



Report - SD2307 - 2021-03-16

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.

Learning Experience Questionnaire was submitted to all students. 50% answered.
Gender and disabled student data not visible because of lack of sufficient data.
Gender balance really poor, 1/15 female students. No female teachers or assistants.

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.)

Informal discussions have been carried out during the course.
Course responsible has met the student representative for the Railway Engineering programme for additional feedback from the students.

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 15 lectures (30 h), a project task (intro, intermediate oral presentation 3h, final oral presentation 3h, report), and a written exam (5 h). The project task is carried out in groups of 2-3 students, including a partial presentation, final presentation, and report. Some students are from UIUC and take the course remotely.

Changes from last year are focused on the examination and its coupling to the project task activities. The examination form was changed so that more general and conceptual questions were asked instead of very specific knowledge. Videos with exercise solving examples were also added for a smoother coupling between theory, project task (and finally examination).

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?

No, according to the students they did not use all the available workload but the lectures take already 6h/week and some of them report substantially less than that.

There are comments addressing the fact that the Project Task takes a lot of time, but as it is aligned with the course and the examination it is not considered an issue but the core of the 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?

Similar performance as previous years. The exam setup changed to a different one, more conceptual and less programmatic questions, but it still gave consistent results.

F E D C B A

11% 6% 17% 28% 33% 6%

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

-best aspects-

Stimulating, complete course with good teachers and great course-book. Project task is time consuming but also interesting and challenging. The nicest answer was "Kursen var bland de bästa vid KTH när det gäller kursupplägg och pedagogik. Kursboken var den bästa jag hittills har använt vid KTH. Lärarna var alla duktiga (både kunskaps- och lärandemässigt). Fritt projektarbete med möjligheter till kreativa lösningar."

-suggest to improve-

Exam later in the exam period would help with the project task deadline.

COVID related - cancelled study visits were sorely missed. Interaction with teachers was also poor because of online lectures. Technical solutions did not always work as intended. Bad audio/understanding in some lectures.

The nicest answer was "Nothing"

-suggestions for future students-

Start early with the project and follow it as suggested in the project plan.

Read the book as you advance in the course.

-open points-

some students would still like to join the study visit when it happens in the future.

SUMMARY OF STUDENTS' OPINIONS

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

In general the students are very happy with the course setup, content and teachers. They feel free to ask, comment and complain about things as they feel listened to.

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.

The short version (6 questions) of the LEQ was used in order to be able to compare results with other types of LEQ from previous years.

It looks as the course is highly appreciated, with most areas around 6/7 points. No significant gender differences can be detected because of the lack of data. No significant comments in each of these points.

1.- I worked with interesting issues - 6,4/7

4.- the work was challenging in a stimulating way - 6,1/7

15.- I was able to practice and receive feedback without being graded - 5,9/7

16.- The assessment was fair and honest - 6,1/7

21.- I was able to learn by collaborating with others - 5,9/7

22.- I was able to get support if I needed it - 6,3/7

The main development point from last year was successful, as there have not been any comments related to the examination form at all in the course evaluation.



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?

Not enough data to analyse.

PRIORITIZED COURSE DEVELOPMENT

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

Short term development includes the following:

- Further develop the coupling between lectures, project task and examination by adding "Key Concepts" for the different lecture areas.
- Push the exam later in the exam period for allowing the students some time between delivery of the task report and the actual exam.
- Integrate exercises in the lectures, as video recordings that can be reused on demand.

Long term development is preliminarily:

- Develop the course so that "Key Concepts" are central to the educational setup.
- > The Project Task is the core Time-On-Task of the course, so key concepts and exercises should be introduced pre-project introduction.
- > "Key Concepts" will allow for more uniformly poised questions in the final exam.
- > Create grading table coupling ILOs with the different examinations (Exam and Project Task).
- > Rethink the whole course setup and move forward from classic lectures towards more mentoring and coaching type of teaching around the Project Task, e.g. half-lecture pre-recorded with the basic "Key Concepts", then use the lecture for higher level theory, more advanced and complex concepts, and more practical applications even research-like questions
- Integrate Sustainable Development (SD) and Gender Equality (GE) in the ILOs
- > (SD) Introduce and integrate Life Cycle Analysis to the course (in the project task change economic analysis to RAM/LCC)
- > (SD) Soft rework of the ILOs to explicitly address sustainability in ILO4 and examination in both
- > (GE) Find suitable GE concepts to be introduced in the project task, related to railways or the transport system in general.

OTHER INFORMATION

Is there anything else you would like to add?

Thanks to the students that participated in the course, specially those that answered the questionnaire or gave feedback during the course. Without you the course development would be much worse!
