



# Report - ML2300 - 2021-11-25

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):**

Seyoum E. Birkie (seyoume@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.**

Two opportunities were provided to students for the purpose of the course evaluation. The first one was done during course conclusion when students could anonymously provide opinions using Mentimeter in a classroom environment. The second was done using KTH LEQ platform (after final exam has been conducted) in which they were sent automatically generated email to fill out the anonymous course evaluation. These two, together with reflections made throughout the course, are the bases for this course analysis.

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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.)**

- Continuous improvement opportunities for quick fixes as needed including through email exchanges.
- Meeting at course conclusion to discuss collected opinions.
- End-of period meeting called by master program responsible to hold discussion among course examiners, course responsible and student representatives.

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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 has 6 learning objectives. In order to fulfil the objectives, a mix of teaching formats (lectures, seminars, group discussion, industry guest lectures and study visit) have been employed.

This year the students were also provided with a number of recorded shorter video lectures summarising many of the class lectures, to be used either as preview before lectures, or as summaries while preparing for the final exam.

Class sessions have been a mix of physical presence sessions (e.g. seminars study visit) and online (e.g. lectures) with flexibility in effort to make sessions available while reducing risk of covid-19 infection. Three assessment approaches have been used (INL, ÖVN and TEN).

One of the differences in this round of the course include having continuous non-evaluated quiz questions for different modules. Combining individual as well as group reflection in ÖVN has been applied. Key difference in the final exam (TEN) this year has been that it was conducted as a combination of short online exam in canvas plus a long written-essay format home take exam.

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**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 course load was estimated to be up to 25 hours per week. The students who have responded the LEQ (<50% of total) have reported to have spent an average of 18 hours or less per week. Compared to previous years, this is a much lower workload. Possible reasons include the alignment of previous study profiles of students with the course content, and productive group dynamics for project tasks. However, it is to be noted that some students have qualitatively mentioned the load of the period being high when viewed in combination with activities of the other course (ML2306) that run in parallel.

Some classroom sessions were reserved for group activities which was based on students' comment in previous years. This might have created a perception that time and effort needed outside of scheduled hours might have reduced.

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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?**

All students have passed the course without any re-exam needs. In the previous year there were a few students required to take re-exam and complete additional activities. The proportion of high scores (A and B) this year in relation to total students seating for the course was much higher than the proportion in the previous year. One likely explanation could be that most students had previous education well aligned to the contents of the course. Besides, it could be that with fewer students this year providing sufficient tutoring and support for those who need it was much fruitful.



## **STUDENTS' ANSWERS TO OPEN QUESTIONS**

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

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Students reported that they liked the group work and the mix of diverse activities. They also appreciated teachers' interactions and efforts (as in previous years).

They also liked the diversity of topics covered as introductory course, while commenting to improve explanation of connection between different parts.

Some asked for the course to be made a little more challenging and addition of even more real life examples in discussions.

Regarding online/physical sessions, students seem to prefer physical class sessions. They mentioned however, that it would be better to ensure having longer physical classroom sessions during the day since students have spent time commuting anyways, as most students commuted from Stockholm. Some also commented that having online session increased variety and sometimes reduced the need for commuting.

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## **SUMMARY OF STUDENTS' OPINIONS**

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

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Considering the comments from students through meetings and compiled digital responses (LEQ, Menti), it seems that the course improvements from previous rounds have been well appreciated. One clear pattern noticed is that the direction and nature of comments on content reflected the diversity (or similarity) of previous education of students.

Students have provided excellent inputs. Areas of strength are kept and the course and program management jointly tried to address areas of improvement.

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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.**

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The students generally seem to appreciate the course content and structure. It is apparent from their final comments and suggestion to next cohort of students that a lot can be gained from the group tasks and that making use of teachers' support to get help or clarification as early as needed helps a lot.

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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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All in all, approach and enthusiasm of teachers has been appreciated. Students with no previous education on sustainability seem to like this course because it provided a way to combine it with prior education in production (technical) subjects.

Inclusion of further challenging topics and (even more) continuous exercises seems to be an area for consideration.

We did not notice special differences in experience among 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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Here are a few areas of further development:

- Further development of digital examination
  - Development of teaching case development as part of the course
  - Given the pandemic situations study visits need further consideration for increased number and customisation etc.
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