

# Report - CM2015 - 2023-06-27

Respondents: 1  
Answer Count: 1  
Answer Frequency: 100.00%

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Please note that there is only one respondent to this form: the person that performs the course analysis.

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**Course analysis carried out by (name, e-mail):**

Martin Jacobsson, marjacob@kth.se

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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.**

We used the LEQ12 standard online survey for obtaining anonymous comments from students. The course evaluation survey was answered by 12% (3 students).

This report is based on that material together with subjective observations by the teachers, and informal discussions with active students.

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**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.)**

No formal meeting has been conducted.

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**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 15 ECTS, had 25 active students this year, and ran over the entire autumn semester at 50% work load.

The course is based on developing practical skills in the field of study as well as executing engineering projects. The course was divided in two distinct parts corresponding roughly to the two autumn periods:

- 1) The first period consisted of 7 labs of varying kinds and sizes. The aim was to train students in the necessary skills as a preparation for the later projects.
- 2) The second period consisted of a project assignments to be carried out by the students in groups of about 4-5 students.

A handful lectures were also given to introduce some concepts. Otherwise, the course depended heavily on self-study material and hands on assignments. Time in the lab rooms were scheduled for students to work and have access to assistance.

The examination for the labs varied. Sometimes handing in a written report, sometimes oral discussions, and sometimes demonstrations of the results. Most labs were done in pairs. The examination of the project were both a written report and oral poster presentation with a demonstration. Continuous examination through tracking the progress was also done.

Changes this year was:

- Updated the intended learning objectives to better reflect the course content and focus on a smaller subset of objectives.
  - Result reporting was divided in a laboratory part (LAB1) and a project part (PRO2).
  - We replaced the breathing sensor with a PPG-sensor to better connect with the remaining labs.
  - Only one larger project during the second period.
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**THE STUDENTS' WORKLOAD**

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

The self-reported workload was ~14 hours/week (only 3 students), which is less than the aim of 20 hours/week. The students also report a varying work load over the course.

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**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?**

Almost all students managed to pass the course. Some students still have to complete a few of the labs.

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**STUDENTS' ANSWERS TO OPEN QUESTIONS**

**What does students say in response to the open questions?**

Only feedback from three students. The possibility to use knowledge to build or do something was appreciated by the students. The main room for improvement seems to be in the way groups are formed for the projects and the way we grade the project work.

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**SUMMARY OF STUDENTS' OPINIONS**

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

LEQ 17 (My background knowledge was sufficient to follow the course) had the lowest score (4.7), which is still a high score. It is not strange that some students have gaps in the background knowledge. It is even expected and the course aims to fill the gaps of the students. Some parts of the course may be known to a student, while some other parts are completely new.

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**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.**

It is now the second time that we give this course. A lot of the issues that we had last year with creating the material was gone. We have managed to address the identified issues and feedback that we received from the first course offering. Our overall impression is that we have successfully addressed all main issues and that the need for a major overhaul of the course is not necessary.

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**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?

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The feedback from the survey is too small to make any quantitative comparisons wrt gender, nationality, or disability. However, we have no indications that any of this has been an issue. The course had a fair mix between male/female as well as Swedish/international students.

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**PRIORITIZED COURSE DEVELOPMENT**

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

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Some more structure to the last lab.

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