

# Report - SD2231 - 2021-02-02

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): Mikael Nybacka, mnybacka@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 evaluation of the course was done through the use of the learning outcome questionnaire LEQ that was sent out to all students in the course, where 9 students responded which is 31% of the students in the course. No information on gender disabilities could be included in the data due to low participation.

## 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.)

Feedback on the course was given during the course through the supervision meetings of the lab assignments.

#### COURSE DESIGN

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

The aim with the course is to give the students both theoretical and practical experience for different applications of vehicle dynamic control in both longitudinal, lateral and vertical direction. At the end of the course the students shall have theoretical and practical experience around three areas of vehicle dynamics control. These three areas are divided into three larger laboratory assignments where the students are writing a report on each and is graded by the teachers.

The changes for this year is new data for Laboratory 2 and a redesign of Laboratory no 1 on longitudinal control, this to give a better learning experience.

#### 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 respondents given workload is varying quite a lot where some students have been spending much more time on the assignments and the course than others. Some students felt that some laboratory assignments took longer than other assignments. One explanation of the spread is that some students have more control theory experience which will make the course a bit easier to complete whereas other have less experience and hence it will take more time to complete the lab assignments.

#### 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?

There is a spread in the grades on this course that is a bit bigger than the year before. Further analysis will be done on this aspect but from what could be seen in the respondents answers and experience from teachers there seem to be no general issue with the course.

#### STUDENTS'ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

The students like the applied project topics as well as the large focus on Matlab / Simulink. Some students felt that they needed to spend a lot of time in tuning the controllers and suggested to rework the lab assignments to support in the tuning aspects as well as focus on some of controllers rather than building several controllers.

#### SUMMARY OF STUDENTS' OPINIONS

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

There is a need to go through the lab assignments for next year in order to balance the workload of all three assignments as well as refocus some of the tasks on a few variants of controllers.

#### 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.

There was a big spread in the reported workload which need to be analysed further to understand how it should be redesigned.



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?
Too few respondents in order to see any difference in terms of gender or disabilities.

PRIORITIZED COURSE DEVELOPMENT What aspects of the course should be developed primaily? How can these aspects be developed in short and long term? There was a big spread in the reported workload which need to be analysed further to understand how it should be redesigned.