

Instructor: **Hand, Paul**  
Subject: **CS**  
Catalog & Section: **6140 01**  
Course ID: **31274**  
Objectives:

Enrollment: **84**  
Responses Incl Declines: **30**  
Declines: **0**

## Instructor Related Questions: Paul Hand (48 comments)

### Q: What were the strengths of this course and/or this instructor?

- 1 The professor is well prepared and good at teaching, making difficult concepts easy to understand.
- 2 The instructor is good at explaining concepts in a friendly and easy-to-understand way. So attending his course always makes me feel inspired and joyful spiritually. Also, I like that he always enables remote online access to the class.
- 3 Getting students to think in a different way than they are accustomed to.
- 4 Dr.Hand is incredibly passionate about machine learning, and his enthusiasm is infectious. He does a great job of presenting complicated mathematical concepts in ways that even people without a strong math background can understand.
- 5 The mock interview is really helpful.
- 6 I loved the exams structure: 2 7-minute interview-style oral exams, perfect to prepare students for actual interviews.  
  
Dr. Hand is hands down one of the best professors at Khoury: his teaching style is clear and concise and his learning materials are full of examples that facilitate mastering the concepts.
- 7
  - Has a very structured class
  - Takes time to explain the math properly.
- 8 The course assignments were easy, and the professor had everything planned out pretty well.
- 9 Prof Hand is a very good lecturer, with a thorough & well-organized approach to teaching. I appreciated the course's methodical approach to building a deep understanding of the fundamentals of machine learning. In particular, I liked the learning objectives and related interview questions given at the beginning of class - these were useful for building confidence in each subject, and for reviewing for the mock interviews.
- 10 Well prepared and organized, I liked the practice interviews instead of tests. Explained general concepts well.
- 11 He is a very talented instructor, and is able to very clearly explain complex topics in a way that is easy for students to grasp.
- 12 Explain complex concepts in an easy-understanding way. Also learned a lot when preparing mock interviews. Best course taken so far!
- 13 Good teaching
- 14 The professor is highly knowledgeable and skilled, adept at conveying concepts clearly and succinctly. He not only imparts knowledge but also provides insights into its origins and importance, while teaching structured communication—a valuable skill set beyond mere information transfer.
- 15 His in-person office hours.
- 16 His mathematical skills
- 17
  - Communication (say more in less)
  - Intellectual awareness of technical concepts
  - Helping with math map to ML
- 18 Prof Hand is great at explaining the minute details of the algorithms that are often overlooked.
- 19 Dr. Hand clearly is passionate and knows a lot about the subject, including the math and derivations. It helped a lot to have the notes after class as well
- 20 Very knowledgeable professor who broke down concepts in an easy way

### Q: What could the instructor do to make this course better?

- 1 Maybe emphasize more maths background as pre-requirement of the class instead of using a lot of class time reviewing some easy maths. Maybe the class can be organized in a way that uses less time for maths review and more time for neural network knowledge and application exercise.
- 2 I think this course could benefit from a more resources on the prerequisit math and material to further push students to understand the later mathematics
- 3 Personally, as a less math-capable person, I would have preferred to focus more on the execution of machine learning concepts and less on the mathematical concepts underlying them. Especially when it came to the homework.
- 4 Maybe the transition between the course's material. Sometimes I was confused why the professor starts to talk about something.
- 5 Could have made the course a little more challenging in terms of assignments and not be so particular about the format of interviews. The interviews should have been a lot more practical to mimic the real world scenario more closely.
- 6 Improve consistency in course staff responsiveness on Piazza. Allow private questions on Piazza instead of requiring students to go to office hours.
- 7 More practical applications of what we learn in class, its hard for me to really understand something without doing it. Guided programming exercises could be nice.
- 8 While I understand that TAs will sometimes have to give instruction, it may be useful for the professor to always attend classes which TAs direct, so that he can help clear up any inaccuracies/ambiguities.
- 9 Do not set class on Mondays. There are too many holidays
- 10 N/A
- 11 Nothing in particular
- 12 N/A

Q: What could the instructor do to make this course better?

- 13

It would be better if he could teach all the sessions himself. Almost four of our sessions were taught by his teaching assistants, and some sessions were conducted online. One session was canceled because he wanted us to work on our project. He was available on Zoom for any possible questions. We could have worked on the project on our own time and asked our questions during office hours, I found it unnecessary to cancel that session. The last two sessions were cut short. He reasoned that those sessions were recorded and were available on his YouTube channel from previous semesters. Office hours didn't have a fixed timing and they were updated weekly, which made it harder for me to plan accordingly. In summary, I recommend reevaluating the course structure to prioritize direct involvement from the instructor, which I believe would enhance the learning experience and foster greater student engagement.
- 14

could explain more statistics in detail not more about ML algos
- 15

- Nothing better as it is.
- 16

I was not personally a fan of the "preparing you for a job" angle of the course. I am in the Ph.D. program at Khoury, trying to get a better foundation in ML, so i would have preferred more of a research/derivation angle. I would have benefitted from another style. I think most of the students in the class were Master's students so it is understandable why the class is structured like it is.

The job-interview style examinations were very stressful, and hard to make work in a 7-minute time period.
- 17

Assignments could've been structured in a better way with trickier questions

Q: Please expand on the instructor's strengths and/or areas for improvement in facilitating inclusive learning.

- 1

same as the above response.
- 2

I appreciated that Prof Hand was responsive to feedback from students and was willing to adjust the course accordingly. With class discussions, Prof Hand was very good at listening to our answers, identifying the gaps in our knowledge, and providing clear & constructive feedback for improvement. I also thought the TAs who taught a few lectures did a great job leading class discussions and lectures, as well as answering our questions about each topic.
- 3

I think he was not particularly great at explaining complex theoretical topics. He wasn't bad but whenever he delved into heavy math I frequently got lost which hasn't happened in other machine learning classes. I have taken classes which cover some of the same topics as this course and I felt this class was almost always more confusing
- 4

Programming the assignments may some times be challenging.
- 5

NA
- 6

N/A
- 7

I understand his passion for Math but I believe that prioritizing the practical aspects of machine learning over teaching all the theory and proofs behind it would be more beneficial.
- 8

Strengths: Mathematical skills  
Improvement: explanation of complex statistical concepts can be improved
- 9

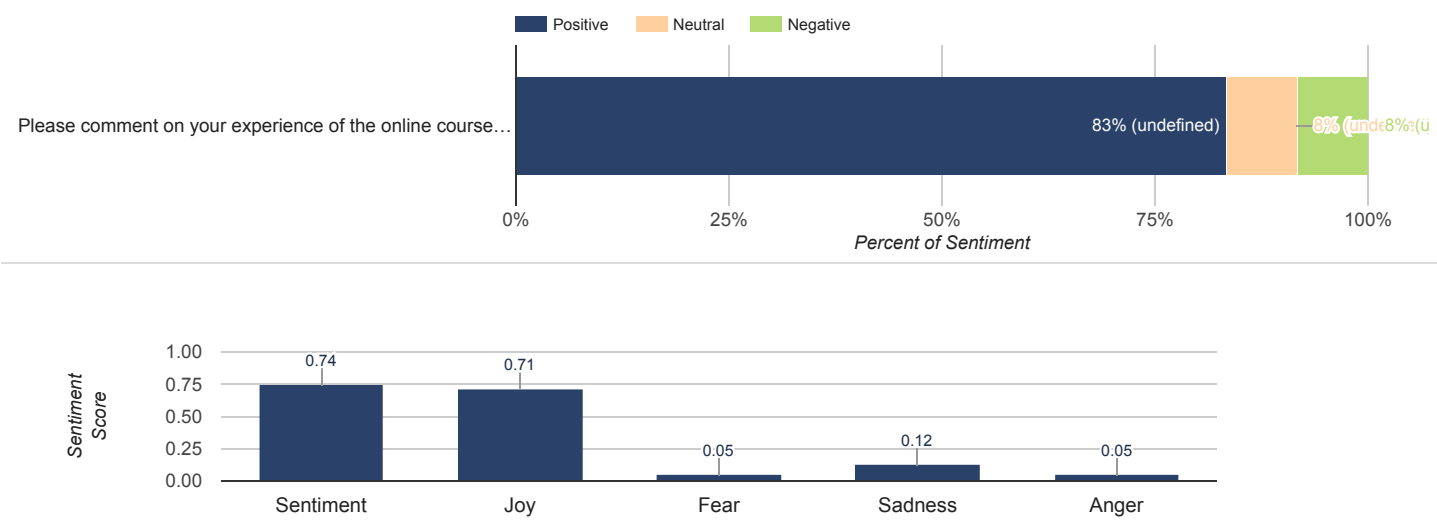
- May include a bit computational challenges with tasks to help understand math behind them.  
- Make more practice arenas to learn the art of (say more in less words)
- 10

None. It is overall an excellent professor.
- 11

Some topics were skipped which could've been included by skipping initial basic ones a little

Questions to Assess Students' Online Experience (12 comments)

Q: Please comment on your experience of the online course environment in the open-ended text box.



- 1

The instructor recorded the class time through zoom meetings and made it always possible to access the class online, which facilitates us students a lot, both attending-wise and review-wise. ★★★★★
- 2

Class notes were well-organized and useful for understanding concepts we discussed in class. Additionally provided "additional learning resources" were helpful, especially for better understanding of a concept in order to tackle the interview questions in the homework or go into deeper detail for the math-heavy questions. Piazza could have been more helpful if course staff was a bit more responsive, also if we could have asked private questions. ★★★★★
- 3

Great course ★★★★★

**Q: Please comment on your experience of the online course environment in the open-ended text box.**

- |    |   |
|----|---|
| 4  | Although it's not an online course, I feel that the online materials on Canvas are well-structured, and the Zoom recordings are very helpful for learning and reviewing. ★★★★★      |
| 5  | It was okay. ★★☆☆☆  |
| 6  | Good ★★★★★  |
| 7  | - It was pleasure learning from Prof Hand's class. I learned how to think about problems and was intuitively good for a life time ★★★★★   |
| 8  | The recorded zoom lectures and the resources provided by TAs were really helpful. ★★★★★   |
| 9  | This class was primarily offline, which I really appreciated. ★★★★★   |
| 10 | Great ★★★★★   |
| 11 | Online course environment helped a lot. I missed a few lectures and was able to catch up through the recordings. I wish the office hours had been more in-person than virtual ★☆☆☆☆ |
| 12 | Very good course! Professor Hand explained tough concepts in a very easy way ★★★★★  |

**Student Self-Assessment of their Effort to Achieve Course Outcomes (14 comments)**

**Q: What I could have done to make this course better for myself.**

- |    |  |
|----|--|
| 1  | Self learn more neural network part and more recent progress in the research field related to the course material.   |
| 2  | Have a better understanding of the terminology as new words were used throughout the course  |
| 3  | I should have come into this course with a stronger foundation in calculus and linear algebra. Whenever Dr.Hand's lectures veered into the more mathematical underpinning of ML concepts, I was completely unable to follow the lecture. |
| 4  | familiar the material before class   |
| 5  | Refresh my memory on matrices/linear algebra/statistics/derivatives/integrals, Latex, and Jupyter Notebook.  |
| 6  | I did not take adequate notes so struggled to remember things after class  |
| 7  | I should have asked more questions.  |
| 8  | lit bit more on how ML is actually applied by these companies  |
| 9  | I could have spent more time doing computational practice.   |
| 10 | To learn machine learning before taking this course!   |
| 11 | Could have attended more office hours of the TAs   |
| 12 | Indulge in own even more tougher tasks and believe in Prof Hand's help anytime needed.   |
| 13 | Spent more time in lecture. I really benefitted from the in-person aspects, but there were some conflicts  |
| 14 | Got a good math starter because some topics did have a lot of math details   |