

EQ4443, EQ444 & EQ4445, Project in . . . ,
Period 2 2021
Course Analysis

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February 21, 2022

Description of the Course Evaluation Process

This analysis applies to the three courses EQ 2443 - 2445, which have been run in parallel (analysis below takes the feedback from all three questionnaires into account). The total course was run with 13 students, from which 6 participated in the course evaluation.

Course Design

Briefly describe the course design (learning activities, examinations) and any changes that have been implemented since the last course offering.

The course is a project course, where the students realize a research project. This year, the 13 students were divided into 4 groups with 3-4 members per team. While technical skills (algorithm design, programming, performance evaluation, experimentation) are required, the course also requires the students to manage their project. The course is examined by taking all presentations into account, the weekly work of the students as well as a final report they hand in. The course has now been running in this format since 2018. The main difference compared to last year was that no team was smaller than 3 students.

The Student's Workload

Does the students' workload correspond to the expected level (40 hours/1.5 credits)? If there is a significant deviation from the expected, what can be the reason?

All but one of the answers is in the range 15-24h/week, which is a reasonable level. One student reports 30-34 hours/week, which is higher than expected.

The Students' Results

How well have the students succeeded on the course? If there are significant differences compared to previous course offerings, what can be the reason?

Just as last year, all students passed the course and all project groups successfully obtained the planned and expected goals.

Student's Answers to Open Questions

What does students say in response to the open questions?

The overall impression is that the students found the projects challenging as well as meaningful and challenging, but manageable.

Summary of Student's Opinions

Summarize the outcome of the questionnaire, as well as opinions emerging at meetings with students.

The responses are in general very positive. A lower mark on "Understanding of key concepts had a high priority" is fully understandable since this indeed is the case in this course.

Due to the pandemic, at least some of teams worked more at distance, which made collaboration harder.

There was a comment on the different experience and level of ambition between the supervisors.

There was a complaint that the initial project planning was due already in the first days of the study period.

Overall Impression

Summarize the teachers overall impressions of the course offering in relation to students results and their evaluation of the course, as well as in relation to the changes implemented since last course offering.

From what we have observed, the collaboration in all the teams worked well. Since all teams had at least 3 members, the project planning and work division became a natural way of working (which is the intention).

Analysis

Is it possible to identify stronger and weaker areas in the learning environment based on the information you have gathered during the evaluation and analysis process? What can the reason be? Are there significant differences in experience between different student categories?

The overall impression is that the learning environment was good and that the students found the projects challenging as well as meaningful and manageable. The questionnaire was done jointly for all three course codes and the overall number of answers was too low to distinguish between student categories.

Prioritized Course Development

What aspects of the course should primarily be developed? How could these aspects be developed in the short or long term?

This year, we had to change date for a couple of the meetings, without updating the official KTH time tables. If any such changes are needed in upcoming years, we will make sure to ask KTH scheduling team to update time tables.

The kick-off meeting will be postponed a couple of days into the first week of the study period, to give more time for the project planning. Still, it cannot be delayed too much, to give sufficient time for the project work.

Since the three courses are ran in parallel, we will try to merge the three Canvas rooms into a single course room, which will simplify the administration.

More support for the teaching assistants may be needed, to formulate the project tasks and to unify the supervision between the projects.

Other Information

Is there anything else you would like to add?

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Course evaluation EQ24443-5, HT21

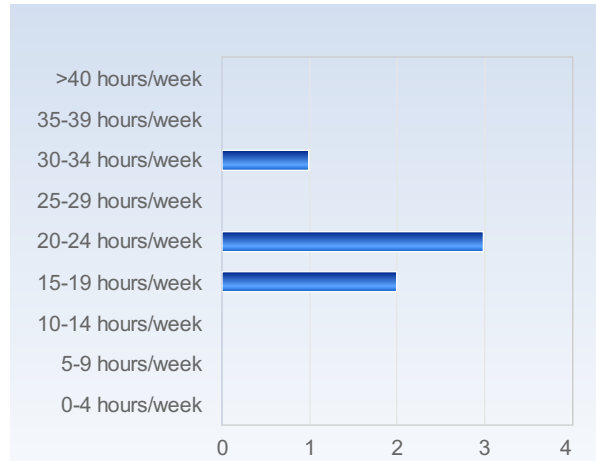
Respondents: 13
Answer Count: 6
Answer Frequency: 46.15%

ESTIMATED WORKLOAD

On average, how many hour/week did your work with the course (including scheduled hours)?

Select from the list:

Select from the list:	Number of responses	Cumulated responses
0-4 hours/week	0 (0.0%)	0 (0.0%)
5-9 hours/week	0 (0.0%)	0 (0.0%)
10-14 hours/week	0 (0.0%)	0 (0.0%)
15-19 hours/week	2 (33.3%)	2 (33.3%)
20-24 hours/week	3 (50.0%)	5 (83.3%)
25-29 hours/week	0 (0.0%)	5 (83.3%)
30-34 hours/week	1 (16.7%)	6 (100.0%)
35-39 hours/week	0 (0.0%)	6 (100.0%)
>40 hours/week	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



ESTIMATED WORKLOAD
On average, how many hour/week did your wor...
Select from the list:

	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
ESTIMATED WORKLOAD								
On average, how many hour/week did your work with the course (including scheduled hours)?								
Select from the list:	5.0	1.1	21.9 %	4.0	4.5	5.0	5.0	7.0

Please comment on the course from this perspective:

The extent of the project is largely based on the supervisor. Our supervisor had a flexible view on the project and its time consumption when the scope turned out to be too large, making this work fine for us.

After gathering information and making decisions on what to do, our main work was studying algorithms and implementing them. Generally speaking, I would work for about 2 - 3 hours a day on this course excluding the time waiting for the codes to compile. My everyday work included writing codes, debugging, and adjusting codes according to new requirements we agreed on during meetings. If the times spent for group meetings are counted, I would say that the average workload for this course falls between 20-24 hours per week.

LEARNING EXPERIENCE

Now your task is to consider a number of statements on a scale between -3 and +3 where:

-3 = No, I strongly disagree with the statement

0 = I am neutral to the statement

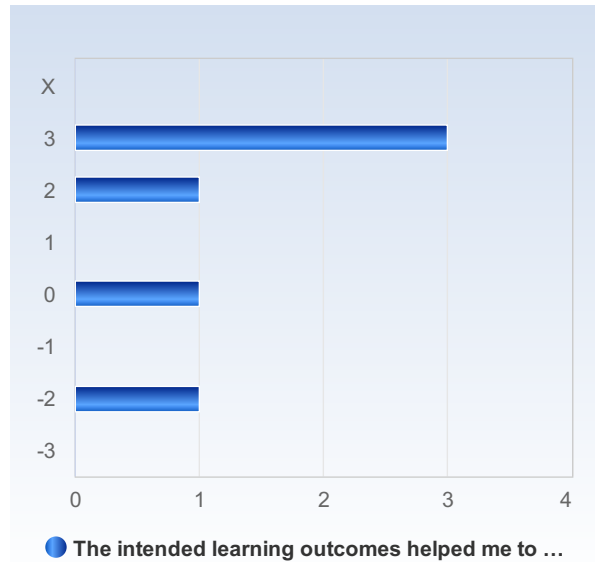
+3 = Yes, I strongly agree with the statement

X = I decline to take a position on the statement (please explain why in a comment)

If possible, please clarify your opinion with a sincere and considerate comment!

The intended learning outcomes helped me to understand what I was expected to achieve

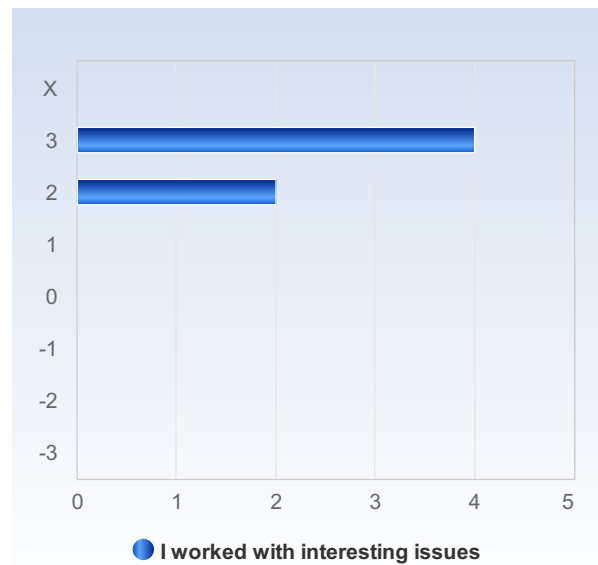
The intended learning outcomes helped me to understand what I was expected to achieve	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	1 (16.7%)	1 (16.7%)
-1	0 (0.0%)	1 (16.7%)
0	1 (16.7%)	2 (33.3%)
1	0 (0.0%)	2 (33.3%)
2	1 (16.7%)	3 (50.0%)
3	3 (50.0%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
	6	
Total	(100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The intended learning outcomes helped me to understand what I was expected to achieve	5.5	2.1	37.7 %	2.0	5.0	6.5	7.0	7.0

I worked with interesting issues

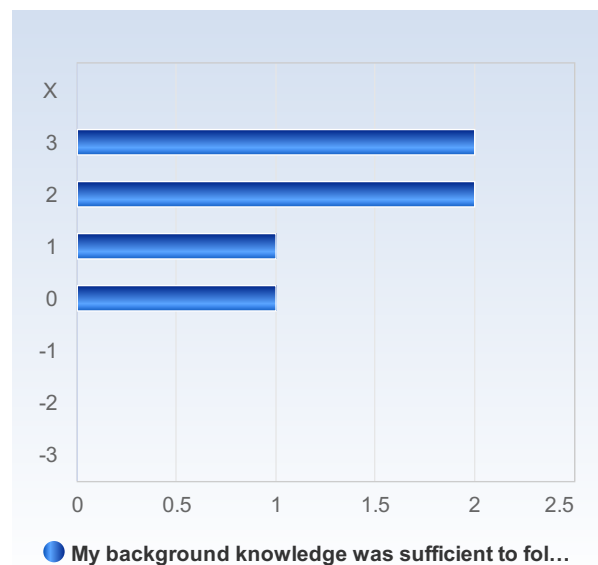
I worked with interesting issues	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	0 (0.0%)	0 (0.0%)
0	0 (0.0%)	0 (0.0%)
1	0 (0.0%)	0 (0.0%)
2	2 (33.3%)	2 (33.3%)
3	4 (66.7%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
I worked with interesting issues	6.7	0.5	7.7 %	6.0	6.5	7.0	7.0	7.0

My background knowledge was sufficient to follow the course

My background knowledge was sufficient to follow the course	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	0 (0.0%)	0 (0.0%)
0	1 (16.7%)	1 (16.7%)
1	1 (16.7%)	2 (33.3%)
2	2 (33.3%)	4 (66.7%)
3	2 (33.3%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
My background knowledge was sufficient to follow the course	5.8	1.2	20.0 %	4.0	5.5	6.0	6.5	7.0

The course was challenging in a stimulating way

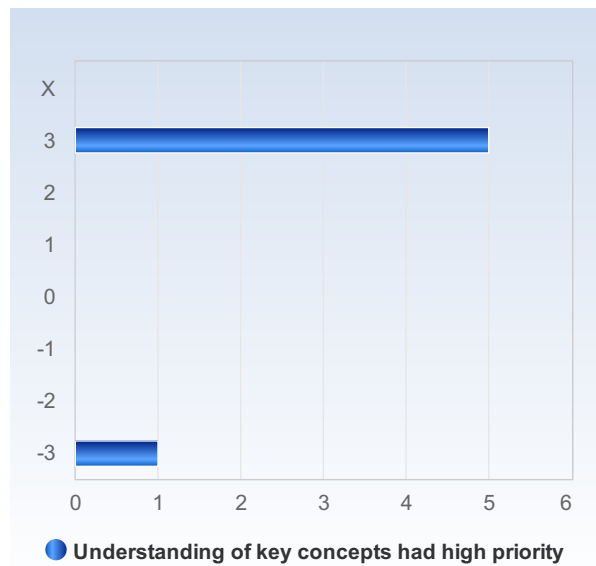
The course was challenging in a stimulating way	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	0 (0.0%)	0 (0.0%)
0	0 (0.0%)	0 (0.0%)
1	0 (0.0%)	0 (0.0%)
2	2 (33.3%)	2 (33.3%)
3	4 (66.7%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The course was challenging in a stimulating way	6.7	0.5	7.7 %	6.0	6.5	7.0	7.0	7.0

Understanding of key concepts had high priority

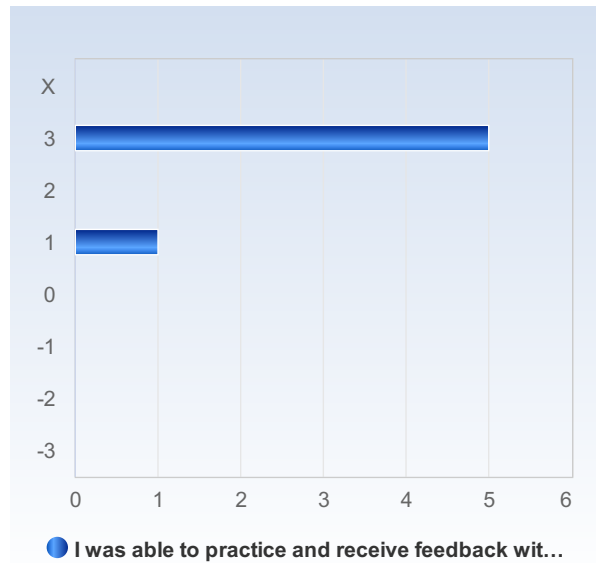
Understanding of key concepts had high priority	Number of responses	Cumulated responses
-3	1 (16.7%)	1 (16.7%)
-2	0 (0.0%)	1 (16.7%)
-1	0 (0.0%)	1 (16.7%)
0	0 (0.0%)	1 (16.7%)
1	0 (0.0%)	1 (16.7%)
2	0 (0.0%)	1 (16.7%)
3	5 (83.3%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
Understanding of key concepts had high priority	6.0	2.4	40.8 %	1.0	7.0	7.0	7.0	7.0

I was able to practice and receive feedback without being graded

I was able to practice and receive feedback without being graded	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	0 (0.0%)	0 (0.0%)
0	0 (0.0%)	0 (0.0%)
1	1 (16.7%)	1 (16.7%)
2	0 (0.0%)	1 (16.7%)
3	5 (83.3%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
I was able to practice and receive feedback without being graded	6.7	0.8	12.2 %	5.0	7.0	7.0	7.0	7.0

The course activities helped me to achieve the intended learning outcomes efficiently

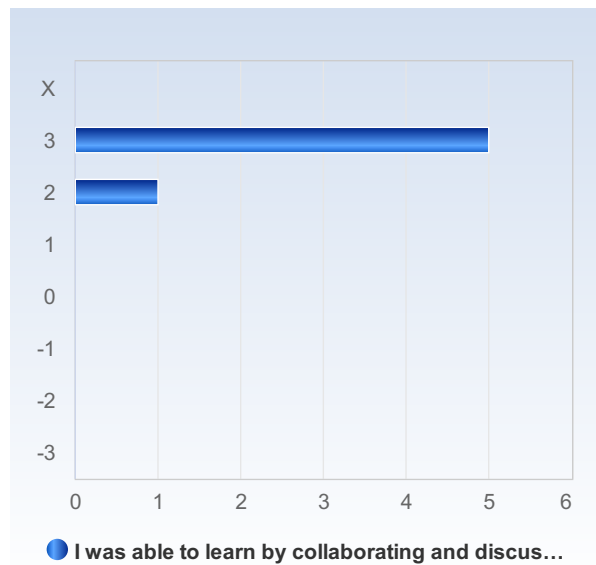
The course activities helped me to achieve the intended learning outcomes efficiently	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	2 (33.3%)	2 (33.3%)
0	0 (0.0%)	2 (33.3%)
1	0 (0.0%)	2 (33.3%)
2	0 (0.0%)	2 (33.3%)
3	4 (66.7%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The course activities helped me to achieve the intended learning outcomes efficiently	5.7	2.1	36.5 %	3.0	5.0	7.0	7.0	7.0

I was able to learn by collaborating and discussing with others

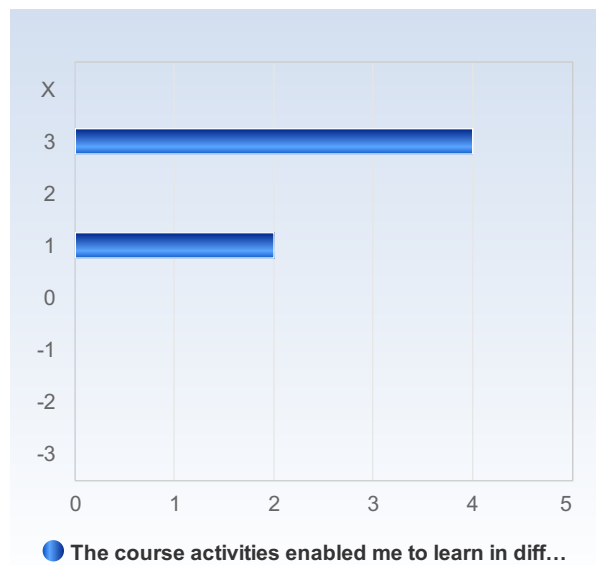
I was able to learn by collaborating and discussing with others	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	0 (0.0%)	0 (0.0%)
0	0 (0.0%)	0 (0.0%)
1	0 (0.0%)	0 (0.0%)
2	1 (16.7%)	1 (16.7%)
3	5 (83.3%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
I was able to learn by collaborating and discussing with others	6.8	0.4	6.0 %	6.0	7.0	7.0	7.0	7.0

The course activities enabled me to learn in different ways

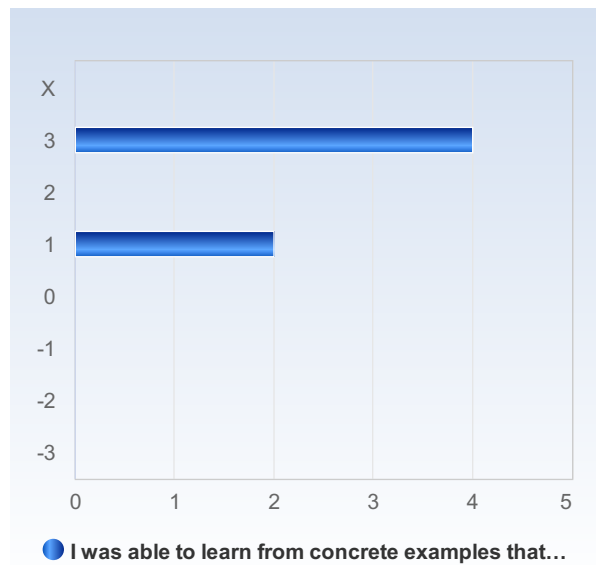
The course activities enabled me to learn in different ways	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	0 (0.0%)	0 (0.0%)
0	0 (0.0%)	0 (0.0%)
1	2 (33.3%)	2 (33.3%)
2	0 (0.0%)	2 (33.3%)
3	4 (66.7%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The course activities enabled me to learn in different ways	6.3	1.0	16.3 %	5.0	6.0	7.0	7.0	7.0

I was able to learn from concrete examples that I could relate to

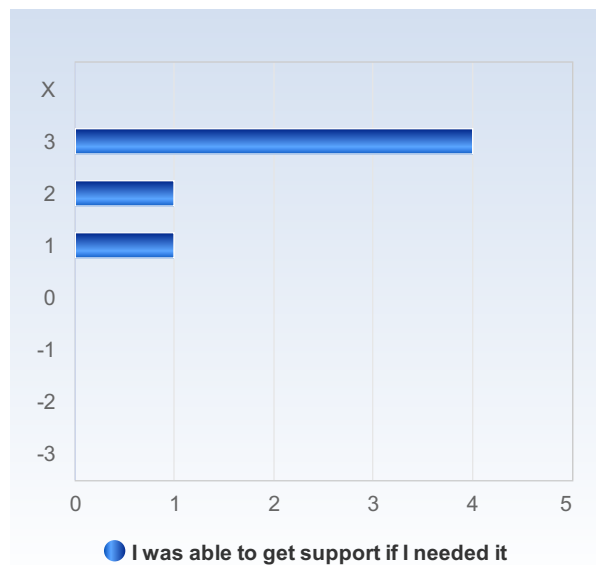
I was able to learn from concrete examples that I could relate to	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	0 (0.0%)	0 (0.0%)
0	0 (0.0%)	0 (0.0%)
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	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
I was able to learn from concrete examples that I could relate to	6.3	1.0	16.3 %	5.0	6.0	7.0	7.0	7.0

I was able to get support if I needed it

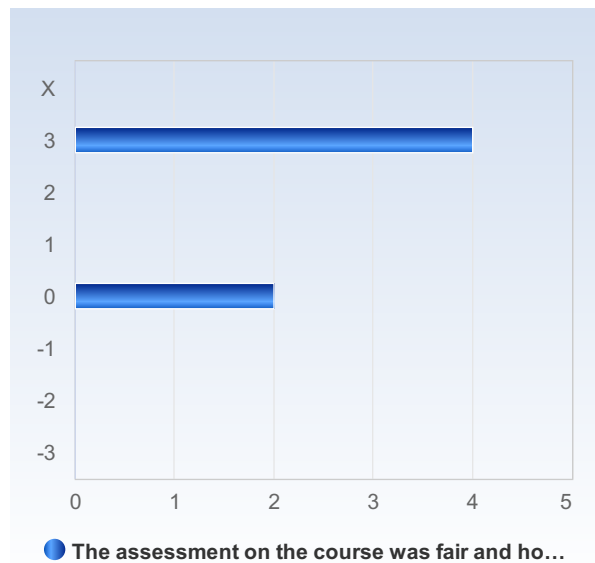
I was able to get support if I needed it	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	0 (0.0%)	0 (0.0%)
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Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
I was able to get support if I needed it	6.5	0.8	12.9 %	5.0	6.5	7.0	7.0	7.0

The assessment on the course was fair and honest

The assessment on the course was fair and honest	Number of responses	Cumulated responses
-3	0 (0.0%)	0 (0.0%)
-2	0 (0.0%)	0 (0.0%)
-1	0 (0.0%)	0 (0.0%)
0	2 (33.3%)	2 (33.3%)
1	0 (0.0%)	2 (33.3%)
2	0 (0.0%)	2 (33.3%)
3	4 (66.7%)	6 (100.0%)
X	0 (0.0%)	6 (100.0%)
Total	6 (100.0%)	6 (100.0%)



	Mean	Standard Deviation	Coefficient of Variation	Min	Lower Quartile	Median	Upper Quartile	Max
The assessment on the course was fair and honest	6.0	1.5	25.8 %	4.0	5.5	7.0	7.0	7.0

The assessment on the course was fair and honest -
Did not yet get asseement

GENERAL QUESTIONS

What was the best aspect of the course?

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What was the best aspect of the course?

Our project owner

To get to practice working in groups on complicated topics and delivering towards fixed goals.

The best aspect of the course was the experience of learning something new and trying to implement it as a group. Instead of listening to lectures as in most courses, we needed to do our own researches and decide on the proper methods to use. This process was challenging and fun. Teaming up with foreign students was also a fun experience for me.

Topics where interesting especially mine, where we actually in the end helped much bigger phd project a little.

What would you suggest to improve?

What would you suggest to improve?

The course schedule was not available through the KTH Calendar but sent out once on canvas, making some students double-book important time slots. This should not be too difficult to fix.

The supervisors of the projects had widely different background and ambitions with the projects, and the more novice ones might have benefited from assistance in creating the topic and the project such that its goals are reasonable.

A little more time before final presentation and report (maybe 1 week) as there is time in the period.

How did you perceive the collaboration among your group members and how would you improve the group collaboration to achieve a better project progress?

How did you perceive the collaboration among your group members and how would you improve the group collaboration to achieve a better project progress?

Distance work made collaboration harder. Having more time to plan the project (not starting during the exams week where we still have to study for our exams) would also make it easier to define and distribute the workload

I liked how the workload was distributed among group members. Each member got a fair amount of work. The collaboration went well.
Good

What advice would you like to give to future participants?

What advice would you like to give to future participants?

Let the planning take its time, a good planning is worth more than rushing the start of the project

For our project, we divided our group into two sub-groups to implement two different algorithms in parallel. We intended to do cross-comparison at the end. However, as the project approached an end, we found that it was hard to do a thorough cross-comparison because some aspects in the implementations are handled differently by the two sub-groups. Different inputs, outputs, and some other details within the calculations makes the final analysis hard for each other to use the other group's codes. I suggest that future participants pay more attention on synchronization between group works if they choose to work in sub-groups as we did.

Start early and it will be less stressfull in the end.

Is there anything else you would like to add?

Is there anything else you would like to add?

Starting before the exams with small formalities such as picking topic, dividing into groups was OK. Making us perform the majority of the planning during the weekend before the period starts was not, even though its a short period. The project plan could be presented on Thursday or Friday instead of Tuesday and that would have made all the difference.

Project courses like these are extremely important in a research based master's degree I strongly believe. I'd hope to see smaller versions of this course being included in other core courses too as they allow us students to apply the concepts we learn.