Doctor Johnson: First couple labs you have listed. You probably want to have much competition for that equipment. I think the only and. Hurry Charla. And Hussein believed that the two students, I think I sent your contact information, they're both will help you. You can help with getting things hooked up remotely. And so, they actually have a station set up where the remote access is. Never we have to do one more thing before we can connect it to the network. Then we'll be ready for you when classes start at January. The three ECE444 to go, three ECE 444 labs. The only thing that you might be competing with would be using that setup is ECE 526 class has some labs that use that used some of the same equipment. Right now, that class is going to be mostly virtual. So, I don't think you're going to have problems. I know that some of the some of the students on campus have already said they wanted to do the labs. So there probably be some people doing the labs, but I think work, it'll be possible to work around them without too much trouble.

## **Yuhao Li:** How long does each lab take that you think is the best?

**Doctor Johnson:** So, like, ECE 444 lab one. Actually, since you're doing computer emulation on the 444 labs, you don't have to worry about the remote access. So, you don't worry about competition, but I expect that lab one will take you a lot more time than labs two and three. It's once you figure out everything with lab one, the additional changes you have for labs two and three are fairly easy.

**Yuhao Li:** I'm wondering how long it will take to make a separate VPN groups that with limited access. I don't know if I'm right and true, a large accent determined when we can start the most controlled lab at the beginning of next semester.

Doctor Johnson: It shouldn't take that long to do it. It's taken longer than I' ve expected already. From the point of view of the person from my TAs who actually sets it up, it doesn't take very long at all. It's just explaining how it wants to be, how we want it set up. So, it's, what's taking more time? I might end up just having to have either resume meeting or a face-to-face meeting, because the email doesn't seem to be working. So, when you talk about writing the labs, I'd like you to do this kind of like what the team did last year, where you have a right up that's for the students taking the lab. And then a little bit more detailed one for the teaching assistant, who is also supporting the lab. Because the teaching assistant needs to know more than the students.

**Yuhao Li:** I don't know usually how many students will take this class and how many people should do the lab?

**Doctor Johnson:** What we would probably I some of the labs will have to divide them up into smaller groups if they're doing remotely. I'm just looking at what the enrollment was last year. Last year in the ECE444, I had 26 students on campus section and 18 that we're taking it off campus. The 18 that we're off campus were either. I hope, falls campus, which is about 800 kilometers from here. They were on engineering outreach.

**Yuhao Li and Yifan Zhu:** Do these all of 18 students take the lab at the same time or they take terms? How many students would take the love? I think we also have to schedule the time for them, right?

Doctor Johnson: Yeah and. So, what I' ve done, I mean even on campus students. There was 25 on campus students. I don't want all of them doing the lab at once either. And so usually I divide the on-campus students up into groups of before 44, I divided them and then, the groups of two or three. Or in a few cases, it might have been one person. And then the off-campus students, I would divide them up into groups. And so one of the things to think about when you are describing the labs as how many people do you think would be reasonable for our group? The three that are doing computer emulation. People could presumably do it alone, but they may learn more if they work with somebody else and talk about it as they work on it.

**Yuhao Li**: If that's when we finish our instructions, for TA and students. And is it better to invite some students or TA to get their feedback so that we can have some idea of how much time they spent on each lab?

**Doctor Johnson:** Yeah, I think that would be a good idea. It would also be a good way to see how well the instructions work. The team last year was hoping to do that, but got it when they shut everything down for COVID that went away. Because their labs couldn't be done remotely. They were made that especially hard. I can probably find some students that would be volunteers to do that to test them.

**Doctor Li:** So, doctor Johnson, do you think these 7 labs are good for ECE444 students?

**Doctor Johnson:** Some of these are mainly being part of a class that Joe Stanley is creating as well. He just wants to create a special topics class and industrial control systems. It would be very new on class. You know. I laughed one and two on the lab in the class last semester would be part of that class, and that one would also be have an outreach component. But yeah, I would like to have that many class labs and these in the 444 class too. One where the material makes a lot more sense if you can actually find some of it out.

Yuhao Li: It's not compulsory for us to finish that, right?

**Doctor Johnson:** Yeah, that one I think, would be pretty hard to do remotely. And to be able to even meet the intent of that lapped it permanently.

Yuhao Li: As we mentioned before, we would like to try to design our own experiments. Like doctor Johnson said before, in our snapshot day 2, the experiments could be related to application part or others. We may make a draft during the winter holiday. And hope we could figure something else.

**Doctor Johnson:** Yeah, it sounds work for me.

Doctor Li: Yeah, sounds good idea. So, if you like, if you need to meet like with doctor Johnson or the graduate student, maybe send email. So typically for the course itself, you're not required to work with break. I think it's good for you, because when the semester begins, you're very busy with the courses. And it might be a good idea to spend some time over the break and advance them. You have more time to work on other Courses. Pretty long. And for you, actually, this is not so much break time in China. Your classmates are still working out over this spring breaking in U.S.

Yifan Zhu: So, the week after next week, I think you're all going back for celebrating the Christmas.

**Doctor Li:** That week typically is just off. Doctor Johnson, I don't know, typically for most professors and students that we just off, you can meet like next week, next week's the final exam week, and no meeting. Then it's good, maybe start from 28. See how through to more than 2 weeks.

**Doctor Johnson:** I'll definitely be working the Monday and Tuesday. The 21 was at the 21st and 22nd. I don't know if I work Wednesday that week, but then the following week, I'd probably work for 28, the

29th and 30th. At least some, I'm not going to work all day those days, but I'll work some of those days.

**Doctor Li:** Yeah, just a call for the meeting as necessary if maybe you don't need it or you need.

**Doctor Johnson:** Yeah, I was mostly, if I work those days, I'm also going to be using it to work on research, but I can be available for a meeting, a team meeting if you need one.

**Doctor Li:** Our new semester begins on the 13th, in January 13th. And we can meet like Wednesday, 13th. Or if maybe you need to choose the time, what time do you like to meet?

Yuhao Li: I think we don't have problem with time. It's depends whenever it's convenient for you.

Doctor Li: Anyway, it's maybe we can plan like the first week. 13 or that week. You three can usually may be a discussion first and what time. So, your available time and prefer time. I think it's sent to doctor Johnson and me also send to Joe Stanley, don't forget the TA I just think this one, just as a connection between me and Smadi. So basically, he is the TA he is in charge of this project. I'm just come here to take a look. So, who is the official here, the Ta for you?

Smadi: Hi, everyone. I just. Here's my name. I'm sorry for being late. I'm at the lab.

**Doctor Li:** Do you have other things on your agenda?

Yuhao Li: Yeah, I think that's all.

**Doctor Li:** So is coming for the exam. So, no work in the exam week. I think out of that it may be begin your lab design. Don't forget to update your Wiki Page and portfolio. Can you summarize what we started or what we discussed before Abdullah coming? So maybe in one couple of sentences.

Yuhao Li: My schedule is about 7 to 10 days for each lab. And for the time difference, better for us to do the lab. I think Johnson also almost answer all the problems.

**Smadi:** Good. I think I' 11 be with the Hussein when he is setting up your connection, the connection for the labs. Just when you send invitation, please send me also an invitation like for a meeting,

could you. I actually I'm interesting to be with Hussein. When he is making the connection of the labs.

**Doctor Johnson:** Or he wants to learn how the remote access and remote connections work. Anything else?

Yuhao Li: I don't have anything else.

Yi Ding: You mean how to remotely access in the lab?

**Doctor Johnson:** Yeah, so we don't have that set up yet, but Abdullah wants to see how learn how I want to learn how we set it up at our end, and also see how it would work for somebody to come in remotely. That will help your team.

**Doctor Li:** So, you don't have other questions?

Smadi: I'm good.

**Doctor Li:** Then work hard for your final exams. And the design of the break. And so there, second design review will be in need February. So less than 2 months, I guess, because we have the break.

**Doctor Johnson:** I think the design reviews, so it's a bit more important than this snapshot.

**Doctor Li:** So, work hard. And toward this second design review, so enjoy your finals, enjoy your break.

**Doctor Johnson:** Good luck with finals and have a good break. I Mark you when you have your next meeting.

Doctor Li:Let us know when you like to are made like, During the week or for. Tiny forest and a tiny 8th. I've already money to the Wednesday because that Johnson is available at that time. And also, maybe ask Abdullah and Hussein. So, the greatest also take the break, they will not work, right? Doctor Johnson?

**Doctor Johnson:** They will commute to work. They might do some I there. Hussein will be paid on research grants for a break. It does have. He does have some vacation leave needs news and he has some Burlington news. He will be taking some days off.

**Doctor Li:** That's all for today, goodbye!