

Report - EH2720 - 2024-12-02

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.

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

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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.

I have given student ongoing opportunities for giving feedback to the course by actively inquiring how the course was going in the various lectures and activities. This term was the first time I gave the course from beginning to end as the course responsible, and I asked the students several times to volunteer for the Course Evaluation Board, but none came forward, despite attempts at explaining why it is beneficial for them to do so both individually and as a group. However, after the course was over I managed to organize and carry out a post-course analysis meeting with 3 students who were interested.

Apart from this, I asked individual students for feedback when appropriate, and on an ongoing basis. I encouraged students to discuss and give feedback in a facilitated fashion on the courseroom Canvas discussion board.

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.)

I met students regularly to discuss the course, asking for feedback both from groups and individuals in an ongoing manner, and not only reactively when an issue was brought to my attention. It was also baked into the final part of the course, as to evaluate the project environment (a part of the intended learning process) for their projects, which in the case of this course was the course environment in general. This allowed for very useful discussions in a safe and informal manner, which is important for the quality of student answers and discussions. I also carried out a post-course analysis meeting with 3 students who volunteered for it.

COURSE DESIGN

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

The course maintained its previous design of a combination of lectures and continuous examination via oral and written submissions, meaning the students submit each assignment 2 times, once for feedback and again for summative assessment. No written exams. Please see the HT2024 course memo for course design details. Since last time the grading has been more structured: This round required the students to use yellow highlighting for their changes after the first formative feedback after each submission so that each change would be assessed and no chance of missing. Additionally, the grading checklists for TA's were also extended to improve the grading consistency. This seems to have had a visible effect on the LEQ Survey results ("16. Assessment was fair and honest" went from 6 ==> 6,5).

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?

The students spent the intended 50% worktime (20h/week) in the course. More so this round compared to last year.

- 2023: Mean = 21 h, SD = 8.1 h
- 2024: Mean = 22 h, 8.2 h

However! The mode was 18-20h in 2024, and only 12-14h in 2023. Additionally, in 2024, 52% of respondents (7 for 18–20 hours, 2 for 15–17 hours, and 2 for 21–23 hours) were within 5 hours of the target workload, suggesting the course design successfully met expectations for most students. In 2023, fewer respondents were clustered around the target, with only about 30% reporting workloads close to 20 hours.

So the course has improved in terms of time spent by students, better clustering around the target time of 20h/week. It is hard to know exactly why, however.

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?

Average 3.5/5 in both 2024 and 2023.

Improvement in 2024 saw the grade distribution is slightly more balanced, with fewer extreme grades (particularly fewer "Ds" compared to 2023, and more "Cs").

A higher percentage of students achieved grades closer to the median, reducing variability slightly.

2023 saw a skew: A significant portion of students either excelled (A) or struggled (D & E), showing greater polarization in performance.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

Q: What was the best aspect of the course?

Students generally appreciated the detailed feedback provided throughout the course, with some noting that it helped them improve their work before grading: "The feedback!" and "The close communication with the teacher and the ability to receive feedback before the final grading." Many also highlighted the course structure, describing it as clear and organized, particularly in how assignments outlined the requirements for passing grades: "The way it was organized...specified exactly what you needed to do to achieve the passing grade." Workshops and practical elements, such as the scrum workshop and guest lectures, were frequently mentioned as engaging and informative: "The agile seminar /workshop was nice" and "The hands-on experience of doing the course as a project." A few students valued opportunities for self-reflection and skill-building, noting the focus on "improving your soft skills" and fostering "self-awareness as a leader."

Q: What would you suggest to improve?

While students generally appreciated the course content, some suggested dedicating more time to specific topics, such as budgeting and EVM, with one mentioning, "An extra lecture or seminar on EVM would have been appreciated." A small number of students felt that the instructions for certain activities, such as the peer-review seminar, could have been clearer: "The instructions for the peer-review seminar were unclear." Concerns about grading consistency were raised by some participants, noting variability depending on the evaluator: "The grading was done differently depending on who did the grading." However, this is not reflected in the course survey data, which show an improvement in fairness in comparison to last year, from a already high to an even higher level. See the section on OVERALL IMPRESSION below. There were also recommendations to incorporate more industry-relevant tools and scenarios, such as software commonly used in project management or predefined projects like, "building a car." Some felt that better alignment between lectures and guest lectures could further enhance the course. However, these points have varied over students in oral communication as well, but the teaching team see a potential for improvement in the mix of guest lectures here.

Q: What advice would you like to give to future participants?

Many students emphasized the importance of planning and time management, suggesting that starting early and staying organized would be beneficial: "Start working on each assignment early" and "Take extra time in the beginning to make a good plan." There were suggestions to engage deeply with the course material, with one participant noting, "The course is so much more valuable when you try to give your best at each step." Others encouraged using the course as an opportunity to build communication skills: "Take this as an opportunity to improve your project communication skills." Some also advised maintaining a consistent effort throughout the course and applying learned concepts to practical settings whenever possible, which is a consistent recommendation from old to new students year over year.

Q: Is there anything else you would like to add?

Students expressed general appreciation for the course and the instructor, with a few commenting positively on the teaching style: "Great lectures!" and "Väldigt omtänksam lärare." Some suggested that integrating tools, templates, or external exposure to industry practices could add further value: "Introducing students to programs/activities that companies use" and "Adding a new template of milestones using a program."... This is also a consistent point raised each year, and relates to a didactic balance made in the course regarding tool-teaching and principle-teaching (too much focus on proprietary tools has its downsides). Some commented here on the communication and soft skills content of the course to be very good, reflecting that "Learning about leadership and communication was particularly engaging."

SUMMARY OF STUDENTS' OPINIONS

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

See the previous and the next question for this. This question is covered throughout this analysis.

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.

The changes from last year seem to have had the desired effect, even though clear areas of improvement remain.

Both the LEQ from 2023 and 2024 had a similar response rate of 39% and 36% (which the KTH intranet says is "sufficient to draw conclusions on the student body"). I present the data and comment on each below.

LEQ Survey
| Q#. "Question text" | 2023 results | 2024 results | Difference |
Comment text

1. "I worked with interesting issues" 5,90 | 6,30 | 0,4

Reading the comments on this question between the course-rounds reveal an increase in "buy-in" on the premise that the core point of the course is to practice doing project work through planning and carrying out the course itself (getting a passing grade or more by planning /carrying out assignments in project teams of 2) in the form of a project, with the attending methods. In 2023 it was less clear, and some students were confused as to why "they had to do the course as a project and could not choose their own". The reason might be that in giving the course from start to finish, I consistently emphasized the point of the whole exercise for them.

4. The course was challenging in a stimulating way 6,10 | 6,20 | 0,1
A similar high score between years.

7. Intended learning outcomes helped me understand expectations 5,80 | 6,30 | 0,5
I extensively reiterated the constructive alignment between the ILOs and what the students did this course round.

10. I learned from concrete examples I could relate to 5,70 | 6,10 | 0,4
Small improvement, unclear reason. A contribution might have been the streamlining of presentation material and a strong focus on consistent structure for lectures.

11. Understanding of key concepts had high priority 5,90 | 6,40 | 0,5
Clear improvement. A contribution might again have been the streamlining of presentation material and a strong focus on consistent structure for lectures, were the key concepts were connected back to over and over.

12. Activities helped me achieve learning outcomes efficiently 5,70 | 6,50 | 0,8
Significant and clear improvement for 15 and 16 respectively. Here we might be seeing the effect of the changes made from last year, with the highlighting and more extensive checklists for grading by the TAs. However, feedback in meetings both informal and formal, during and after the students being told in the first lecture that they all "knew enough already to do everything the course requires of them, since the basic skills required are planning and common sense... the rest is taught in the course through many ways!". But it is hard to say if this caused this increase.

15. I practiced and received feedback without being graded 5,80 | 6,50 | 0,7

16. Assessment was fair and honest 6,00 | 6,50 | 0,5
Significant and clear improvement for 15 and 16 respectively. Here we might be seeing the effect of the changes made from last year, with the highlighting and more extensive checklists for grading by the TAs. However, feedback in meetings both informal and formal, during and after the course, have shown that a small number felt that there is still significant room for improvement. The issues are specific here, pertaining to ongoing coaching of specific points of interpretation. Primarily for the first and the final assignments.

17. Background knowledge was sufficient to follow the course 5,60 | 6,00 | 0,4

Small improvement. The students in the course come from all over KTH and vary a lot in what they know coming to the course. However, this is a basic course in PM, and there is no formal subject related prerequisites except for English B. This improvement might relate to the students being told in the first lecture that they all "knew enough already to do everything the course requires of them, since the basic skills required are planning and common sense... the rest is taught in the course through many ways!". But it is hard to say if this caused this increase.

19. Activities enabled learning in different ways 5,80 | 6,60 | 0,8

Significant increase. Since the fundamental learning performances did not change, it must have been about how these were presented to the students. Some redesign of the assignment specifications were made, but the larger change was an ongoing in-person emphasis on the connection between what the students did (not the teacher) and how those things enabled them to learn and what high and low performance meant in the context of each performance.

21. I learned by collaborating and discussing with others 5,90 | 6,50 | 0,6

22. I was able to get support if I needed it 6,00 | 6,70 | 0,7
A strong and significant increase for 21 & 22. I did my best to be present for the students, staying in breaks and after lectures to listen to them (rather than to continue the lecture on a 1on1-basis). I met them individually in my office when requested, keeping an open-door policy. The students clearly felt more supported in 2024 than in 2023 (Q22) and they experienced a stronger collaborative atmosphere (Q21) as well. This is encouraging, since this (Q21) is the beating heart of the course, and I bang senselessly on this drum for the students, that their performance in the course stands or falls on the quality of their groups collaborative capacity. It is impossible to establish causally certainty, but I hope that this is paying off here.

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?
-

None identified from the data, even though experience tells me that groups with a big internal difference in cultural background can sometimes be difficult. But it is hard to draw any clear conclusions on this. The course is taken by many master students around KTH, so the backgrounds vary significantly in relation to the concepts being taught. About students with disability, I made clear that if needs for a tailored experience in the course can clearly be shown, I am more than happy to accommodate such need, and that it is in the power of the examiner to choose method of examination on a person-by-person basis (if this is required to keep examination of the ILOs fair). I got some comments this course round from FUNKA-students who appreciated this, and discussions they had privately with me on how to accommodate them to fulfill the course learning goals.

PRIORITIZED COURSE DEVELOPMENT

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

- Set up the production and coaching of grading-as-a-process in a more structured way, to further improve the fairness and consistency of both formative and summative grading. This includes not skipping meetings with TA's and to focus more on discussing/coaching them on their internal process when grading (i.e. grading checklists and tutorials for how to grade are not enough!).

- Review the guest lectures, Kniberg was beloved as always, but especially the first guest lecture was pointed out by students both during the course as well as in the post-course meeting to not be very rewarding.

- The mandatory attendance for guest lectures. The EECS CoC and internal policy for ensuring fair examination of attendance was reviewed, and in communication with till Markus Hidell who is GA for EECS, I will move from attendance lists to individual submissions of very short reflection texts (3-5 sentences) in the final 5-8 minutes of each mandatory lecture. This format was trialed in the first lecture this year and it was roundly appreciated by nearly all students, in both individual communication and in meetings. The format will be a canvas assignment open only in the end of the lecture, and this format is equally "legally safe" as signed attendance sheets. Both methods (and any other I have workshopped!) are weak to any student determined to cheat. And the learning activities should not be designed for this rare kind of student before all others. The benefit of this design is that it is only open for a short amount of time, and that a teacher goes through all short reflections to see if any "made up" answers exists. This takes very little time to do and it is very easy to see, since the slides are not available before the lecture, only after when the assignment is closed. Of course, if a student really wants to cheat and manages to IM-chat with a friend who is attending and comfortable with summarizing the lecture as it is going on, this also goes out the window. But the same applies for attendance lists being signed several times by one student, which we all know happens.

- The excel templates for the Milestone chart caused undue frustration due to old UX. Will be redesigned.

- students report that "IEEE-template does not work with .docx", this needs to be checked and updated!

OTHER INFORMATION

Is there anything else you would like to add?

No.
