CS/CNS/EE 155 Survey (Winter 2016)

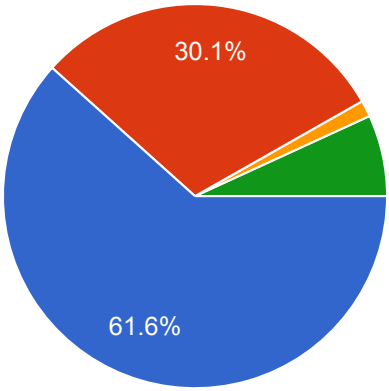
QUESTIONS RESPONSES 73

73 responses

SUMMARY | INDIVIDUAL

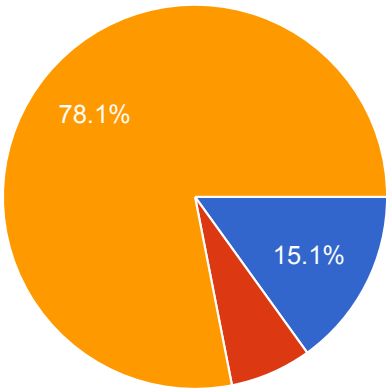
Accepting responses

Final Exam Scheduling (73 responses)



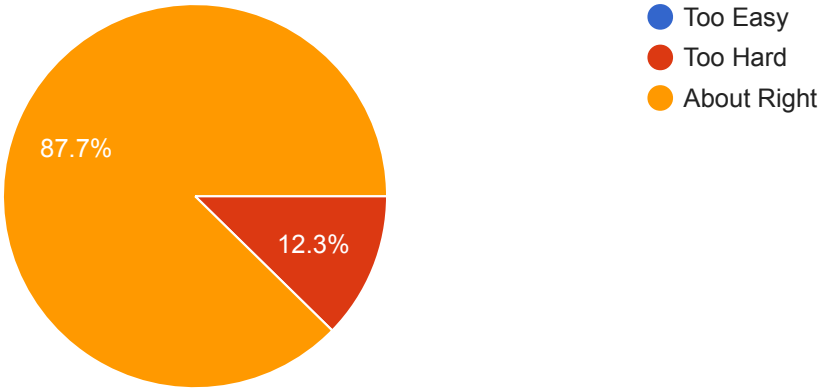
- I prefer the ~36 window (even t most students tend to delay un deadline)
- I prefer an even longer window hours)
- I prefer a somewhat shorter wir (~20 hours).
- I prefer a super short window (5 hours). Otherwise, I'll just spen hours on a 3-5 hour final.

Coding / Math Balance (73 responses)

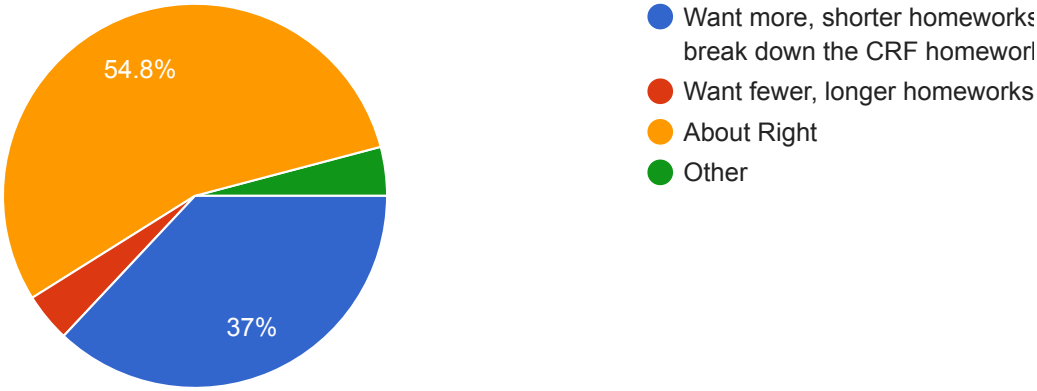


- Too imbalanced towards coding
- Too imbalanced towards math
- About Right

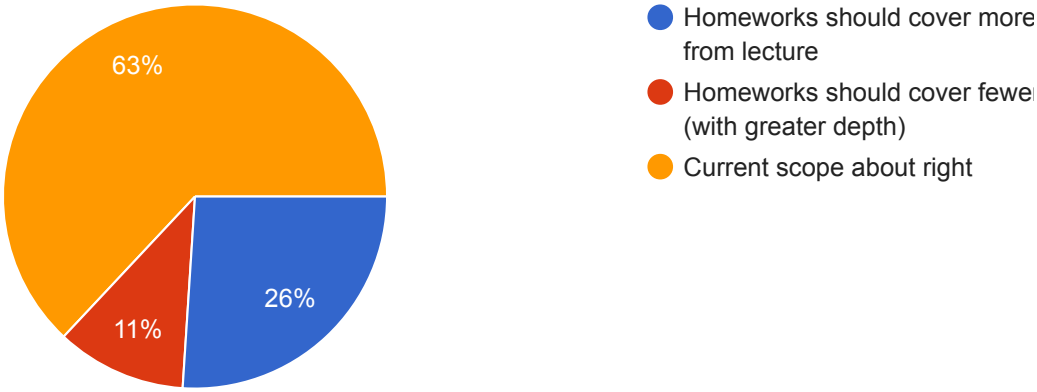
Homework Difficulty (73 responses)



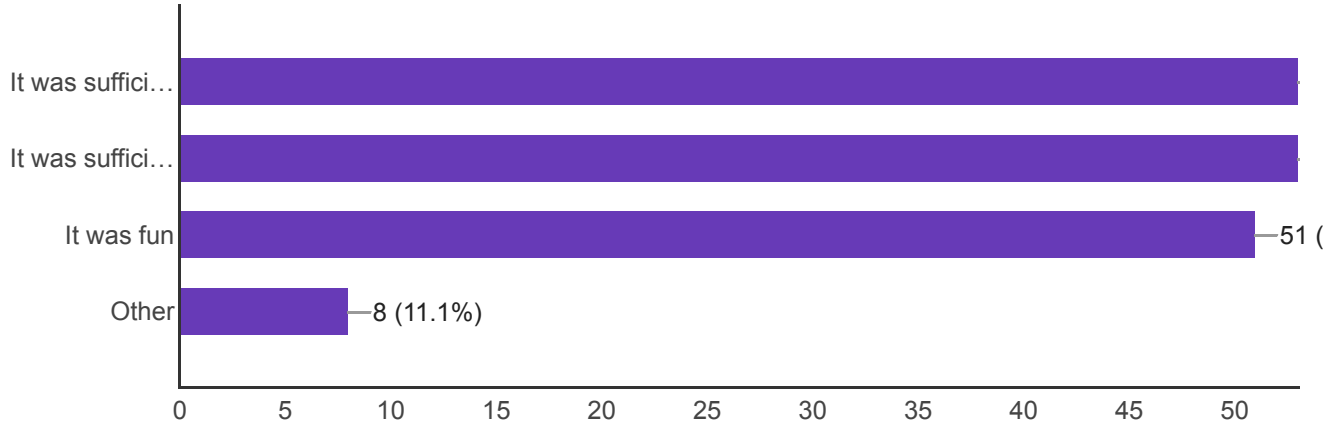
Homework Granularity (73 responses)



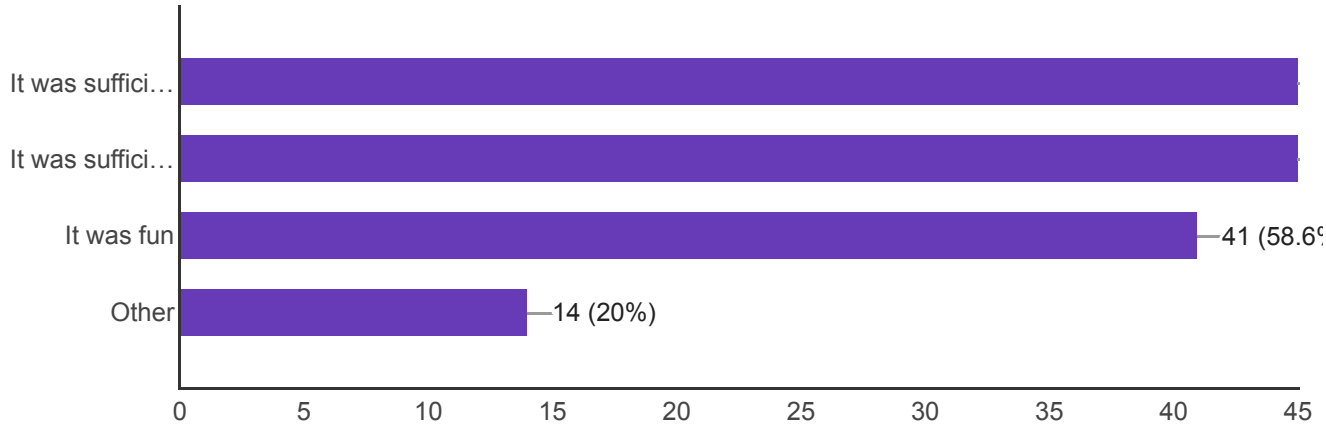
Homework Scope (73 responses)



Kaggle Miniproject (72 responses)

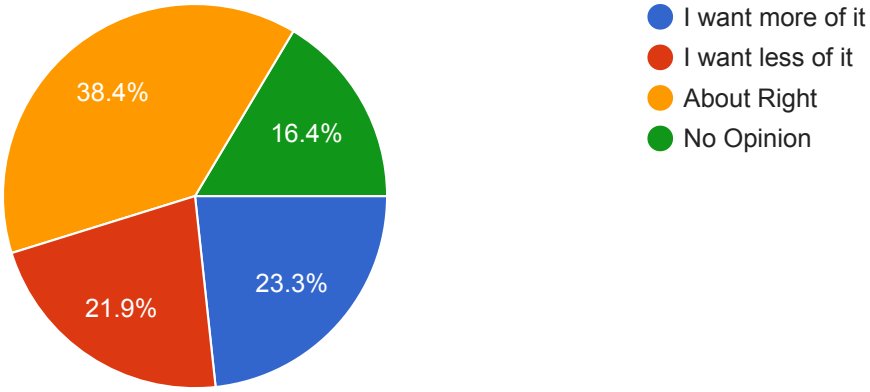


Poem Generation Miniproject (70 responses)

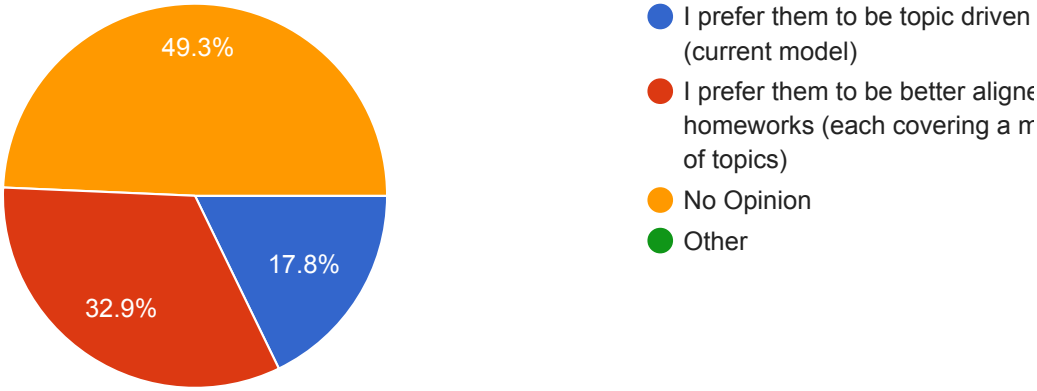


Scope of Class (73 responses)

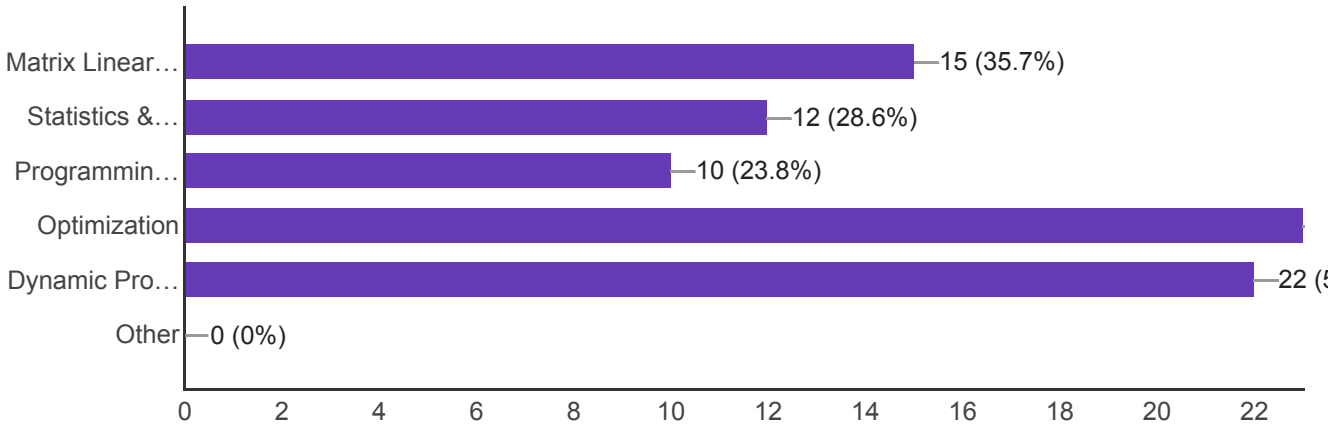
Emphasis on Discussing Recent Research (2-3 Lectures) (73 responses)



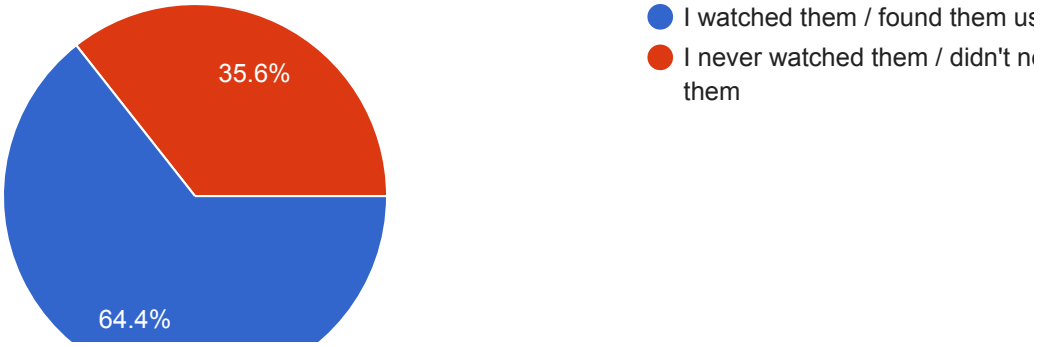
Recitations (73 responses)



I wish Recitations covered more... (42 responses)



Lecture Recordings (73 responses)



Any Other Comments (20 responses)

Maybe more mathy and less coding, don't think I learnt much by implementing gradient descent

Great class! Thank you!

Some of the coding sections on the homework were almost too open-ended and didn't seem like they had been completely thought through by whoever made the question. It was difficult to evaluate whether the model wasn't working or if the constants were just off and needed to be dialed in in order to see the desired results. Maybe giving parameters or some other way of constraining the behavior of the system would make these parts less frustrating, unless that was intentional.

The projects were fun, the sense I got was that most people didn't have time to start them until after the most recent homework was done. Also because of the nature of the projects, it seemed common for one person to end up doing most of the work since they were sometimes hard to break up naturally. Perhaps more guided individual projects or more structured/complex group projects would be better.

Overall I liked the course a lot, my main issue was I felt like we never got a good sense of how to debug the type of code required for the course. Because things like the CRF and Matrix Factorization homework had many meta-parameters and complex indexing problems, I spent a lot of time just trying to figure out if I was making conceptual errors or coding errors. I think this could be fixed if you came up with some test cases to guide us in writing the more complicated programs. For example, it would have been very helpful on the Viterbi homework if we were told the correct output for a few of the inputs so that we knew if things were implemented correctly or not.

Rigor requirements for grading, sometimes within the same set, were sometimes drastically different depending on the TA. Sometimes the amount of rigor needed was not aligned with what I felt the problem statement implied (this occurred in both directions).

Pseudo-code for some of the algorithms would be nice.

The course looks disoriented. There are often typos, and sometime incorrect results. TAs should not be undergraduates. Sometimes I observe that they are not aware of the details and lead us incorrectly. There should be less topics, but they need to be analyzed in detail. Slides are OK, but I would like to see mathematical derivations on the board.

It's often difficult to do coding implementations of certain algorithms based solely on lecture slides. TBH, lecture is a good exposition of the subject, but the format of the slides is difficult for review (hard to review). That's probably just the nature of how you (Prof. Yisong) like to lecture, so not sure how it

could be improved.

It would be nice to have clearer problem statements in homework and less typos/ clearer explanation of algorithms in lecture and homework. Because we can't cover every topic in depth, we dont have enough mathematical insight for the algorithms/statements, and therefore have barely a chance to verify statements or correct typos ourselves. Because of that, dealing with current homework and part of lecture material cause major time inefficiency when trying to solve homeworks and studying, because we get stuck in not understanding the problem statement or get stuck wondering if something where might be a typo.

Thank you so much for putting the time into making this class. It really was a lot of valuable information and I think you did an amazing job lecturing. Glad you're part of Caltech faculty--we could use more profs like you :)

A super intense course, but I learned a lot!

The course covers a lot of topics but most of them were skimmed through. It would be much more helpful of to walk through some derivations in a mathematically rigorous way. The slides have many equations, but not equations needed to understand fully the materials as there were skipped steps - it looks formidable but not insightful. The intuition of many of these algorithms were not emphasized enough so people can easily get lost in a pile of equations without understanding. The notations of the course is very confusing and inconsistent with many literature in the field, which causes a lot of problems in understanding the course materials.

I did not like the CRF assignment since I spent more time transforming the equations into code than I did understanding what the equations meant.

I think this course taught me a lot and I liked how involved the TAs and professor were in making sure that the students learned the material. I htink most of the homework assignments were of reasonable difficulty. However, I feel that the CRF and the second miniproject were too difficult to do in the time we were given.

I learned a ton, thanks for a great term!!

I am answering these questions from a graduate student's point of view. I do think undergraduates may benefit from covering less topics in greater depth. As a grad, I would enjoy more topics covered in class with the opportunity to explore specific topics on my own (through the handouts and/or class notes you've collected). However, understanding that this class is for both grads and undergrads, I think the balance of material and focus was pretty good.

Thanks for a great term!

Might be helpful to cover some practical topics like extract information from mass data and maybe a little quantitative analysis?

I thought the pace, coverage, and organization of the course was excellent, but it was hindered by poorly worded/edited homeworks and inconsistent notation in homeworks, notes, and lectures. If nothing changed between this year and next year except for making the slides, course notes, and homeworks match in terminology and notation, the course would be perfect. It also might be nice to give a higher-level view of how the different techniques presented in the course relate to each other in the grand scheme of machine learning and intelligence, to prevent the course from feeling like a set of disconnected mathematical tools.

Should have course notes for every lecture

Very good and useful lectures.