

Report - CM2015 - 2022-04-19

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.

We used the LEQ12 standard online survey for obtaining anonymous comments from students. The course evaluation survey was answered by 25%.

This report is based on that material together with subjective observations by the teachers, informal discussions with active students, and with a course evaluation meeting with the other teachers and a student representative.

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.)

One meeting was organized with all involved teachers and one student representative. The survey results and other student feedback was collected, analyzed, and discussed. Proposed course development plans were discussed. The meeting lasted for about 2 hours.

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 36 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 2 short project assignments to be carried out by the students in groups of about 3-5 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 projects were both a written report and oral presentation (traditional classroom-style lecture and poster presentation).

Continuous examination through tracking the progress was also done.

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 work load varied over time. On average the students reported just less than 20 h/week, which is quite close to the expected work load.

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. Unfortunately, they do not receive any credits at all until they are finished.

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

The practical aspects and hands on work were appreciated by most students. This course is perceived as very different from other courses (in a positive sense). Also the topics of the course seems relevant.

Problems include organization of the course. Some feedback includes: Have a more organized course. A lack of communication was clearly felt between the involved teachers. Faster feedback/grading and more teacher involvement.

Prepare the projects better. Define the scope of the projects in a better way. A better connection between projects and labs.

SUMMARY OF STUDENTS' OPINIONS

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

LEQ 11 (Understanding of key concepts had high priority) scored the lowest, but still a high score (4.6). No clear reason is provided by the survey. However, the course focuses on practical aspects and the application of concepts, so maybe it is only a consequence of the course's purpose and design.

We asked which lab to remove if we remove one lab. No clear winner was given, but the digital filter lab and the measurement lab were proposed by some.

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 was the first time the course was offered, so many parts were not ready by the start of the course. Besides, it is difficult to predict before hand what level works for the student group. As such, some assignment descriptions were announced very late and had to be updated when many students ran into the same issues. This also took time from the other teacher activities during the course, such as providing feedback to uploaded assignments.

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?

There are no indications that there should be any issues wrt (inter)national students and disabilities. The course had a fair mix between male /female as well as Swedish/international students.

The LEQ question scores vary among the sexes. Female students score LEQ 7 (The intended learning outcomes helped me to understand what I was expected to achieve) the lowest, while male student score LEQ 16 (The assessment on the course was fair and honest) and LEQ 22 (I was able to get support if I needed it), the lowest. Unclear why. LEQ 16 received a lower score due to delays in feedback/grading.

PRIORITIZED COURSE DEVELOPMENT

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

The first project, which was practical in nature, spans too short time and needs to be expanded (or removed). After multiple discussions with students and teachers, the decision is simply to remove the second project from the course and extend the first project too allow for a serious amount project time. The time is not enough to run two projects.

The last lab (measure the medical device's accuracy) will also be expanded.

Divide the course into two parts, so that credits can be reported on parts of the course.

Update the intended learning objectives to better reflect the course content and focus on a smaller subset of objectives. The removed objectives will be covered by subsequent project courses.

Stream-line some of the labs. I.e., the PCB design and soldering exercises will be based on an PPG sensor that is used in the other labs.
