

LINEAR ALGEBRA I (Fall 2018 (201901))

Instructor: **Pham, Tuan**
 Subject: **MTH**
 Catalog & Section: **341 010**
 Course ID: **10305**
 Objectives:

Enrollment: **37**
 Responses Incl Declines: **16**
 Declines: **0**

Course and Instructor

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean	Univ. Mean	Course Median	Dept. Median	Univ. Median
The course as a whole was	16	43%	5.4	4.7	4.9	5.5	4.8	5.1
The instructor's contribution to the course was	16	43%	5.6	4.8	5.0	5.8	5.0	5.4
Clarity of course objectives or outcomes was	16	43%	5.4	4.8	4.9	5.6	5.0	5.2
Clarity of student responsibilities and requirements was	16	43%	5.4	4.9	5.0	5.5	5.1	5.3
Course organization was	16	43%	5.1	4.7	4.9	5.1	4.9	5.1
Availability of extra help when needed was	16	43%	5.6	4.9	5.0	5.8	5.1	5.3
Instructor's use of various instructional techniques to accommodate differences in learning styles among students was	16	43%	5.4	4.5	4.8	5.4	4.7	5.1
Instructor's interest in my learning was	16	43%	5.6	4.8	5.0	5.7	5.0	5.4
Instructor's ability to stimulate my thinking more deeply about the subject was	16	43%	5.6	4.6	4.9	5.7	4.8	5.2
Instructor's timely feedback to tests and other work was	16	43%	5.3	4.8	4.9	5.4	5.0	5.2
Instructor's ability to develop a welcoming classroom environment for all participants was	16	43%	5.5	4.9	5.1	5.6	5.1	5.5
Instructor's evaluation of student performance in accordance with course objectives was	16	43%	5.5	4.8	5.0	5.6	5.0	5.3

Note: 1:Very Poor; 2:Poor; 3:Fair; 4:Good; 5:Very Good; 6:Excellent; -1:Unable To Rate;

Instructor's Questions

Question	Number of Responses	Response Rate	Course Mean	Dept. Mean	Univ. Mean	Course Median	Dept. Median	Univ. Median
The instructor was well-prepared for class.	14	37%	5.6	5.6	5.6	5.8	5.8	5.8
The instructor presented the subject matter clearly.	14	37%	5.2	5.2	5.2	5.3	5.3	5.3
The instructor treated me with respect.	14	37%	5.9	5.9	5.9	5.9	5.9	5.9

Note: 1:Completely Disagree; 2:Mostly Disagree; 3:Somewhat Disagree; 4:Somewhat Agree; 5:Mostly Agree; 6:Completely Agree;

Narrative comments and suggestions (3 comments)

Q: Please comment about ways to improve instruction.

- 1 "Remove the grader and have someone who grades fairly do it. Tuan did a fantastic job with class instruction and I really enjoyed his lectures, but the grader was not consistent with his ability to grade fairly between different students." -- Wyatt Whiting
- 2 "My main issue with this course was that some of the homework problems turned into repetitive number crunching, especially early on. Otherwise, this class was really fun and interesting!" -- Benjamin Lee
- 3 I really liked the additional component of lab working using MatLab and think that should be added to all 341 classes. However the class size needs to be smaller since this is new info and many questions arise. With only a 50 minute class there is no way to truly cover all the

info and questions.

Instructor's Questions (29 comments)

Q: How did the lab component help you to better understand the subject?

- 1 "The lab component felt less like a lab designed specifically for MATLAB and more like an extension of homework that was made easier with MATLAB. I found myself skipping MATLAB a lot and using either paper/pencil or WolframAlpha because MATLAB was really imprecise with a lot of the calculations I did. However, I'd say that doing the labs did have a net positive effect on my understanding of the subject." -- Wyatt Whiting
- 2 "I think it helped my understanding of the concepts." -- Alex Satrum
- 3 "It allowed me to explore many of the ideas and processes involved with the course material without getting bogged down in doing everything by hand." -- Benjamin Lee
- 4 provided good additional practice with concepts and applications but the practice was not worth it for how much time it took to complete the lab, especially when it is only worth half the points of a normal homework
- 5 The lab component forced me to understand the questions conceptually so that I could also solve it using code which made me think more deeply about the questions and the way they were solved.
- 6 There wasn't really a lab component, but the in class exercises helped.
- 7 yes
- 8 I enjoyed learning to use MatLab. Doing the lab exercises made the applications easier to relate to. It also helped me to dive into the program more and begin to learn just how powerful a tool it is.
- 9 "The lab forced me to apply what I learned and try to solve problems more creatively. I felt like it was a good challenge to complement the course. I also think learning to use Matlab is a valuable skill." -- Madeleine Smith
- 10 I understand the subject by doing HW. As for lab, I just feel it is interesting, but I do not think it help me understand subject.
- 11 "The lab component was one of the most important parts of the class. I don't think I would have had the practical understanding of linear algebra without it. The labs were related to what was taught in class, but because it presented it in a different way it enhanced understanding. I think these labs are best as a type of homework assignment, as opposed to having a dedicated time to it. This does allow students to not do the labs, but for me having the ability to take plenty of time to work my way through problems allowed me to understand why the formulations work as opposed to only knowing how to use them." -- Christopher Houck

Q: What did the instructor do that most helped your learning?

- 1 "Have office hours where he was willing to help for whatever reason. It was cool that he was able to explain concepts in a different manner that was easier for me to understand, as it made an initially confusing concept like change of basis into something much easier to understand." -- Wyatt Whiting
- 2 "Examples using real numbers really helped. I'm not the biggest fan of abstract problems in math." -- Alex Satrum
- 3 "He was very clear about material in class, and connected different concepts together in a really cohesive way." -- Benjamin Lee
- 4 He was good at explaining things, making hard subjects with long proofs simplified into something that made sense to students and could still be grasped conceptually.
- 5 He made sure to give multiple examples especially for difficult concepts which helped facilitate learning.
- 6 yes
- 7 He was always quick with responses to questions, provided ample office hours, and was always open to helping. He never once made me feel like I asked a dumb question. He seemed genuinely interested in my learning and was excited to share his love of math. He also never took himself too seriously which made him approachable and easy to talk to. Putting up his lecture notes was a huge help to fill in any gaps in my notes of things I missed.
- 8 "Walking through examples in class helped the most. For me, going over the homework in office hours was essential for my understanding in the class." -- Madeleine Smith
- 9 Giving example after providing concepts.
- 10 "I think that spending time to write the lecture out on the white board adds more to the class than most people realize. When the instructor works through problems with the class the students learn how the instructor would think to solve a problem." -- Christopher Houck

Q: If there are one or two things about this course (textbook, assignments, environment, instructor, etc) that

you see could have been done differently, what are they?

- 1 "I don't think anything in the course was poor enough to justify changing, but it would be cool if we saw more real-world applications of linear algebra. We did a few, like the Hill-2 cipher and chemical equation balancing, but I feel like exposing the students to more applications of linear algebra would motivate them more." -- Wyatt Whiting
- 2 "I would probably reduce the number of homework problems that are effectively the same or repetitive. Allowing people to use calculator RREF after a certain point was a step in the right direction, but I also think operations like finding the determinant should be allowed to be done with a calculator after students do it by hand a few times. In addition, I think allowing RREF but not inverse is a little weird, since you can generate the inverse of a matrix directly by doing RREF of an augmented matrix, so I end up writing out that entire thing many times. Fairly quickly, I started wishing I could just do the inverse directly and not use up the extra paper for a trivial step." -- Benjamin Lee
- 3 Having a textbook so that if we didn't understand something we could look it up in the book.
- 4 I think using a textbook as structure for classes would help keep them organized as well as provide a place for additional explanation. The provided textbook was helpful, but it wasn't as thorough in some areas.
- 5 Smaller class size. Over 45 people is too much for this much new information in only 50 minute class. The textbook was almost useless. I utilized several other linear algebra texts and online resources to get a grasp on the concepts.
- 6 "I think having homework due the week of the midterm was challenging. I would also have liked to know the main target of what we would learn at the start of each class, just to help organize my notes a bit better." -- Madeleine Smith
- 7 Lab. I think lab is too much work to do.
- 8 "The problems with writing lecture on the white board is that it allows errors. If the instructor goes to fast they will lose students, but going to slow also loses students interest. If the instructor presents information clearly and pauses to allow students to process I think that the use of a white board is very effective." -- Christopher Houck