#	Question	Answer(s)
1	when can we expect to hear the decisions about the ASE appointments for the next semester?	Likely over the summer
2	is the min norm also the point closest to the origin?	live answered
3	Should we expect underdetermined systems in the final?	Only within the scope of what we studied in module 1 mainly. Today's lecture is just a bit of fun and motivation for future classes
4	would these be in the lecture notes?	No, we're going a bit beyond the scope of the class for fun. Slides will be posted though.
5	Is it safe to say that every system with infintely many solutions is underdetermined system?	yes. but we don't like systems with infinite solutions. We try to build models and reduce complexity so that we have a solvable number of solutions
6	why keep the zero values in the system if they don't contribute to the measurements?	Those zeros are the system properties, we don't have control of them, so we cannot remove them from the system, even though they don't actually contribute to the measurements.
7	Is the content from now on just for personal interest? My head will break if this stuff is on the final lol	yea, this is just for fun. some motivation for the techniques we use and future classes
8	What is the best check to ensure that the system is underdetermined system?	Generally if we have more unknowns than equations (measurements), the system is underdetermined. Or if we do Gaussian elimination and end up with infinitely many solutions.
9	As sparse as possible = as many 0's as possible?	Yes!
10	In the final exam if we get an underdetermined sys, should we use x = Atrans(AAtrans)^(-1)*b or solve it through parameterization we learned in module 1? Do we get the same answer from both ways of solving this?	We will not require the x = Atrans(AAtrans)^(-1)*b solution. Please follow what we learned in Module 1 (Gaussian elimination) and follow the instructions in the problem (give parameterized solutions or give one example solution, etc.).
11	wouldn't the columns of A need to normalized too for A_tp*A to be an identity matrix?	Yes, we need A to be an orthonormal matrix.
12	what does it mean to make a matrix orthogonal?	We want the columns of the matrix to be orthogonal to each other. There are algebra techniques to do that
13	Why is a random matrix almost orthogonal	The inner product of two unrelated random vectors is close to zero (the positivs and negativs almost cancel out each other), so two unrelated random vectors are almost orthogonal.
14	Using sparsity how do we go from underdetermined sys to overdetermined sys?	If we know the unknown vector x is sparse, and if we know which elements of x are zeros, then when we solve for the system we can remove the zeros in the x vector and the corresponding columns in the A matrix to reduce the number of unknowns and make the system overdetermined.
15	Do you need a lot of background knowledge (such as ML, optimization, ...) to start doing research in computation imaging ?	live answered
16	Thank you so much Bob and Xiaosheng for being so prompt and helpful with your responses! Really helped us all a lot. Thanks a lot!	<3 glad to help. Hope yall got something good out of the semester!
17	Are there certain specific criteria that the course staff is looking for while selecting ASEs? Are there any basic requirements?	
18	wait what??? waitlist already	:(What you can do as students is collectively lobby the department to hire more TAs and expand class size. Getting on the waitlist will also help get their attention that there is demand to expand the class.
19	could professor waller please talk a bit about the best classes she took as an undergrad?	
20	if we're eecs majors, do we get priority for 16B?	
21	Can I take 127 after 16B? Is it ok to skip 120?	127 isn't strictly dependent on 120