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## Report - IH1611 - 2020-03-31

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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):**

Gunnar Malm, gunta@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.**

The course evaluation process is part of an on-going course development. Changes in the course design were introduced in 2016/17, and have been followed up in 2019 and the current round 2020. Changes in the grading system, new criteria, have been gradually introduced 2019-2020. The same LEQ set of questions has been used. The course round 2018 was an exception since it was handled by a substitute teacher.

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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.)**

N/A

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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 new criteria based grading system has been used for the first time. Detailed criteria have been published in the early part of the course and presented in class.

All other learning activities and examinations have been given in the same format as 2016/17 and 2019.

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**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?**

Out of 30 active student only two reported working more than 20 hours per week (full time for 7.5 hp).

The average was close to 14 h which is not unexpected, since many international and master students have a quite strong background in the area from their bachelor degrees.

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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?**

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Only 12 out of 30 students passed. The passing students all had grades C, B or A. Four students are expected to complete an Fx assignment within the allowed six weeks. Based in these numbers the passing rate is around 50 %. Only four students failed, grade F. An unusually large group, 10 students, did not attempt the exam. This was mainly caused by the ongoing covid-19 situation where students did not want to attend KTH in the final weeks of the course. These students performed well in the other parts of the course and passed the seminars and lab work (worth 3.0 hp).

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### STUDENTS' ANSWERS TO OPEN QUESTIONS

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

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Eight students provided positive feedback to the question "What was the best aspect of the course?"  
See the LEQ for details.

For the question

"What would you suggest to improve?"

it is clear that the level of the student recitations needs to be improved. The students need to get more feedback on correct solutions and the sessions could be more efficient in general.

The lecture could have more interactive elements, concept questions were used in some but not all lectures.

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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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The student attendance was high. I estimate to about 90% and the discussions after class and in breaks were really useful for me as a teacher. I did ask students for feedback on lecture speed, content etc.

The lowest response in the LEQ was 4.8 for the categories

17) background knowledge

Some nanotechnology students with a material chemistry or similar background might struggle in the course. The course is elective but there might be no other viable alternatives to choose from in this period.

Most students had a proper background and were able to follow the course at the designed level and pace.

20) opportunity to influence

The course design is quite strict and includes three mandatory elements:

seminars x2 & lab session x1 (1.5hp), student recitations x6 (1.5 hp),

All of these elements are examined (summative) so they cannot be skipped. I am looking for alternative more formative examination formats and better ways to provide individual feedback during the course.

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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 new criteria based grading system was better received than I hoped for and it also worked from a practical point of view. I am relatively convinced that the final grades are both fair and at the right level in comparison to previous course rounds.

Much more positive feedback was given than I have seen before!

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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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No, the LEQ data does not include any specific comments that have been given by any of these student categories.

This might be a problem in the LEQ since I should have received answers from female students, but they do not show up in that specific graph. All answers are labelled 'male'. Of course I do not know since the students are anonymous but the female students were active and interested in class.

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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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Formative assessment and individual feedback has very high priority.

Raising the level of the student recitations is ongoing work and the outcome is monitored carefully by me.

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#### **OTHER INFORMATION**

**Is there anything else you would like to add?**

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This is the best course round I have experienced so far and I think it shows that the course development has been going in the right direction for several years. The changes are now beginning to mature and that shows up.

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