



Report - DD2480 - 2021-03-23

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.

We have primarily used the learning evaluation questionnaire (LEQ) to evaluate the course. We have also discussed some aspects of the course during lab support sessions or briefly at the end of the grading sessions, time permitting, and got additional feedback that way. Gender issues were investigated through the LEQ, which keeps track of the gender in course responses. There seems to be a clear trend that female students evaluate the course better than male students, although the difference is not large. We do not know what causes this. We also got feedback in the LEQ regarding dyslexic students, who appreciate the combination of many different types of material (videos, lectures, slides, text) that helps them to adapt.

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.)

There were no dedicated meetings with students to discuss the ongoing course, but we had discussed the course contents during the lab support sessions. There may be self-selection bias here, as not all groups took advantage of the opportunity. We have arranged a post-course meeting on 2021-04-15; see below.

COURSE DESIGN

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

The course has eight lectures that give the key knowledge needed to complete it. The practical learning happens in the labs, where students complete four mini-projects and present them (as a demonstration). We have two four-hour lab sessions for the first mini-project and three four-hour lab sessions for the remaining mini-projects, to ensure that the students get enough support and feedback. The last four-hour slot for each project is reserved for the demonstrations. Students can improve their submission after the presentation, and only the final submission is graded.

The main changes in the course for 2021 were:

- * The course has a strong active learning component, partially in response to remote teaching. Each lecture is preceded by self-study materials (videos and text), which are first discussed interactively and then deepened by another short lecture. A module of 45 + 15 + 45 minutes is broken up into two or three such parts consisting of discussions and short lectures, with breaks in between.
 - * We have extended the module on software packaging to help students get third-party software to work on their computers.
 - * We have strengthened the part on the "Essence" kernel (Software Engineering Method and Theory) to give the students guidance in their way of working, and provide a reflective component in the course. We plan to expand this slightly for 2022.
 - * We have added a part on design patterns.
 - * We have removed the part on model-based testing and shortened the part on requirements to make room for the new components.
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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?

We have only got a response rate of 20 % for the LEQ. The median effort is 20 hours per week, which was the desired course load. However, there are students who indicated an effort of 30 hours per week. Perhaps this was due to remote teaching or the ambition of the groups to achieve an "A" grade, which was typically possible and predictable as the grading criteria for "A" are very clear and can be achieved with higher effort and more learning.

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?

We had a paradoxical situation:
There were a few groups who struggled a lot compared to earlier years. They required much extra support. We attribute this to the fact that the student groups were never able to meet in one place.
At the same time, more students than before achieved an "A" grade. We had slightly shifted the final submission deadlines, which is perhaps the reason for this, but the "A" grade then probably also required a bit more time due to the course submissions running effectively for several days longer than in 2020.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

The experience depends heavily on the group composition. We used random groups to avoid giving an advantage to students who are well-connected, and to create diverse teams.
In a few cases, the random group assignments did not work well (as in past years), but overall, the feedback for this is positive.

SUMMARY OF STUDENTS' OPINIONS

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

We had a meeting with two student representatives, Kitty Thai and Daniel Gruener, 2021-04-15.

The students observed the following points:

- * Course organization was good overall.
- * The advance videos and recorded lectures worked well.
- * The Essence of software engineering material was helpful; a little bit of support regarding how existing methods fit in will help fill in some gaps that Essence (deliberately) leaves open.
- * A bit more background on onboarding, group communication, management, and community building would be helpful. We will try to include this without overlapping too much with course DD1393, which covers this more extensively. This is in line with the planning adjustments for 2022.
- * If we have funding for a teaching assistant to support this, we will implement "Kattis" support for Assignment 1, so students can self-test their solution. This will make the beginning of the course smoother and show the value of systematic testing.

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 definitely helped a lot: Active learning avoids two-hour-long Zoom lectures, and the new content also fits in well.

We will make further improvements for next year (see above). Furthermore, the list of recommended projects has to be updated annually, which will take some time during course preparation.



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?

See above; we got positive feedback from female students and one dyslexic student, but there are not enough submitted questionnaires to find out why this is the case.

PRIORITIZED COURSE DEVELOPMENT

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

The main issue this year was that some groups had difficulties organizing their work and communicating.

We need to add a part on communication and team building to make (remote) group work more effective next year.

Minor changes in other parts of the course can adapt to this.
