

Course analysis CM2020

M Colarieti Tosti, Stockholm, 6 December 2024

Introduction

The course activities follow the structure that has been used for a while now, namely 5 reading assignments followed by workshops during which students are both able to show and work towards achievement of the course ILO:s, 3 laboratory exercises and a mini project. The examination is composed, for each single students, of questions and problems that focus on the ILO:s not achieved by the student in the above mentioned course activities.

In previous occasions, with this structure, more than 90% of the students passed the exam at the first attempt and the grade distribution was more or less normal (the low number of students does not really allow to draw this conclusion, but what I mean is that all of the grades were represented). This year, the result is somewhat worse, with only 3 out of 5 students passing the exam at the first given occasion, and with the highest grade being C. I will comment on this after reporting about the students' impression in the following part.

The course, this year, was taught in parallel with SH2134, with labs and workshops shared. This led also to the fact that students in CM2020 had access to lectures (mostly video-recorded) by the teacher of SH2314.

Student feedback

An LEQ-questionnaire was sent to the students but only one person submitted their answers. I therefore asked students to share their thoughts with me via mail or in person. Two students replied (both of them had passed the course).

I try to summarise here their thoughts on the different activities:

Workshops:

on the plus side:

- forced us to keep up the work
- working out the problems together in groups was nice.
- provided an opportunity to review and clarify any doubts on the newly covered material

on the minus side:

- have more time for discussing the answers, by cutting out the part in which students work out solutions to the simpler questions/problems in small groups.

Laboratory exercises:

on the plus side

- labs were very interesting
- hands-on application of the theory

on the minus side

- the information on what needed to be done could have been more clear for the first and third lab

mini-project

on the plus side

- The highlight of the course was undoubtedly the project. It allowed us to dive deeper into the aspect of the course we found most interesting, with the added benefit of working closely with high-quality equipment and having the professor available for guidance.
- The mini project was fun and I liked that we could choose what to do and how much we learned from it.

No negative comments on the mini project.

Shared activities with SH2314:

- Students liked the fact that there were lectures available and that they were recorded
- One student explicitly mentioned that they were happy with the possibility to interact with students from another programme (Engineering Physics)
- One students mentioned the fact that grading of the workshops problem was different in the two courses as a negative aspect.

My impressions

I share one of the students opinion that a bit more time for the discussion of solutions to the problems would be beneficial. When the workshops were given only for CM2020-students, they had mostly a character of a teaching activity and more time was reserved to the final discussion. Since the workshops give bonus points for SH2134-students, this year, there have been a tendency of prolonging the time dedicated to solving the problems instead. This might have had a negative effect on the "learning aspect" of the workshops by putting more weight on the "examining aspect".

I also agree to the fact that the laboratory exercises can be improved and made more clear. On the other hand, the goal I have with the labs is not only to demonstrate the theory but also to foster experimental work practice. and teach how to write good technical reports. Unfortunately, I have not yet found a way of doing this in an efficient manner.

Conclusions

Based on the students' feedback and my impressions I will try to improve the course delivery in the following way:

- Workshops:
 1. Find a way to combine the positive aspect of the exchange among students from different programmes with the different ways in which the workshops are used in the two courses. This needs coordination with the teacher of SH2134 but a way for increasing the discussion

time should be possible. One possibility is to offer a “wrap-up session” some time (1-3 days) after each workshops.

2. Make clearer to the students why the grading system is different between the two courses for this activity.

- Laboratory exercises: Improve the lab-descriptions for the first and third lab.