Report - MH2048 - 2021-07-07

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):

Manon Bonvalet, bonvalet@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.

The course has been evaluated with the LEQ questionary.
Only male students answered.
Only 5 students answered in total (/17).
One disabled student participated in the course but did not answer.

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.)

All the meetings with the students took place digitally this year due to the world pandemic.
The lectures were given to the full class. Students usually never turned on their camera in these occasions.
During the lectures/tutorials there was also a lot of exercises (one or two per session). Breakout rooms were used for this purpose and the students were asked to turn on their camera and share their screen to the group to solve together the different exercises.
The meetings with the project supervisors were also taking place online.

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 based on a 3 credit part (exam and "NÄR") and a 6 credit group project and seminar.
During the first part of the course we have lectures and tutorials incorporating practical design exercises. The content from the lectures is connected to four different computer labs and home assignments giving the students the possibility to work on their own on the course content.

Compared to 2020, the course was fully digitalized.
Compared to the previous year, one home assignement was modified. Atomistic calculations/simulations were ran by the students and not only the results analysed as it was the case previously.

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 entered by the students is lower than the expected average level.
The value are in good agreement for the first part of the course (80h workload in total). But it should have been higher for the second part of the course (project, supposedly 160h workload in total).
Only three students answered this question so it might not be representative.
Nevertheless, it could also be related to the fact that the project part is rather long (10 weeks). Based on this number of weeks, the workload is then almost in agreement with the expected 160h workload.

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?

This year the exam had a different format compared to the previous years. Indeed, it is the first time that the exam is divided into a home exam with limited time and an oral evaluation.

In general, the students succeeded well on the course. Most of the time, the oral part showed that the ILO were mastered by the students. Regarding the written home exam, a major weakness is the fact that the students answered very generically and did not really relate their answers to the specific materials design problem of interest.

STUDENTS´ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

In general, the students seem to enjoy a lot the project part.

One student thought that the videos were bad.

SUMMARY OF STUDENTS' OPINIONS

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

The project part that was appreciated has also been a bit complicated to handle for some students regarding the workload distribution.
Some home assignments have also been reported as difficult to solve or not concrete enough.

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 oral part of the exam is very beneficial to properly catch the student knowledge about general concepts in this course.

The fact that the computer labs and exercises/tutorials were online was not the best. It is very important in the coming years even for a partly digitalized course to keep meeting the students and to let them the time to reflect on exercises in groups and interact with the teachers.

The fact that one computer lab was organised for DFT calculations was very positive. The previous years the students were not running their own simulations but only analysing the data. The DFT teacher highlighted the fact that it helped a lot the students to understand these simulations and also that it helped to conduct properly the project compared to the previous years.

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?

The students who answered the questionnaire were mainly very positive to all the aspects.

One student thought that the examples given in the course could be more concrete.
Only one negative answer was given. This was regarding practising and receiving feedback without being graded.

Only male students answered the questionnaire. No details were given regarding the citizenship.

PRIORITIZED COURSE DEVELOPMENT

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

It could be good to follow the same concrete material example for all the home assignments. That way, the students could reflect on the limitations, advantages and drawbacks of the different methods and tools they learn about during this course.
More time is needed to go back to the solution of the home assignments.

Even if the system design charts seem well understood by the students, it would be nice to spend a bit more time on the translator tools.
As stated previously, sometimes the system design chart suggested by the student are very generic, i.e. they include all possible tools which might mean that they did not properly identify the needs of one tool or another. Maybe exercises asking to rank with a priority order the tools could help them to reflect more on the usefulness of the different tools and push them to work more on that.