



## Report - SI2400 - 2021-07-07

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.

**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 created the LEQ questionnaire for the students soon after the completion of the course using the template provided by KTH. All aspects of gender, disabled students etc were included as per the template and full opportunity was provided to the students to obtain their feedback. The students were informed about the LEQ via the KTH portal and thereafter it was taken over by the web portal. We received the response via the portal on which this analysis is based.

### 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.)**

There were regular lectures and seminars during the course. There were 15 scheduled lectures that were given. There were 8 scheduled seminars that were given. The course was given online due to coronavirus restrictions.

### COURSE DESIGN

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

There were regular lectures and seminars as per schedule during the course. There were 15 scheduled lectures and 8 scheduled seminars, and all lectures and seminars were given online. This was one more lecture and one more seminar compared to last year, due to student requests. This change made it possible to comfortably teach all the course material. Student queries were also regularly addressed by emails and all efforts were made to clear their doubts. The whole course was given online as directed by the university, in view of the coronavirus restrictions. The recording of the lectures and the seminars were made available to the students on the canvas page. The slides of the lectures and seminars were also uploaded. The evaluation/assessment was done via the following format. Three sets of homework assignment were handed out as part of INL1. The homeworks were graded according to grades A,B,C,D,E,F,Fx. In order to get passing grade (E or higher), students had to obtain at least 40% on each of the problem sets. There was an oral exam at the end of the course as a part of TEN1. The possible grades for the oral exam was pass or fail. The final grade for students who passed both INL1 and TEN1 was the overall grade obtained by the student in INL1.

The formats for the lectures and seminars were the same as that followed in the past years. The format of the examination was also the same as that followed in the past years.

### 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?**

Yes, the students' workload approximately corresponds to the expected level on 40 hours/1.5 credits.

From the data submitted by students, we find that most of the students had been spending about 22 hours per week. The lectures and seminars were on-going for 8 weeks, while 2 additional weeks were needed to finish the homework assignments and the oral examination. There were 7,5 credits for this course. This means that students have spent on average around 40-45 hours/1.5 credits which is the expected workload level.



### **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 but two students were successful in passing both INL1 and TEN1 and hence passed the course. This is very similar to how students have performed. In the previous offerings of this course and no significant difference was seen. The two remaining students have been given re-exams in the form additional tasks.

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

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

The answers to the open questions was largely positive. The students found the course content (very) interesting and were happy with the home assignments. A general suggestion from a large fraction of students that responded was to have regular class-room lectures. This course is rather unsuitable for online mode of teaching. On average the students were happy with the course and say in their answers that they learned a lot of useful things in the course. Due to the low number of responses, it is difficult to draw any more specific conclusions.

### **SUMMARY OF STUDENTS' OPINIONS**

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

The students' response can be seen to be largely positive. They have opined very positively about the course content and the teaching during the lectures and the seminars. While they feel that the course is challenging, they say that it is challenging in a stimulating way. They enjoyed the course and learned a lot. They also feel that they achieved the intended learning outcome from the course. The students, however, also feel that they would have preferred to have classroom lectures and seminars. Furthermore, they would like to switch the course literature.

### **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.**

Given the challenge posed by the coronavirus crisis, we are happy with the outcome of the course. The biggest challenge for both the students as well as the teachers was the fact that the course had to be done online. It increased the workload of the teachers and made it challenging for the students to understand a rather difficult topic in physics. And yet, judging from the students' performance in the exams and their response to the LEQ, the overall impression of the course is very positive. Compared to last year, there was an increase in student fatigue due to the prolonged pandemic. This had an impact on student engagement and results.

### **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?

Online lectures are not ideal for this course. International students might have had some issue regarding background knowledge needed for the course, but it is not entirely clear. There were no students with disabilities, to the best of my knowledge. It seems only male students have responded to the LEQ. I cannot comprehend the reason for it.

### **PRIORITIZED COURSE DEVELOPMENT**

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

One of the background knowledge needed for the course is a very good understanding of Lie groups and Lie algebras. The students on average had a rather poor understanding of group theory in general and Lie groups and Lie algebras in particular. This affected their understanding of key concepts and as teachers we had to spend more time since aspects of group theory had to be discussed during the course, while the course is not on group theory. Furthermore, the course book should be switched to a more modern one. This has been requested by the students as well as the teachers.