that he cares. Acacia and Khanh's office hours are usually very funny. Alex and I would have gotten into a fight if he fixed an error that I've had for an entire week in five minutes one more time. I didn't interact with Jeff enough to get an opinion.

They were amazingly helpful

Spencer is a really great TA. He stayed until past midnight to help us complete our final projects and he is also very knowledgeable about this class. I think he deserves a raise.

~ QUESTIONS AND DETAILS ~ ~ ANSWER MATRICES ~

Nope

There are some things (onActivityResult for android, segues for iOS) that a lot of students had trouble with at beginning. ALL the TA's should at least be able to help with these things. It is very frustrating to not get something popular with a platform and a TA also be useless for something so simple. All TA's should review a couple of the basic things students usually struggle with

Some TAs were really great, some felt very flippant.

They are all so great

**16. 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	Individual Answers
19	<i>See below for Individual Results</i>

Not much actually, this has been a great course.

I wish we could have gone in depth with the other aspects of mobile development (VR, wearables, X-platform). We basically were shown, "Hey, it exists, here's some sample code," but were never given a chance to actually get some hands-on experience, which I think is the magic behind this entire class

I would have liked to go more into what we can do as developers to protect user data from being hacked into.

I would have like to have a project on cross-platform development. Since that seems to be the most applicable to the mobile market place today.

App development for smart watches

N/a

N/A

I would not add anything to the class. We talked about everything I wanted to talk about.

security & scalability - App unit testing Amazon Device Farm or some other method. - or the process of getting apps in the app store & pushing updates

VR was cool More augmented reality

Probably more on iOS coding would have been interesting!

Would have liked to go more into the UI. Being able to actually DESIGN a prebuilt app would have been cool also.

I would like cross platform to be covered a little more.

I'm not sure? I hadn't really thought about what I was hoping to learn about coming in to the course to be perfectly honest, and I was satisfied with what it did teach.

It was probably because we had to have class outside but I would have enjoyed having more time on cross-platforming.

VR (how to get involved) and cross-platform. Just some more examples of why it didn't work and give an example project or MULTIPLE

cross platform dev

iOS app building

More depth into interaction between mobile and web. Maybe go into games a bit since those are the apps that make the most revenue.

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

**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)
43	4.30	0.64	17 (39.53%)	22 (51.16%)	4 (9.30%)	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)
43	4.30	0.64	17 (39.53%)	22 (51.16%)	4 (9.30%)	0 (0.00%)	0 (0.00%)

**18. How effective were the guest lectures? Comments or suggestions for the future?**

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

Super effective. Willowtree did a terrific job

The willow tree lecture nice to see what we were learning in action, I enjoyed it

not sure

I liked them. Sorta want to be a designer.

good

Interesting and enjoyable.

I thought the Willow Tree lecture was interesting, but it was easy to doze off because it was not material that was going to be tested on.

The WillowTree lecture was good.

I found the guest lecture memorable and helpful when thinking about integrating in a team with a designer

They were awesome! This was the one class I stayed engaged in because it was full of humor and interesting material.

It was a cool aspect to see how things work "IRL"

eh not helpful

I really liked WillowTree. Cool seeing more of the interaction between the different people involved in making an app.

It was interesting to see how Willow Tree's workflow happens, but it did not really help at all with any of the material.

I enjoyed hearing from WillowTree, but they showed the uses of some very specific software (ex: the UI development software) that was cool but isn't really applicable to the class because we have a very short development time period. I thought it was interesting but not necessarily applicable

They were interesting

Loved Willow Tree

Guest lectures were great. After Willow Tree talked to us I felt much more confident about my post graduation options.

Guest lectures were very interesting, I would keep the same ones if you can.

not very helpful, but it was interesting to see people from the real world discussing the topics. However, I already had learned UX design before the class so that might be why

A+. WillowTree was awesome.

It was interesting to see what tools they used, but it could've been even better if we had a workshop and learned how to use those tools.

Willow Tree was great, it was cool seeing what real mobile app developers do!

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

It would have been more interesting if they talked more about what they looked for in app developers. Many people want to get into that after graduating and know what companies look for is a good.

I felt they were "ok" because I didn't really glean much from Willow Tree nor did I feel it really have an impact on my knowledge on any subjects.

eh

It was alright

Eh. See response to answer 1

...not very? I don't remember any of them, so...

good. very interesting.

Not that effective - didn't get much out of it.

I think the WillowTree lecture is really nice, especially for the design aspect because you don't really see those from the classes here.

Not, skip

The willowtree lecture was very interesting and a good display of the mobile industry

No opinion.

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

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)
44	4.45	0.55	21 (47.73%)	22 (50.00%)	1 (2.27%)	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)
2177	4.32	0.84	1063 (48.83%)	840 (38.59%)	164 (7.53%)	66 (3.03%)	26 (1.19%)	18 (0.83%)

**20. 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)
44	4.64	0.53	29 (65.91%)	14 (31.82%)	1 (2.27%)	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)
2274	4.27	1.00	1158 (50.92%)	691 (30.39%)	166 (7.30%)	114 (5.01%)	61 (2.68%)	84 (3.69%)

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

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)
44	4.48	0.63	24 (54.55%)	17 (38.64%)	3 (6.82%)	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)
2177	4.27	0.88	1007 (46.26%)	911 (41.85%)	140 (6.43%)	74 (3.40%)	44 (2.02%)	1 (0.05%)

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

**22. The homework assignments helped me learn the subject matter.**

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)
44	4.70	0.51	31 (70.45%)	11 (25.00%)	1 (2.27%)	0 (0.00%)	0 (0.00%)	1 (2.27%)

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)
2177	4.18	0.92	847 (38.91%)	740 (33.99%)	227 (10.43%)	78 (3.58%)	36 (1.65%)	249 (11.44%)

**23. The textbook increased my understanding of the material.**

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)
43	3.44	1.13	2 (4.65%)	2 (4.65%)	3 (6.98%)	2 (4.65%)	0 (0.00%)	34 (79.07%)

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)
2169	3.80	1.11	371 (17.10%)	346 (15.95%)	269 (12.40%)	87 (4.01%)	49 (2.26%)	1047 (48.27%)

**24. The course material was well organized and developed.**

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)
44	4.52	0.59	25 (56.82%)	17 (38.64%)	2 (4.55%)	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)
2259	4.12	1.02	958 (42.41%)	785 (34.75%)	243 (10.76%)	140 (6.20%)	60 (2.66%)	73 (3.23%)

**25. The instructor was knowledgeable about the subject matter.**

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)
44	4.66	0.53	30 (68.18%)	13 (29.55%)	1 (2.27%)	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)
2271	4.58	0.73	1528 (67.28%)	570 (25.10%)	103 (4.54%)	31 (1.37%)	22 (0.97%)	17 (0.75%)

**26. 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)
44	4.68	0.52	31 (70.45%)	12 (27.27%)	1 (2.27%)	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)
2269	4.40	0.85	1270 (55.97%)	692 (30.50%)	166 (7.32%)	62 (2.73%)	32 (1.41%)	47 (2.07%)

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

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

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)
44	4.43	0.73	25 (56.82%)	13 (29.55%)	6 (13.64%)	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)
2174	4.07	0.98	811 (37.30%)	857 (39.42%)	261 (12.01%)	129 (5.93%)	47 (2.16%)	69 (3.17%)

**28. 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)
44	4.52	0.59	25 (56.82%)	17 (38.64%)	2 (4.55%)	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)
2268	4.32	0.87	1138 (50.18%)	787 (34.70%)	183 (8.07%)	74 (3.26%)	33 (1.46%)	53 (2.34%)

**29. The instructor responded adequately to in-class questions.**

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)
44	4.66	0.53	30 (68.18%)	13 (29.55%)	1 (2.27%)	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	4.43	0.81	1279 (56.57%)	733 (32.42%)	126 (5.57%)	54 (2.39%)	28 (1.24%)	41 (1.81%)

**30. 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)
44	4.66	0.53	30 (68.18%)	13 (29.55%)	1 (2.27%)	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)
2262	4.30	0.91	1124 (49.69%)	741 (32.76%)	192 (8.49%)	65 (2.87%)	48 (2.12%)	92 (4.07%)

**31. 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)
44	5 (11.36%)	14 (31.82%)	12 (27.27%)	8 (18.18%)	5 (11.36%)

Results for SEAS, 4000-level courses					
Total	Less than 1 (NA)	1 - 3 (NA)	4 - 6 (NA)	7 - 9 (NA)	10 or more (NA)
2180	98 (4.50%)	773 (35.46%)	879 (40.32%)	304 (13.94%)	126 (5.78%)

~ QUESTIONS AND DETAILS ~	~ ANSWER MATRICES ~																
<p><b>32. I learned a great deal in this course.</b></p> <p style="text-align: center;">~ Question Type: Likert ~ contributed by Office of the Provost</p>	<p><b>Results for CS-4720-001</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>44</td> <td>4.64</td> <td>0.57</td> <td>30 (68.18%)</td> <td>12 (27.27%)</td> <td>2 (4.55%)</td> <td>0 (0.00%)</td> <td>0 (0.00%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	44	4.64	0.57	30 (68.18%)	12 (27.27%)	2 (4.55%)	0 (0.00%)	0 (0.00%)
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)									
	44	4.64	0.57	30 (68.18%)	12 (27.27%)	2 (4.55%)	0 (0.00%)	0 (0.00%)									
<p><b>Results for SEAS, 4000-level courses</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>2168</td> <td>4.20</td> <td>0.95</td> <td>988 (45.57%)</td> <td>820 (37.82%)</td> <td>205 (9.46%)</td> <td>106 (4.89%)</td> <td>49 (2.26%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	2168	4.20	0.95	988 (45.57%)	820 (37.82%)	205 (9.46%)	106 (4.89%)	49 (2.26%)	
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)										
2168	4.20	0.95	988 (45.57%)	820 (37.82%)	205 (9.46%)	106 (4.89%)	49 (2.26%)										
<p><b>33. Overall, this was a worthwhile course.</b></p> <p style="text-align: center;">~ Question Type: Likert ~ contributed by Office of the Provost</p>	<p><b>Results for CS-4720-001</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>44</td> <td>4.68</td> <td>0.56</td> <td>32 (72.73%)</td> <td>10 (22.73%)</td> <td>2 (4.55%)</td> <td>0 (0.00%)</td> <td>0 (0.00%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	44	4.68	0.56	32 (72.73%)	10 (22.73%)	2 (4.55%)	0 (0.00%)	0 (0.00%)
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)									
	44	4.68	0.56	32 (72.73%)	10 (22.73%)	2 (4.55%)	0 (0.00%)	0 (0.00%)									
<p><b>Results for SEAS, 4000-level courses</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>2172</td> <td>4.20</td> <td>1.01</td> <td>1056 (48.62%)</td> <td>738 (33.98%)</td> <td>198 (9.12%)</td> <td>117 (5.39%)</td> <td>63 (2.90%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	2172	4.20	1.01	1056 (48.62%)	738 (33.98%)	198 (9.12%)	117 (5.39%)	63 (2.90%)	
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)										
2172	4.20	1.01	1056 (48.62%)	738 (33.98%)	198 (9.12%)	117 (5.39%)	63 (2.90%)										
<p><b>34. The course's goals and requirements were defined and adhered to by the instructor.</b></p> <p style="text-align: center;">~ Question Type: Likert ~ contributed by Office of the Provost</p>	<p><b>Results for CS-4720-001, Sherriff, Mark</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>43</td> <td>4.58</td> <td>0.54</td> <td>26 (60.47%)</td> <td>16 (37.21%)</td> <td>1 (2.33%)</td> <td>0 (0.00%)</td> <td>0 (0.00%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	43	4.58	0.54	26 (60.47%)	16 (37.21%)	1 (2.33%)	0 (0.00%)	0 (0.00%)
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)									
	43	4.58	0.54	26 (60.47%)	16 (37.21%)	1 (2.33%)	0 (0.00%)	0 (0.00%)									
<p><b>Results for SEAS, 4000-level courses</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>2262</td> <td>4.34</td> <td>0.83</td> <td>1137 (50.27%)</td> <td>870 (38.46%)</td> <td>160 (7.07%)</td> <td>68 (3.01%)</td> <td>27 (1.19%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	2262	4.34	0.83	1137 (50.27%)	870 (38.46%)	160 (7.07%)	68 (3.01%)	27 (1.19%)	
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)										
2262	4.34	0.83	1137 (50.27%)	870 (38.46%)	160 (7.07%)	68 (3.01%)	27 (1.19%)										
<p><b>35. The instructor was approachable and made himself/herself available to students outside the classroom.</b></p> <p style="text-align: center;">~ Question Type: Likert ~ contributed by Office of the Provost</p>	<p><b>Results for CS-4720-001, Sherriff, Mark</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>43</td> <td>4.37</td> <td>0.76</td> <td>23 (53.49%)</td> <td>13 (30.23%)</td> <td>7 (16.28%)</td> <td>0 (0.00%)</td> <td>0 (0.00%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	43	4.37	0.76	23 (53.49%)	13 (30.23%)	7 (16.28%)	0 (0.00%)	0 (0.00%)
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)									
	43	4.37	0.76	23 (53.49%)	13 (30.23%)	7 (16.28%)	0 (0.00%)	0 (0.00%)									
<p><b>Results for SEAS, 4000-level courses</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>2266</td> <td>4.43</td> <td>0.81</td> <td>1318 (58.16%)</td> <td>691 (30.49%)</td> <td>188 (8.30%)</td> <td>46 (2.03%)</td> <td>23 (1.02%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	2266	4.43	0.81	1318 (58.16%)	691 (30.49%)	188 (8.30%)	46 (2.03%)	23 (1.02%)	
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)										
2266	4.43	0.81	1318 (58.16%)	691 (30.49%)	188 (8.30%)	46 (2.03%)	23 (1.02%)										
<p><b>36. Overall, the instructor was an effective teacher.</b></p> <p style="text-align: center;">~ Question Type: Likert ~ contributed by Office of the Provost</p>	<p><b>Results for CS-4720-001, Sherriff, Mark</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>43</td> <td>4.60</td> <td>0.54</td> <td>27 (62.79%)</td> <td>15 (34.88%)</td> <td>1 (2.33%)</td> <td>0 (0.00%)</td> <td>0 (0.00%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	43	4.60	0.54	27 (62.79%)	15 (34.88%)	1 (2.33%)	0 (0.00%)	0 (0.00%)
	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)									
	43	4.60	0.54	27 (62.79%)	15 (34.88%)	1 (2.33%)	0 (0.00%)	0 (0.00%)									
<p><b>Results for SEAS, 4000-level courses</b></p> <table border="1"> <thead> <tr> <th>Total</th> <th>Mean</th> <th>Std Dev</th> <th>Strongly Agree (5)</th> <th>Agree (4)</th> <th>Neutral (3)</th> <th>Disagree (2)</th> <th>Strongly Disagree (1)</th> </tr> </thead> <tbody> <tr> <td>2273</td> <td>4.32</td> <td>0.95</td> <td>1258 (55.35%)</td> <td>690 (30.36%)</td> <td>182 (8.01%)</td> <td>85 (3.74%)</td> <td>58 (2.55%)</td> </tr> </tbody> </table>	Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)	2273	4.32	0.95	1258 (55.35%)	690 (30.36%)	182 (8.01%)	85 (3.74%)	58 (2.55%)	
Total	Mean	Std Dev	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)										
2273	4.32	0.95	1258 (55.35%)	690 (30.36%)	182 (8.01%)	85 (3.74%)	58 (2.55%)										

~ QUESTIONS AND DETAILS ~

~ ANSWER MATRICES ~

**37. 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

10/10 would recommend

I feel like lecture Sherriff and grading Sherriff were two completely separate people. I felt that lecture Sherriff was laid-back and someone I could joke with, be very approachable, but then grading Sherriff was very nit-picky and slightly unfair at times. I wanted to put small easter-eggs in my app, but was afraid that they wouldn't be appreciated, so it was a strange duality.

Sherriff is a fantastic professor. This was the second course I have taken with him, and I actually took this class almost entirely because he was teaching it. I am taking his computer game design course next semester for the same reason.

Best CS elective I've taken so far. Tangible skills were taught, unlike many of the other choices we have for electives. MORE CS ELECTIVES SHOULD BE STRUCTURED LIKE THIS CLASS. Employers want projects and experience, this class offered the opportunity to gain both. Thanks Sherriff for a good semester

Good class. Not sure how to fix the non attendance. Lecture did seem pretty detached from the projects.

Definitely recommend this course

This class was a lot of hard work, but it was very gratifying and the class was very well taught.

I hate working in groups, but I understand the necessity, especially with a hardware-oriented class and I think that it should continue even if there is enough hardware for everyone. I think that UVA in general needs to integrate collaborative tools such as git into the curriculum and require real-world uses of these tools (e.g., requiring branching for features, requiring regular commits, etc). I really liked the use of github for submission in this class, but it was quite difficult to coordinate with a partner so there would not be difficulty with merges and we ended up pair programming almost exclusively.

Things were taken off on projects that weren't clearly specified in the rubric, so maybe work on clarification or if its not clearly specified, don't take off a ton of points. Professor was INCREDIBLE in class but could be very cold as soon as the class ended or if you went to see him in office hours.

I really enjoyed this class, and I feel like I have a basic grasp on mobile development and that I could contribute to a team developing an app.

Great class. Sherriff is a great lecturer. Sometimes it felt like he was a little short answering questions outside of class, but I was pleased overall.

Though I think mobile application development is a difficult skill to learn in a classroom, the class does pretty well. I do think a few more lab days would be useful though.

Sherriff is an amazing professor!

I really enjoyed it

I really loved this course. Just make the milestones more frequent, and the attendance mandatory, and you'll see the results that you want.

Really fun course, I really enjoyed it!

Classes that involved code walkthroughs were boring and essentially useless since most time was spent outside of class following tutorials anyways. However, the overall concepts were interesting and could be talked about in more detail. Also talking about these concepts in more detail would be appreciated. Overall, the course material was not too complex, and the course could be made more rigorous in terms of subject material. Workload was acceptable.

I really liked this class!!!! It was the first time I actually made something. I plan to work on my own app over the summer and see what happens.

I got better at the class as the semester went on

LOTS of time and effort were expected for the project, but that's likely more symptomatic of it being a 4000 level class compounded with my lack of a partner than one that everyone suffered. The lack of other homework and such made up for it. Overall, a fun class.

I thoroughly enjoyed this class and have recommended it to everyone I know in CS. Probably one of my favorite classes I've taken to date.