



## Report - MH2450 - 2022-01-07

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):**

Christopher Hulme, chrihs@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.**

Students were asked to complete an LEQ and provide any additional information by email. I also invited students to express any concerns or views during or after the course by email, by talking to me or to arrange a meeting.

A group (such as female/male, or Swedish/international students, etc.) are only identified if three or more respondents identify in that group. This is to protect the anonymity of respondents. Since there were only four respondents, it will only ever be possible to identify one group of each type (gender, nationality or students with disabilities). An overall mean of responses is also generated automatically. In this survey, responses were grouped into "male", Swedish master's students and students who consider themselves to have no disabilities.

**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.)**

Students were invited to request meetings or visit my office to express any views at any time during or after the course. No meetings took place.

**COURSE DESIGN**

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

There is an initial lecture that gives an introduction to the course. The course consists of three lectures on communication in academia, science and engineering: written communication; oral communication; graphic design and project planning. There is a fifth session on research methodologies given by KTH Library.

In addition to lectures, students perform a short (120 hours) research project under the supervision of a researcher at the Department of Materials Science. In 2021, all students did individual projects.

Students present a "problem formulation" after several weeks of work and then present their whole project after approximately 8 weeks in a seminar together with universities from other countries. In 2021, the seminar was held in Stockholm between KTH and NTNU (Trondheim, Norway). Students at KTH deliver an oral presentation, oppose another student's presentation, write a report and produce a poster. Due to time limitations, the posters were not used in the seminar but were still examined in the course.

**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?**

Two of the four respondents reported a workload of 18-20 hours per week, which corresponds to approximately 160 hours in total, or the appropriate workload.

One student reported a much higher workload (36-38 hours per week) and another reported only 6-8 hours per week. The variation depends very much on the project done by the student and each student's time commitment to the project. This is left up to students to decide for themselves as practice for managing time during their master's project, which takes place soon after the course concludes.



### **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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In 2021, the results for the cohort of eleven students was: 5A, 5B, 1C  
In 2020, the results for the cohort of seven students was: 2A, 3B, 2C

The results therefore seem stable.

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

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

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Overall, there were no major problems raised.

There was some dissatisfaction with one of the project supervisors. I will bear this in mind when assigning projects in 2022.

One student mentioned that I made several typographical errors on the slides. This has already been corrected ready for 2022.

It was also mentioned that the students were frustrated that the poster were not used in the seminar. This was simply due to time limitations placed on the seminar by NTNU who had to travel at specific times and brought a lot of students who had to present. I will definitely use the posters around the department! The main point of the poster assignment was to ensure students had a chance to practice applying graphic design principles to communicate research before they start any more in-depth research.

The seminar was also liked by the students, but they would like more universities involved - KTH and NTNU are working together to make this happen if possible for 2022!

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

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

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The course is well-liked overall, with some specific and individual problems, as could be expected for a course in which all students do individual projects under different supervisors. I will continue to refine the list of supervisors where possible for future years.

Students have requested more feedback throughout the course, and I will ask the project supervisors to provide this and give feedback as examiner on the problem formulation seminar.

One student wrote that the lecture about project planning did not relate to any intended learning outcomes. This is true in one sense, as none of the ILOs mention it, but it is a very necessary part of another ILO to "Plan and manage a technical project".

One student also requested more information about how to work with citation management software. This information is available by KTH Library and perhaps this is a good thing to focus on in the library session, rather than literature searches.

### **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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I was pleased that the students liked the course and seemed very engaged in lectures. The seminar was successful and the KTH students enjoyed it, despite "hosting" the seminar, so losing the opportunity for a free trip to another country! The lecture structure has been kept stable since 2020 and it seems to work well. The session on research methodologies was liked more by students who did not attend the KTH bachelor's programme, as KTH students had seen the content from KTH Library in other courses and on respondent even wrote "At KTH everyone should already know how to search". I tried to steer the session to more newer topics such as critical evaluation of information, but there was still (necessarily) a lot of "how to use the KTH Library website" and the Swedish students still seemed to be almost ahead of the lecturer during the session. I will keep trying to refine the session to be more advanced, but it is a good chance for international students to "catch up" with the students who completed the KTH bachelor's programme in terms of literature searching skills.



## **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 questions that received the lowest scores (least positive feedback) both got 5.0 / 7.0 and were:

"The course was challenging in a stimulating way"

"I was able to learn by collaborating and discussing with others"

The first of these indicates that some students find the course "easy" or not stimulating. While this is disappointing for a teacher to hear, it is worth remembering that the score is still "positive", as "4.0" is a natural answer and higher scores indicate agreement. I have attempted to make the course focus on communication skills and project planning, to help students improve these areas before starting a master's thesis, which is very unstructured compared to lecture courses. Some students may find this "easy" and others "boring", but it is still an important skill set and I believe the score given in response to the question are not a major concern. I will continue trying to make the lectures more stimulating, but a lot of the work is done inside individual projects, which are difficult for a course leader to control. The "male" group respondents much more positively to this question than the mean, which could indicate that respondents who did not identify as male found the course less stimulating. Similarly, Swedish students found the course less stimulating. It is not clear why this is, but it could be that they have already been trained in some of the skills covered during their bachelor's programme (although it is not clear what course in the bachelor's programme this would be).

The second of these is not a surprise, since all students worked on individual projects. This could be improved by holding discussion sessions for the students to discuss their progress and/or communication techniques. However, this would need to be added to the timetable and the project should be made shorter to allow that without exceeding the number of hours for the course. As with the previous question, male respondents were more positive and Swedish students less positive than the mean. The less positive responses from Swedish students is surprising, as they are more likely to know their supervisors from previous courses, as well as knowing other people with whom they could discuss their work.

## **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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I will prioritise development of the session given by KTH library to deliver more advanced information, possibly with a focus on citations and citation management.

I will aim to ensure all supervisors understand the course requirements better and that they are committed to the students, with the responsibility to deliver feedback on reports, etc. during the course.

Adding more universities will also help increase the usefulness of the course for students and help improve their networking opportunities. This was also identified in 2020 and is an area of continued effort.