

# Report - DD2438 - 2023-09-22

Respondents: 1  
Answer Count: 1  
Answer Frequency: 100.00%

Please note that there is only one respondent to this form: the person that performs the course analysis.

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**Course analysis carried out by (name, e-mail):**

Petter Ögren, petter@kth.se

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**DESCRIPTION OF THE COURSE EVALUATION PROCESS**

**Describe the course evaluation process. Describe how all students have been given the possibility to give their opinions on the course. Describe how aspects regarding gender, and disabled students are investigated.**

The standard online course evaluation form was used (from the same webpage as this course analysis). The form enables separation based on gender etc.

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**DESCRIPTION OF MEETINGS WITH STUDENTS**

**Describe which meetings that has been arranged with students during the course and after its completion. (The outcomes of these meetings should be reported under 7, below.)**

We had meetings with the students every week of the course, to give feedback on their progress.

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**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 with pass/fail grades. It is examined through 4 project assignments that are being presented both orally and in a written report. For all assignments there is also a competition among the students to enable them to see benefits/drawbacks of different approaches.

For assignments 1-3 we use the freely available tool Unity3D.

The setup of the assignments are updated and improved each year.

The biggest change from 2022 to 2023 was that we created a client/server solution for Assignment 3, to handle the problems encountered in 2022 with students having problems running the code of other students in the competition. We have also moved all projects to git to improve accessibility for the students, as well as a means to track student activity, in case some groups have very uneven work loads where individuals try to get a pass without doing their fair share.

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**THE STUDENTS' 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?**

A 15-credit course running over 2 periods, which corresponds to a nominal workload of 20h/week. The median response in the course evaluation is 21-23h/week which is reasonable.

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**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?**

As of September 2023, the number of students that passed the course are 39, out of the 42 that started. This outcome is good.

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**STUDENTS' ANSWERS TO OPEN QUESTIONS**

**What does students say in response to the open questions?**

Some quotes from the course evaluation:

"If I had more time, I would give it more time as this course is very interesting."

"I liked that the burden of forming groups was not placed on the students. I also like how the well-established schedule and status reports encouraged consistent work. One physical meeting per week was a good amount."

"Fun problems, good balance between individual work and physical attendance. Good use of physical attendance which encouraged getting to know people and having discussions."

"I would also have liked a Unity / C# crash course in the beginning since I effectively needed to learn everything myself"

"I think you should poll people's ambition and prior skill before assigning groups."

"Do not procrastinate any assignments, Start ASAP"

"It is clear that you care about the course and want to make it better which is nice! "

"each assignment consist of sub assignments which can be solved individually, because of lack of time most people divided it up the work that way, which was sad because you lose half the experience."

"feels like you have to be lucky, you get partnered up with good people and have good discussions"

"reporting encouraged not being entirely honest about how much time we spent" We use a system where the students first plan how many hours to spend each week, and then report what they actually did, and what progress that brought. This is a good tool to reduce procrastination and prepare for "consulting like" projects. However, it seems some reporting might have been dishonest.

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**SUMMARY OF STUDENTS' OPINIONS**

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

Overall the students are happy with the course. They like the unusual format and the freedom of choosing their own approach to solving the problem.

The LEQ quantitative responses are in the range of (4.9-6.7) on a scale from 1 (bad) to 7 (good).

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**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.**

Overall the course works well.

Throughput is good. Feedback is positive. Workload is reasonable. The quality of the final reports are in many cases very high.

The continuous updates of the assignment seems to be working well. But there are still areas that can be improved upon for next year, in particular the time delays of the client server solution for Assignment 3.

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## **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 for these be? Are there significant difference in experience between:**

- students identifying as female and male?
- international and national students?
- students with or without disabilities?

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Overall, the learning environment is working very well.

All rated items had an average above 4.9 on a scale from 1 (worst) - 7 (best).

There were no students with disabilities (at least according to the course evaluation responses).

International students were slightly more positive than Swedish students in the LEQ responses.

Women were in general more positive than men in the LEQ responses.

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## **PRIORITIZED COURSE DEVELOPMENT**

**What aspects of the course should be developed primarily? How can these aspects be developed in short and long term?**

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We will continue to develop the assignments.

The time delay of the Client/Server solution needs to be investigated/handled.

Assignment 4 felt a bit short. Add one week?

Perhaps we can change so that the students choose one of the earlier and go deeper into it?

The score keeping of the Formation control task is too dependent on the initial 4 seconds performance (having quadratic cost).

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## **OTHER INFORMATION**

**Is there anything else you would like to add?**

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There was a slight decrease in number of students starting, from 50 to 43. This size is still reasonable for having two groups in parallel. If larger changes appear we will adapt the number of groups.

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