Report - DM1135 - 2024-08-19

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):

Andre Holzapfel, holzap@kth.se

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.

Course evaluation is based on the evaluation form sent out through the KTH platform, the feedback obtained during the evaluation meeting, feedback from the Proint course, feedback from student representatives (with whom a dedicated meeting has been conducted), and a Canvas survey conducted during the course. Students were repeatedly encouraged to provide feedback in all channels, and gender aspects and disabled student-related aspects were considered in the survey as much as possible, given the population size.

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.)

The course had lectures, tutorials, and labs. Meetings were conducted online in the context of the former two, and on-site meetings were strongly encouraged in the latter. For evaluation, the course responsible closely connected with the two student representatives.

COURSE DESIGN

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

The course contains 10 lectures, 5 tutorials, and 5 labs. Both tutorials and lectures were online, whereas the labs were hybrid, with on-campus participation and discussion encouraged. The labs contribute the practical examination element (60% of the total course grade), and the final exam focuses on theory prepared in lectures and tutorials (40% of the overall grade). The exam was conducted as an individual oral online exam, in which previously conducted homeworks were examined individually.

There series of changes has been conducted compared to the previous course round: 1) the provided lecture videos were further improved concerning the readability of

hand-written notes (Slides with hand writing prepared to avoid glitches while writing with tablet). 2) Most lectures now have accompanying Python examples, which are meant to bridge between lectures and labs. 3) Most lectures now have application examples, most of them as video links provided on Canvas. 4) Lab tasks were carefully re-phrased to improve comprehensibility.

THE STUDENTS' WORKLOAD

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

The workload seems similar to the last course round (about 12 hrs per week in average), but data are sparse.

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?

The grade distribution is A:40, B: 19, C:11, D:2, E:1, F:1. Eight students were graded Fx in the exam. Overall results are slightly better than last year.

STUDENTS'ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

As only ten students have answered, not much can be gathered from the survey. Only lectures are - once more - mentioned as too difficult and hard to relate to other course aspects, but it may be that with only four students mentioning lectures in future improvements that these comments do not capture the majority opinion. Also labs are mentioned as difficult.

SUMMARY OF STUDENTS' OPINIONS

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

Most important sources of information: 1) Canvas survey: displays that a slight majority of the course participants prefer the online format to on-site sessions. 2) Student representatives confirmed that python and application examples were helpful. Low attendance in lectures was explained with high workload due to the labs, and that the connections between labs and lectures was still hard to see despite the python examples.

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 course was generally successful, and a well connected structure was again confirmed. For a large group the course seems to work, because I clearly see an improvement in how students explain results in the oral exam. The improved hand writing does again not have the desired effect, which makes me wonder if there is a general problem with hand writing especially of maths notation. In general, I observe a problem that some elements of the course (especially complex numbers) are not covered in any basic maths course, which is a huge burden for the students to get into the material.

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?

No differences between groups can be determined.

PRIORITIZED COURSE DEVELOPMENT
What aspects of the course should be developed primaily? How can these aspects be developed in short and long term?

After the large changes last year, in 2024 the material will only be further consolidated. Lecture recordings will be updated for the first lectures. Potentially, a weekly quiz related to the ÖVN will be added, and some of the lab questions will be made optional to decrease workload.

OTHER INFORMATION Is there anything else you would like to add?