

## Report - SI2410 - 2021-12-19

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): Sandhya Choubey, choubey@kth.se

#### 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.

The course evaluation questionnaire for the students was created after the course using the KTH template. Aspects of gender, disabled students etc were included as per the template and full opportunity was provided to the students to get their opinion. 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.)

The course was given via 18 scheduled lectures in the classroom. The attendance in the lectures was reasonable and the participation of the students in the lectures was excellent. There was a lot of discussion between the students and the lecturer and also amongst the students during the break and also after the lecture. Since the lectures were scheduled from 1500 to 1700, there was no time pressure on anyone and this facilitated discussions after the lecture.

#### **COURSE DESIGN**

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

There were 18 lectures during the course. These lectures were given in the classroom. The lectures helped explain to the students the key concepts of the course as well as the rigorous mathematical derivations and calculations which are integral part to the understanding of this subject. Most of the calculations were worked out on the blackboard, however, many excercises were left for the students to perform on their own. Students were encouraged to discuss with the lecturer in case they ran into problems in doing the excercises themselves. During the lectures, the students asked questions and even during the breaks there were discussions.

The examination comprised of three sets of homework problems as a 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 also an oral exam as TEN1. The oral exam was held on campus. The final grade for students who passed both INL1 and TEN1 was the overall grade obtained by the student in INL1.

The format of the course was not changed drastically as compared to last year. In particular, while there were only 14 lectures last year, this year we did 18 lectures instead. The examination process was essentially the same.

#### 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 workload on the students corresponded to the expected level. From the feedback received from the students on number of hours spent per week, combined with total duration of the course, one can see that the students have spent about 40 hours/ 1.5 credits.



## 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?

The students have done well on the course. No significant difference was noted compared to previous course offerings

## STUDENTS'ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

The students' response to the open questions are very positive. They were happy with the course and the lectures. They found the course interesting as well as challenging. They also say very positively about the lectures.

## SUMMARY OF STUDENTS' OPINIONS

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

From the response received from the students it appears that the students have a very good opinion of the course. They felt that the level of the course was high in a positive way. They were happy with the lectures and appreciated that everything was derived on the blackboard. They found the course interesting as well as challenging. They do suggest some improvements which we will surely try to implement.

## 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.

My general impression of the course is very positive. Quantum Field Theory in its full glory is a beautiful theory and it was an absolute pleasure sharing this beautiful theory with young minds. The students' interest level was very high throughout the course, which was probably the most satisfying aspect. Also interesting was the long discussions during and after class. There were 4 additional lectures this year, 18 this year against 14 last year. This was perfect as it allowed enough time for most aspects of the course being discussed in class in somewhat detailed manner.

## 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 information available.

#### PRIORITIZED COURSE DEVELOPMENT

What aspects of the course should be developed primaily? 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 need a good understanding of group theory in general and Lie groups and Lie algebras in particular. Students will benefit from a dedicated course on group theory.