



**Graduate Course Evaluation for Pengtao Xie
Department of Electrical and Computer Engineering**

ECE 269 - Linear Algebra and Application
Section ID 32434
Section Number A00
Winter 2021

**Number of Evaluations Submitted: 39
Number of Students Enrolled: 86**

1. What is your reason for taking this class?

31 (81.6%): Core Course Requirement
2 (5.3%): Subject Area Requirement
1 (2.6%): Elective
4 (10.5%): Interest
1: [No Response]

2. The Instructor was clear about course expectations.

19 (51.4%): Strongly Agree
15 (40.5%): Agree
3 (8.1%): Neither Agree Nor Disagree
0 (0.0%): Disagree
0 (0.0%): Strongly Disagree
2: [No Response]

3. The Instructor was well-prepared for class.

15 (41.7%): Strongly Agree
17 (47.2%): Agree
4 (11.1%): Neither Agree Nor Disagree
0 (0.0%): Disagree
0 (0.0%): Strongly Disagree
3: [No Response]

4. The Instructor organized class activities in a way that promoted learning.

14 (38.9%): Strongly Agree
14 (38.9%): Agree
6 (16.7%): Neither Agree Nor Disagree
2 (5.6%): Disagree
0 (0.0%): Strongly Disagree
3: [No Response]

5. The Instructor promoted and encouraged questions and discussion.

18 (48.6%): Strongly Agree
14 (37.8%): Agree
5 (13.5%): Neither Agree Nor Disagree
0 (0.0%): Disagree
0 (0.0%): Strongly Disagree
2: [No Response]

6. The Instructor provided feedback (written/oral) in a way that promoted learning.

21 (56.8%): Strongly Agree
12 (32.4%): Agree
2 (5.4%): Neither Agree Nor Disagree
1 (2.7%): Disagree
1 (2.7%): Strongly Disagree
2: [No Response]

7. The Instructor was accessible to students outside of class (office hours, e-mail, etc.).

22 (59.5%): Strongly Agree
15 (40.5%): Agree
0 (0.0%): Neither Agree Nor Disagree
0 (0.0%): Disagree
0 (0.0%): Strongly Disagree
2: [No Response]

8. I would recommend this instructor overall.

16 (43.2%): Strongly Agree
13 (35.1%): Agree
7 (18.9%): Neither Agree Nor Disagree
1 (2.7%): Disagree
0 (0.0%): Strongly Disagree
2: [No Response]

9. What is your overall rating of the Instructor?

14 (37.8%):	Excellent
17 (45.9%):	Above Average
6 (16.2%):	Average
0 (0.0%):	Below Average
0 (0.0%):	Poor
2:	[No Response]

10. General comments about the Instructor's performance

Please keep your comments constructive and professional, abiding by the Principles of Community

- Although it's the first time giving the lecture, Prof.Xie performed very hard and impressive, thank you!
- At the beginning of the course, I guess this is just another mediocre course and I am just taking this for my degree units. However, as time goes by, Professor Xie does a great job turning around the course quality.
- Dr. Xie was an outstanding professor. He was very active in answering questions on piazza and provided us with everything we needed to understand the material and succeed in the course. I'm very thankful I was able to take his course.
- Great at answering everyone's questions, no matter how simple. Answer them very quickly too. Very accommodating and understanding of the students different backgrounds
- I felt we would be better off with more guidance on project work. We could not get some of our crucial ideas validated through reasoning. This could also be due to the nature of the subject.
- I have learnt a lot from this course. In my opinion, the instructor is very good because he provides some applications and solid knowledge.
- I think the course is great. More discussions would be even more helpful
- It could be better if the final project is something directly related to linear algebra.
- making progress
- prefer non pre-recorded audio because it's easy to lose focus. but since the instructor is sick, it's fine
- Prof. Xie is very knowledgable about Linear Algebra and its applications to machine learning. I found the lectures to be quite interesting.

One minor feedback is that Prof. could try to be more helpful during office hours. For example, it would be better to provide a high level overview of some concept instead of providing a link for further reading.

- Professor Xie did a very good job considering it was his first year of being a professor at UCSD, and he had to teach remotely on top of that! He was very helpful, and making tests not as weighted certainly reduced the pressure during these tough times.
- Professor Xie is responsive both during lecture and outside of class. He would provide learning material and explanation per student's request. He is willing to take suggestions on teaching the class from students.

- Professor Xie was well prepared and was interested in student's learning. I think some improvement can be made on the course content in terms of homework and slides, but I think considering that it was his first time teaching the course, it was good. I liked the content that was closer to real life applications which was cool, especially DPP.
- Responded appropriately and quickly to feedback, including giving real world applications and changing lecture style to accommodate remote learning.
- Somehow I just can't learn from him, might have to do with the online classes.
- The explanation for class material is not very clear to me.
- The instructor is good overall but is expected to be more familiar with the knowledge of linear algebra theory.
- The instructor provide moderate teaching quality.
- The online teaching do have a large impact on all of us, I believe the in person class in the future should be improved by a lot
- The only concern was that the course was a bit light-weight on rigor and less of proofs were taught.
- The Professor did come off as an expert in his field and was kind. You could tell he put a lot of preparation into his lectures.
- the professor was very open to student feedback and greatly improved the course throughout the quarter based on feedback
- Understands students' schedule can be busy

11. I would recommend this course overall.

14 (37.8%):	Strongly Agree
15 (40.5%):	Agree
6 (16.2%):	Neither Agree Nor Disagree
2 (5.4%):	Disagree
0 (0.0%):	Strongly Disagree
2:	[No Response]

12. What is your overall rating of this course?

12 (32.4%):	Excellent
17 (45.9%):	Above Average
7 (18.9%):	Average
1 (2.7%):	Below Average
0 (0.0%):	Poor
2:	[No Response]

13. What were the particular strengths of this course?

- a combination of linear algebra and the application in machine learning

- could do a project.
- Course material is interesting and relevant to many areas of ECE/CSE
- Discussions sessions were good, all the syllabus and materials were given properly and in advance, and the instructor was active on piazza and via emails to answer queries promptly. All questions in homework and exams were exactly from content taught in class.
- Flexibility of the Project
- Great professor and TA team. Professor is open to feedback and always looking to improve
- Having a project component was a new part of the course compared to past years, and this was certainly good since we could apply things we have learned before into another project. The exams were fair, as well as his information on what to prepare for before the exams.
- I provide basis concepts of Linear Algebra
- I think the strength lied in the practical applications introduced during lectures. I liked the content in that regards.
- it's a fundamental class need to be studied by ECE students of all tracks
- Linear algebra is essential for most research in signal processing and machine learning.
- Nope
- Organized, explained material well, actively asked for student feedback.
- plenty of reference material, friendly and responsive professor and TAs
- Strongly related to practical problems.
- The instructor is super nice and willing to answer any questions during the class.
- The lecture is clear and easy to understand, anything confusing will be solved either in class or later on other platforms.
- Very clear slides

14. What suggestions do you have for making this course more effective?

- However, a lot of students aren't really into deep learning projects if they are in other fields. There is a lot of linear algebra which builds the underlying frameworks of deep learning, but I feel as if it is hard to use your own research and apply it to students in a 10-week course. The class should either have a final project or a final exam as well - having both might be too overwhelming considering students might be enrolled in other heavy courses in the ECE department as well.
- Continue heavy emphasis on class projects to let students think creatively with Linear Algebra.
- hope to teach more theory in depth.
- I am wondering about the relationship between linear algebra and the final project. If the instructor can establish more connection between course contents and the final project, that will be very awesome. Also, since there is another course named ECE285 which has the same

example project, maybe the instructor needs to point out the difference between these two courses.

- I think it will work better if it's an in-person class.
- I think the homework could be a little more developed.
- It is a core curriculum course for my program yet none of the applications were related to topics in my program. It was all machine learning focused. I would have been fine with that if I knew it was going to be a machine learning class, but I felt like I missed out on diving deep into algorithm applications that are based on linear algebra in my field in this course. I think I probably would have gotten that experience if I took the other section instead.
- It will be helpful if more lecturing and guidance can be provided on the project.
- It would be nice if we could get more assistance for the project.
- Make homework more practical have a coding component or an application to real world problem instead of deriving rules.
- Maybe more help can be provided to help students perform projects directly related to linear algebra, and its weightage can be kept to around 20-30% instead of 50% and more proofs be taught in the lectures.
- More example and exercise during classes would be really helpful
- More explanation on the theory, and more examples will be great
- Professor can provide more guidance on team projects, perhaps by having 1 or 2 meetings with them and providing more detailed feedback
- The course provided some recommended projects for students. All are from the instructor's ongoing research projects. Though they are interesting topics to work on, my feel is that they are not highly relevant to course materials. Maybe the instructor can reconsider the recommended projects for students, especially those don't have deep background in machine learning.
- The lecturer can be more familiar with the lectures
- The project throughout the course is not quite related to the course content. It might be more interesting if we have instructions on projects that directly uses what we have learned in the class.

15. What one concept did you take from this class that will shape your future?

- always ask for feedbacks actively
- Applications of linear algebra in machine learning
- Basically doing supervised research with the course project.
- Concepts of eigenvectors and applications to PCA and LDA.
- Geometric interpretation of determinant and its application in determinantal point process
- I guess everything.

- I learnt a lot about of geometric visualization interpretation of Linear Algebra in this course.
- I was forced to start working on machine learning, which will be good for me in the long run, but I still feel like I missed out on linear algebra content I was looking forward to learning about that I didn't get from this class.
- Kernel, DPP, SVD, etc.
- Learning about matrix manipulation and the different properties (properties of eigenvalues/their significance, matrix decomposition) will certainly help me in the future!
- Lin algebra application to RL
- Linear algebra, basic concept of matrix, eigenspace, vector space
- Not completely Understand all the material
- the concept of linear algebra.
It's important for future learning of machine learning.
- the relationship between classic linear algebra knowledge to the state-of-the-art application combining with machine learning and deep learning
- This course provides essential basis to my future research.

16. Do you have any other comments to add to your evaluation?

Please keep your comments constructive and professional, abiding by the Principles of Community

- Awesome instructor! He must put in 2-3x more time into teaching this class than the average prof.
- Good job on your first quarter teaching here! This is certainly the right direction the department is going in for improving classes in the MS program.
- Good job Pengtao!
- Grading scheme is great! Promotes student learning
- No, I think, in general, the course is good, more concepts being covered during the course and its application would be great
- Still think if the project can be something directly related to linear algebra, it would be better for students to learn it.
- Thank You!
- The class will be better next year.

Please note that any responses or comments submitted by evaluators do not necessarily reflect the opinions of instructors, Electrical and Computer Engineering, Academic Affairs, or UC San Diego. Responses and comments are made available without auditing or editing, and they may not be modified or deleted, to ensure that each evaluator has an opportunity to express his or her opinion.