# Report - EL2820 - 2022-12-05

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.

After the course had finished, i.e., the grades of all assessments were posted, the students were sent a link to a course survey, opened between 2022-11-16 and 2022-11-29.

Unfortunately there was no course committee, since no student volunteered for it.

Nevertheless, the teacher had a meeting with a small sample of the students of the course during a seminar of the EL2220 course "The sustainable systems and control engineer".

#### COURSE DESIGN

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

The course consists of lectures, exercise sessions and computer exercises. In addition, regarding assessments, it has 3 labs and 1 final written exam. The first lab consists of 2 homework assignments; the 2nd lab is performed in computer labs, and for the last lab the students are given data from a real process and they should build a model of such a system.

Compared to the last course round, now all lectures and exercise sessions were done in class. Also, 2 quizzes that were previously compulsory were now voluntary and contributed with bonus points to the final exam.

### 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?

According to the students who answered the survey, the maximum workload was about 17 hours per week, i.e., about 140 hours in total, which is lower than a workload of 200 hours (to be expected from a 7.5 hp course).

#### 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 pass rate of the exam (including bonus points from the quizzes) was 75%, which is standard for this course.

#### SUMMARY OF STUDENTS' OPINIONS

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

The students mentioned that they learn many topics in the course. However, several of them struggle with their prerequisites, because many of them have not seen (or remember) concepts from physics, math or control that are needed for the course.

#### **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.

According to the teachers, this course round was successful, in spite of having some students struggle due to their different backgrounds (some do not know Python, or very little Matlab; others do not remember physics, or have not seen control theory, etc.).

#### 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?

Unfortunately only 5 students answered the survey, so the system does not provide separate information for the different groups.

## PRIORITIZED COURSE DEVELOPMENT

What aspects of the course should be developed primaily? How can these aspects be developed in short and long term? The course lacks a good textbook, so the main effort should be put on the development of more lecture notes. Also, next year we will try to have the students use a new physical process in the final lab, instead of relying on pre-recorded data.