

## **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.

In addition to the LEQ, two meetings have been held with student representatives of the course (the first meeting roughly a month after course start and the second at the end of the course). During these meetings the students have an opportunity – and are encouraged to – raise any issues related to the course (critique/suggestions etc.). Taking part in the meeting are course responsible teachers. Comments and issues brought up at the final meeting are corroborated with the answers from the LEQ. Aspects regarding gender and disabled students (JML) are not specifically addressed but included in the LEQ.

## **DESCRIPTION OF MEETINGS WITH STUDENTS**

Describe which meetings that has been arranged with students during the course and after its completion.

See above.

## **COURSE DESIGN**

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

Lectures (~10): some more directly related to the course literature and some more open but within general focus of the course.

Literature assignment (LIT1): seminars and written essay (analysis of one of the course books).

Project work (PRO1/PRO2): individual (part1) and group (part2) with written reports for each part and a presentation of group work. Part 2 builds on part 1.  
Focuses on sociotechnical systems and planetary boundaries.

Written examination (TEN1)

Possibility to get Pass with distinction (P+) on the individual examinations LIT1 and PRO1. One (or two) P+ will raise the final grade of the course with one (or two) step(s).

Changes implemented since last course: no specific changes were implemented.

## **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 LEQ answers suggest that the workload is slightly over what should be expected. However, the students did not confirm this during the meetings and did not indicate that it was a matter of concern. One reason may be that the course literature is rather extensive compared to more technical courses, which some students finds challenging and time consuming.

## **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?

TEN1: Ok, and evenly distributed (A-E).

LIT1/PRO1-2: Ok. A general expression is that when it comes to the written reports the varying background of the students at times leads to problems for some of the students with writing reports (both format and content) and how to handle references. A clearer linkage to the parallel course taken by these students – Research Methodology and Theory of Science and where scientific writing is included – has been discussed.

FINAL GRADE: Ok, no major differences from previous years.

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

What does students say in response to the open questions?

Lectures: Varied critique but in general the students like the lectures and see value in them. A suggestion to align the lectures more directly towards the course literature, has (again) been lifted. As we see it this is a balance as we would like the lecturers brought in to the course to have a rather large degree of freedom in relation to their specific field of expertise and research. Students with a BSc from KTH (Energi och miljö), think there is too much overlap in the lectures compared to lectures given during the BSc. A discussion has been initiated by the program director of TSUTM how to deal (solve) this (the critique also relates to other courses on the program).

LIT1: Overall positive critique.

PRO1-2: Positive, but mixed, critique. One aspect brought up, which has also been discussed during the course development during previous years, are that the topic selected for the project work i.e. what kind of sociotechnical system (STS) that the group choose to focus on, make the assignment more or less “easy”. Since some STSs are easier to relate to the specific planetary boundaries, perhaps an idea would be that the teachers of the course would have a list of “suitable” STSs. As previously, the response to this is that there is a balance in relation to what the students are supposed to learn on the course.

Assessment templates: the students like the templates and think that these are a very useful part/tool when working with the different assignments. On the negative side, templates at the same time opens up for a more strict (less flexible) evaluation of the assignments where “one size has to fit all”, and this is also something brought up by some students.

Course literature: in general the students like the course literature, though some concerns have been raised regarding Wright and Boorse which tends to have a US focus.

TEN1: More than one bring up the suggestion of changing the current written exam into an open book exam. Which is under discussion and evaluation (but has been postponed during the Covid19 situation). Further, the students think that the format of the exam, specifically the division between E-level and C-level questions where a bit confusing and that the correction thus was unfair. Perhaps A-level could contribute to the C-level? Or have an E-level quiz, as a mid-term exam (e.g. in November after all the lectures), and then have the A and C level at the end, as a written exam. This will be looked into for the next course round.

Administration: Positive comments.

## **SUMMARY OF STUDENTS' OPINIONS**

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

Overall positive comments (regarding all parts/aspects of the course). Main critique related to written exam. What further stands out as a challenge is the diverse background of the students and how to address this as to give the different students full value of the course.

## **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.

Overall positive (values between 5.7-6.9). The students seem to appreciate the course (former students have commented on the value of this course in later courses on the program).

## **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 be? Are there significant differences in experience between:

- students identifying as female/male?
- international/national students?
- students with/without disabilities?

LEQ: 12 questions. Answers: 12/51 (24%)

Stronger/weaker: the response to the questions is rather evenly distributed ie no part that stands out.

International students seems in general to be more content with the course compared to the national students. Which is a pattern we have seen previously. A plausible explanation is the varying background of the students and to have the lectures/seminars on a "balanced" level (some think it is too basic, others think it is perfect or even to difficult). Which is a challenge for several courses of the program, and as stated above, something being discussed at program level. No major differences between female/male or for students with disabilities.

## **PRIORITIZED COURSE DEVELOPMENT**

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

- Ongoing discussion whether to replace the current written exam with an open book exam +possibly in combination with a Quiz on more basic knowledge (to be held mid-term).
- New course responsible teacher will take over 2022.

## **OTHER INFORMATION**

Is there anything else you would like to add?