

# Report - MH2300 - 2022-09-01

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):**

Pavel Korzhavij pavelk@kth.se and Claudio Lousada cmlp@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.**

Request for course evaluation LQ-6 was initiated by Claudio Lousada cmlp@kth.se but too few responses were received. However, several students have sent their comments (mostly positive) by e-mail. Therefore, this course analysis is based on these responses, as well as on the reflections of the teachers about the VT-2022 course round.

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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.)**

This round, the course was given in the hybrid format (some students followed the course online). For life-long learning courses the possibility for students to follow meetings online is crucial. Also, we provided the students with narrated lecture slides as yet another opportunity to study the course content. In the lectures, we made focus on the explanations and derivations of the basic formulae, as well on worked-out examples of their applications to specific materials. Traditionally, the two seminars were used as a mini-workshop where the literature studies of the student groups were presented; the first seminar was a rehearsal and the second was the workshop. Fuller results of the literature studies were submitted as written reports, authored by the student groups. After the workshop, a peer-review round was organized via e-mail, where the student groups were acting as an anonymous reviewers of the reports written by their peers. The teachers collecting the reviews, approached the authors with requests for corrections, and finally produced the volume of Workshop Proceedings. Also, there were several individual meetings with some students who wanted to clarify some questions. This is considered as a very positive sign, showing that there are motivated students who critically analyze the course content and really want to learn. At these additional meetings, some students expressed their interest in running research projects with the teachers.

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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.**

This course round, a standard version of the course was given. As usual, the list of project was updated, the pool of questions was enlarged, and some important corrections and additions were made in the course material. A gender equality perspective was endorsed in the formation of student groups which this year were more gender balanced than before. Importantly, sustainability aspects were fuller covered in the course, especially in its parts dealing with magnetic and catalytic materials.

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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?**

The students were kept busy during the course run and were motivated to distribute the workload evenly. Some students were self-motivated to do that, which shows that the same approach was also followed in the courses attended by these students previously. We do not have much feedback from the students this year to judge, but at least one student reported by e-mail that "...there were reasonable requirements while learning so much".

In the next round, we plan to re-design the two tests to make them easier to mark and grade, taking into account the increased number of course participants. The teachers' workload in the course should also be optimized.

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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?**

The student performance was good, as usual. Our internal statistics show that the students who followed the lectures and started their work on the literature study timely, got better marks than those who acted differently. This year, the course was announced timely and the schedule problems were early recognized and fixed, all thanks to the active communication with the course participants.

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**STUDENTS' ANSWERS TO OPEN QUESTIONS**

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

No information available from the course evaluations. However, some positive responses were received by e-mail.

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**SUMMARY OF STUDENTS' OPINIONS**

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

The students commented (in conversation and by e-mail) that they were quite satisfied with the scientific content of the course. Many liked the Workshop in Functional Materials, how it was organized and conducted (the teachers agree with that, as they both learn a lot in the Workshop, too). Then, the grading of the two tests took too long time, as well as editing the volume of proceedings. To be optimized in the next course round.

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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.**

It was good to publish the course early, this attracted more students. Introduction of sustainability aspects in the content was met very positively by the students, who also treated these aspects in their reports and presentations.

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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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The Workshop was unanimously pointed out by the students as the best moment in the course. Individual meetings with students were also very useful (also for the teachers). All interactive content of the course is fruitful. Lectures can still be made more interactive. But the biggest problem with the course (the bottleneck) are the two tests, whose grading takes the teachers a lot of time if there are many students. This must be optimized.

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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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The main conclusion to be drawn that it was right to focus on the students: what and how they learn in the course. Interactions like the Workshop are very fruitful. Active engagement of students during lectures is something that should be worked more. The accumulated pool of questions for the tests is large enough for making the grading procedure semi-automatic, here we will try to make some advances. The course content must be updated, as usual (next targets: Recycling and reuse of functional materials).

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