



Course and Instructor Evaluation Summary Department of Electrical and Computer Engineering

Xie, Pengtao
ECE 175B - Prob Reasoning & Graphical Mod (A)
Spring Quarter 2023

Number of Students Enrolled: 22
Number of Evaluations Submitted: 19

PLEASE COMMENT ON THE FOLLOWING:

1. Your class level is

| | |
|-------------|-----------|
| 0 (0.0%): | Freshman |
| 0 (0.0%): | Sophomore |
| 0 (0.0%): | Junior |
| 13 (68.4%): | Senior |
| 6 (31.6%): | Graduate |
| 0 (0.0%): | Extension |
| 0 (0.0%): | Visitor |

2. Your reason for taking this class is

| | |
|-------------|----------|
| 13 (68.4%): | Major |
| 0 (0.0%): | Minor |
| 1 (5.3%): | Gen. Ed. |
| 3 (15.8%): | Elective |
| 2 (10.5%): | Interest |

3. What grade do you expect in this class?

| | |
|-------------|----|
| 13 (68.4%): | A |
| 5 (26.3%): | B |
| 1 (5.3%): | C |
| 0 (0.0%): | D |
| 0 (0.0%): | F |
| 0 (0.0%): | P |
| 0 (0.0%): | NP |

GENERAL QUESTIONS

4. I learned a great deal from this course.

| | |
|------------|----------------------------|
| 0 (0.0%): | Strongly Disagree |
| 2 (10.5%): | Disagree |
| 3 (15.8%): | Neither Agree nor Disagree |
| 5 (26.3%): | Agree |
| 9 (47.4%): | Strongly Agree |
| 0 (0.0%): | Not Applicable |

5. How many hours a week do you spend studying outside of class on average?

| | |
|------------|------------|
| 0 (0.0%): | 0-1 |
| 2 (10.5%): | 2-3 |
| 5 (26.3%): | 4-5 |
| 3 (15.8%): | 6-7 |
| 2 (10.5%): | 8-9 |
| 4 (21.1%): | 10-11 |
| 1 (5.3%): | 12-13 |
| 2 (10.5%): | 14-15 |
| 0 (0.0%): | 16-17 |
| 0 (0.0%): | 18-19 |
| 0 (0.0%): | 20 or more |

6. How often do you attend this course?

| | |
|------------|------------------|
| 5 (26.3%): | Very Rarely |
| 5 (26.3%): | Some of the Time |
| 9 (47.4%): | Most of the Time |

COURSE MATERIAL ECE 175B

7. The course material is intellectually stimulating.

| | |
|-------------|----------------------------|
| 0 (0.0%): | Strongly Disagree |
| 0 (0.0%): | Disagree |
| 2 (10.5%): | Neither Agree nor Disagree |
| 11 (57.9%): | Agree |
| 6 (31.6%): | Strongly Agree |
| 0 (0.0%): | Not Applicable |

8. Assignments promote learning.

| | |
|------------|----------------------------|
| 1 (5.3%): | Strongly Disagree |
| 0 (0.0%): | Disagree |
| 4 (21.1%): | Neither Agree nor Disagree |
| 6 (31.6%): | Agree |
| 8 (42.1%): | Strongly Agree |
| 0 (0.0%): | Not Applicable |

9. Required reading is useful.

0 (0.0%): Strongly Disagree
1 (5.3%): Disagree
7 (36.8%): Neither Agree nor Disagree
4 (21.1%): Agree
6 (31.6%): Strongly Agree
1 (5.3%): Not Applicable

10. This course is difficult relative to others.

0 (0.0%): Strongly Disagree
0 (0.0%): Disagree
7 (36.8%): Neither Agree nor Disagree
8 (42.1%): Agree
4 (21.1%): Strongly Agree
0 (0.0%): Not Applicable

11. Exams are representative of the course material.

0 (0.0%): Strongly Disagree
0 (0.0%): Disagree
3 (15.8%): Neither Agree nor Disagree
9 (47.4%): Agree
7 (36.8%): Strongly Agree
0 (0.0%): Not Applicable

12. Do you recommend this course overall?

15 (78.9%): Yes
4 (21.1%): No

13. Course ECE 175B:

- some hw questions are from the textbook and difficulty may vary, hw4 really confused me even with the steps provided by the textbook as i often fail to find the connections between steps
- Homework 4 required some very complicated algebraic derivations which I didn't feel adequately prepared for and seemed much more complex than the rest of the class. Two problems in particular dealt with probability distributions across matrices (Wishart Distribution) which were not covered at all in class and I was very surprised that no one else in the class seemed to be asking any questions about these derivations. However, learning these topics on my own were a lot of fun even if this homework took me a very long time to complete.
- Course is a bit too theoretical to really understand the material.
- Great introductory course on deep generative models!
- ECE 175B is about probabilistic models and will give you an intuition on how these models should be implemented in real life application.
- New course; Bound to be issues to resolve.
Assignments require programming libraries that are not supported by UCSD compute-resources.

Little or no workup for actual implementations of material, either practically or programatically.
Most of the material seems isolated, fragmented components that (while they seem important),

dont really tie back into how they are used or useful in application.

Classroom used for course is unbearable and not well suited for type of material to cover. Lack of visual, 'showing' what we are doing and implementing.

Auditory presentation and chalkboard proofs is not a very conducive learning strategy without demonstration for high level, abstract concepts.

I think there is a lot of potential for this class, however. With some adjustments and incremental work-up, I think future students can get a lot out of probabilistic learning if presented in a way they can both understand and use.

14. Exams/Quizzes/Papers:

- It felt like some of the homework was assigned just to keep us busy (in particular, that they were chosen for their * rating rather than relevance), as nothing in homeworks 4-5 required actually understanding the material we were being taught in class at the time, just matrix calculus and probability theory. I don't feel like I would have learned much more about the algorithms than if the answers to these homeworks, which were often just verifying statements in the textbook, were written into the textbook as appendices instead of proven by the reader. Homeworks 1-3 were pretty good and matched up reasonably well with what we had been learning, though, and another class I took this quarter (Math 114/214) also covered MCMC and Metropolis-Hastings with topical and rigorous homework, so I know it's possible to assign homework that corresponds well to what we learned in class about the last few topics -- if course staff don't have access to a large enough body of relevant theory/math questions outside textbook exercises, I would suggest supplementing only the most relevant questions with assignments like the python implementation in HW2, because I think implementing an algorithm helps in learning it (and I say this as a math major who still wants some theory/math questions to stay), or maybe questions where the student derives a slight variation of an algorithm that is optimal under a slightly different set of assumptions.
- There's a midterm, 4 HWs and a final project
- The exam was great, no complaints.
- This type of subject would be better suited with programming tasks than midterms and finals.

15. Reading [title(s) and comments]:

- A. Probabilistic Graphical Models: Principles and Techniques by Daphne Koller, Nir Friedman
- B. Pattern Recognition and Machine Learning by Chris Bishop

INSTRUCTOR Pengtao Xie

16. Instructor displays a proficient command of the material.

| | |
|-------------|----------------------------|
| 0 (0.0%): | Strongly Disagree |
| 0 (0.0%): | Disagree |
| 1 (5.3%): | Neither Agree nor Disagree |
| 7 (36.8%): | Agree |
| 11 (57.9%): | Strongly Agree |
| 0 (0.0%): | Not Applicable |

17. Instructor is well prepared for classes.

0 (0.0%): Strongly Disagree
0 (0.0%): Disagree
2 (10.5%): Neither Agree nor Disagree
10 (52.6%): Agree
7 (36.8%): Strongly Agree
0 (0.0%): Not Applicable

18. Instructor's speech is clear and audible.

0 (0.0%): Strongly Disagree
1 (5.6%): Disagree
2 (11.1%): Neither Agree nor Disagree
11 (61.1%): Agree
4 (22.2%): Strongly Agree
0 (0.0%): Not Applicable
1: [No Response]

19. Instructor explains the course material well.

0 (0.0%): Strongly Disagree
1 (5.3%): Disagree
6 (31.6%): Neither Agree nor Disagree
8 (42.1%): Agree
4 (21.1%): Strongly Agree
0 (0.0%): Not Applicable

20. Lectures hold your attention.

1 (5.3%): Strongly Disagree
5 (26.3%): Disagree
5 (26.3%): Neither Agree nor Disagree
6 (31.6%): Agree
2 (10.5%): Strongly Agree
0 (0.0%): Not Applicable

21. Instructor's lecture style facilitates note-taking.

1 (5.3%): Strongly Disagree
1 (5.3%): Disagree
4 (21.1%): Neither Agree nor Disagree
8 (42.1%): Agree
5 (26.3%): Strongly Agree
0 (0.0%): Not Applicable

22. Instructor shows concern for students' learning.

0 (0.0%): Strongly Disagree
0 (0.0%): Disagree
2 (11.1%): Neither Agree nor Disagree
11 (61.1%): Agree
5 (27.8%): Strongly Agree
0 (0.0%): Not Applicable
1: [No Response]

23. Instructor promotes appropriate questions/discussion.

1 (5.3%): Strongly Disagree
0 (0.0%): Disagree
6 (31.6%): Neither Agree nor Disagree
8 (42.1%): Agree
4 (21.1%): Strongly Agree
0 (0.0%): Not Applicable

24. Instructor is accessible outside of class.

0 (0.0%): Strongly Disagree
1 (5.6%): Disagree
4 (22.2%): Neither Agree nor Disagree
9 (50.0%): Agree
3 (16.7%): Strongly Agree
1 (5.6%): Not Applicable
1: [No Response]

25. Instructor starts and finishes class on time.

0 (0.0%): Strongly Disagree
0 (0.0%): Disagree
2 (10.5%): Neither Agree nor Disagree
5 (26.3%): Agree
11 (57.9%): Strongly Agree
1 (5.3%): Not Applicable

26. Instructor is effective in promoting academic integrity.

0 (0.0%): Strongly Disagree
0 (0.0%): Disagree
4 (21.1%): Neither Agree nor Disagree
7 (36.8%): Agree
7 (36.8%): Strongly Agree
1 (5.3%): Not Applicable

27. The instructor practiced effective teaching strategies that acknowledged and valued differences among students, including differences of race and gender identity.

0 (0.0%): Strongly Disagree
0 (0.0%): Disagree
4 (21.1%): Neither Agree nor Disagree
5 (26.3%): Agree
8 (42.1%): Strongly Agree
2 (10.5%): Not Applicable

28. Instructor Pengtao Xie:

- He is friendly and approachable and has really good lecture slides. He could explain the broader applications of graph theory or show more concrete examples, but I really enjoyed the project which let us put the theory into practice. He asks if there are questions often but there are times

the material is so new I don't even know what questions to ask. Thank you for being our professor, overall great job!

- Professor Xie always make sure that we understand the materials and cares about his students.
- He seems very knowledgeable about this topic and I like his teaching style.
- Great lecturer and a kind man!
- Very professional. Always holds goods posture and formal appearing presentation. I respect that.

Very few examples or references to understand diverse problem breakdowns. Granted, the subject matter is very difficult to find examples for online for followup questions or investigation as well.

If certain software packages/ python libraries need to be used that UCSD doesn't inherently provide on datahub, these should be mentioned in the syllabus to help students prepare a solution beforehand.

I don't think he communicated with the TA much, as some things seemed to have divergent preferences.

TA did not provide remarks for incorrect marks in grades, so information as to what was done wrong was not learned, not corretable. Solutions to homeworks presented with techniques not covered in course at the time of those homework due dates.

He seems very good at a particular teaching style (auditory, equation-oriented). While this is not a good matchup for my personal learning style (visual, transitional, geometric associations), perhaps it is good for someone else's.

I assume many students are slowly becoming more proportionally visual learners, responsive to our technological dependancies, so I hope he can find a good middle-ground for us.

He is clear, proper, and distinctive in his messaging.

I think some clear and defined course syllabus, complete with calendar and all necessary information definitive to the class in one place would benefit his teaching and lessen confusion for the students. I have seen a few instructors use github as a way to present a uniform course syllabus, complete with repository for their files that link and unlock automatically on the calendar, and ports easily to next quarters/years. This method is very handy as a student, and I assume would help the professor alleviate micro-managing the various platforms and confused students.

29. Do you recommend this professor overall?

17 (89.5%): Yes
2 (10.5%): No

Custom Question 5

30. Please provide examples of the ways the instructor did or did not create a learning environment that welcomed, challenged, and supported all students.

- During lectures, Professor asks check up questions to see if everyone is following along and doesn't mind taking more time to explain how something works.

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.

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