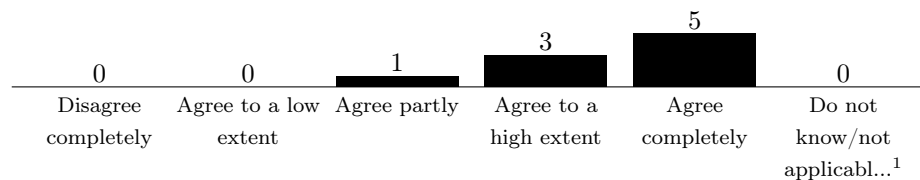




SAMMANSTÄLLNING AV COURSE EVALUATION FOR INTRODUCTION TO MACHINE LEARNING (2ST122)

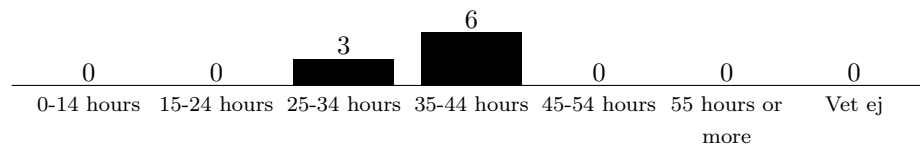
Sammanställd	
Antal svar	9
Tillgänglig	2022-01-20 – 2022-01-28
Kontaktperson	Måns Magnusson (mans.magnusson@statistik.uu.se), verksam vid Statistiska institutionen
Kurs	Introduction to Machine Learning (2ST122)

1. (*Antal obesvarade = 9*)
2. The course has stimulated my interest in the subject (*Medel = 4,4, SD = 0,7*) (*1 = Disagree completely, 5 = Agree completely*)



¹ Do not know/not applicable

3. How many hours/week did you spend on the course on average in total (including scheduled teaching)? (*Medel = 3,7, SD = 0,5*) (*1 = 0-14 hours, 6 = 55 hours or more*)



4. This was especially good about the course:
 - Writing code was good exercise.
 - Different from traditional Statistics
 - Coding was good exercise.
 - It gave a broad overview of important machine learning methods and I liked that each part was followed up with an assignment to practice the new knowledge.
 - I like the idea of the learning-by-doing approach. We had a lot of material (literature, videos etc). The course covered a wide range of subjects. The mini-project gave us a chance to apply our new knowledge (I really don't agree with students who think this should be removed!). The reading assignments helped me learn more. The teacher is very ambitious and as a student I really appreciate that the teacher is so keen to make the course as interesting as possible.
 - I think that the layout of the course was great, with the lectures on Mondays and then one assignment for each method. I also really appreciated your feedback on the assignments and specially the project.



- To get acquainted with many different areas of machine learning by reading AND implementing these techniques. I like applied courses.

I like that you take feedback from students seriously, not many other lecturers do it. It is good that we can get points at each assignment, but also at the project. This makes me work harder which is helping me to learn more.

In this program we are not really challenged to think by ourselves, we just do exams or assignments. Including the mini project we had three opportunities in total at the master program. So not take away the mini project, it is a good warm up before the master thesis.

- Very extensive course covering many different topics in ML. Stimulating and very useful for a future career.
- Many of the methods were pretty cool.

5. This could be improved in the course: (Please provide as constructive ideas as possible.)

- Shorten some assignments to save some workload.
- many things within a short time. Unsupervised learning could be just some theoretical lessons instead of 3 full assortments or just 1/2 assignments.
- Shorter assignments to reduce the workload
- The workload was all too heavy. Putting together the time spent on lectures, reading and assignment the time needed to be spent on the course was all too much. The assignments was not particularly hard, they were a challenge (some more than others) but I think they should be a bit of a challenge. The problem is mainly that there are too many. As said the difficulty of the assignments is not the problem here, it is just reading, coding, making sure Keras works, trying to write nice comments and putting the markdown file together that takes time.

I think that at least two assignments should be removed even though it means some topics cannot be covered by an assignment. Having 5-6 assignments would enable 1.6-2 weeks per assignment which is much more reasonable considering that the course is supposed to be 20h/week. Having more time for each assignment also makes it less vulnerable if you are sick some days, you have things to focus on in the other course etc. I also believe that less stress would increase the learning. Personally I think the system with VG points is a good idea and should be kept.

I know that people felt like they had to choose between this course and the other to be able to stand the stress which is really sad and I know people that also dropped either this course or the other due to the workload. And of those who stayed at two courses some never took the exam due to no time to study. And then it should be noted that we are used to taking two courses at the time.

- I think there are too many assignments and most of them are way too easy. I feel like I have worked many hours with little reward. The assignments could be solved without any deeper understanding, which is a shame. Because of the amount of assignments I didn't feel like I had the time to learn more than necessary. I don't think the programming has been particularly hard. It has been (too) easy to write code that works, which is why I wish this course would focus more on how to program or give more feedback on the quality of the solutions. I think this course could improve if there were slightly fewer but harder assignments. I think the course would benefit if the teacher spent less time grading and more time on lectures etc. If the course is not meant to be about programming, I would have enjoyed more mathematical questions or more reading assignments. Now, the course is mainly about the assignments and they are an unfortunate combination of too much and too easy.

- The workload was way too heavy for a 7.5hp course on 50%. I had no time to spend on the other course that was parallel. It also felt a bit rushed at the end, e.g. the ethics lectures that was supposed to be incorporated in the project, but held after the deadline.
- The course is just a bit too much, you need to make cuts. What areas can you leave out? Can you leave one assignment out and maybe add extra time for the first and second assignments (the most difficult ones)? Is it possible to combine 3/4 of two assignments into one assignment and extend the deadline?

A template for each assignment would be nice and would make it faster to compile the different parts of the assignment.

We do not really have that much teaching time. The readings and lecture gives me a good overview, but for me it is not enough. Is there some way you can change the classes with Andreas? Maybe have a theme for each of these classes related to the assignment. The themes should be things that may be especially difficult for the assignment. For example: go into detail about equations (kernels and dimension of matrices), derive a simple network or decision tree by hand on the board or go through some psuedo programming in detail. Spend 45 minutes of the classes for this, last part for questions. This is something I write on all my course evaluations, I you have not, please do talk to others lecturers about their courses. What was in these courses and what does the students know? Talk with Lukas about the programming course and Shaobo about the GLM course.

How is the grading done in the mini-project? I do not follow.

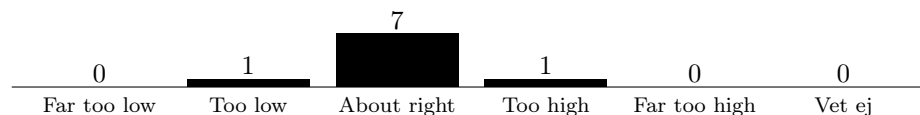
Finally, I think the level of difficulty and the workload in this course stands out compared to the other courses. Maybe that is why I and other thought that this course is a bit too much. What is reasonable? Have the other courses been too "easy"?

- Would be beneficial to expand it to a 15 credit course. Extremely difficult to maintain coursework for another course at the same time. I would have personally liked it to have been given during the second semester of the program as well, giving the opportunity to take further courses in ML like you mentioned in the beginning while doing it before writing the thesis.

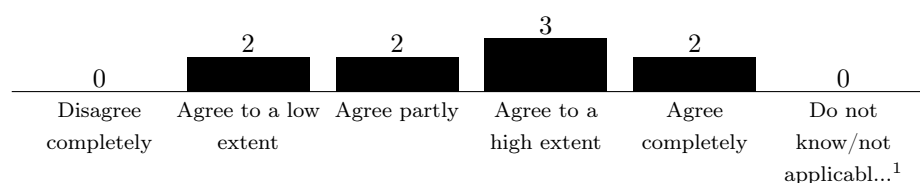
Would be good to have a bit more clarity of what is required for a mini project to get a VG.

- Reduce the material. It is a bit too much.

6. I think the degree of difficulty of the course was (*Medel* = 3,0, *SD* = 0,5) (*1* = *Far too low*, *5* = *Far too high*)



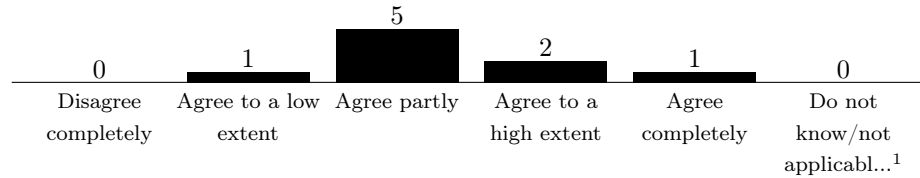
7. In general, I knew what was expected of me in this course with regard to the course objectives (*Medel* = 3,6, *SD* = 1,1) (*1* = *Disagree completely*, *5* = *Agree completely*)



¹ Do not know/not applicable

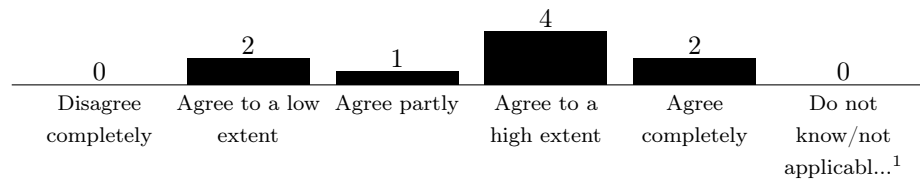


8. The teacher(s) were good at explaining the course content that was hard to understand ($Medel = 3,3$, $SD = 0,8$) (1 = Disagree completely, 5 = Agree completely)



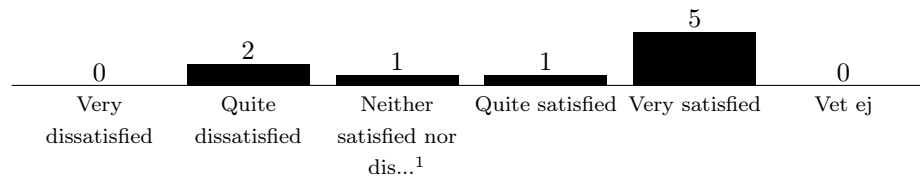
¹ Do not know/not applicable

9. The examination(s) required a genuine understanding of the course content ($Medel = 3,7$, $SD = 1,1$) (1 = Disagree completely, 5 = Agree completely)



¹ Do not know/not applicable

10. How satisfied are you with the course overall? ($Medel = 4,0$, $SD = 1,2$) (1 = Very dissatisfied, 5 = Very satisfied)



¹ Neither satisfied nor dissatisfied