

Report - AG1815 - 2022-05-31

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):

Anna Björklund (anndb@abe.kth.se) and Mattias Höjer (hojer@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.

Individual answers were collected through the course evaluation form (LEQ), response rate 20%.

All students were invited to join the course committee. One joined for a meeting in the middle of the course, two joined after the course when the evaluation was completed.

Students have also been encouraged to contact the course responsables during the course in case they had comments and/or questions.

Aspects regarding gender etc are covered by the default questions in the course evaluation form.

An important part of the course evaluation process has been a close cooperation and discussions about course design, relation to students etc with the other teachers/course assistants in the course.

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.)

See above

COURSE DESIGN

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

Examination

- Project work, 4.0 hp (A-F)
- Response papers and thematic seminars, 0.5 hp (P/F)
- Literature assignment, 2.5 hp (A-F)
- Attendance, 0.5 hp (P/F)

The course includes

- Lectures: 11 "live" lectures and 4 lectures consisting of only online mtrl. Lectures cover 1) The concept of sustainable development, the sustainability goals of society and societal challenges, 2) ICT and sustainable development - how ICT may be a positive driver for sustainable development, but also mean risks and negative impacts, 3) Innovations and business opportunities - examples with company perspective, 4) Environmental and sustainability assessment with systems perspective.
- Thematic discussion seminars (2). These cover themes from the lectures. Students prepare written assignments in advance that are discussed during the seminars.
- A group project (4-5 students/group). Projects are provided from industry or KTH researchers.
- Project seminars (3). Project groups present 1) early stage draft for oral feedback, 2) near-final draft for written peer review, and 3) final report.
- Individual literature assignment, where students write about ICT as a solution to sustainability problems

In 2022 the course was run digitally due to covid.

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 absolute majority of students report working 12-26 hrs per week. A few outliers report more or less working hours. The students who report very high workload are probably those that were very active, ambitious and engaged during the course and who also mentioned a profound personal interest in the topic. We assume that this was self-selected, and not something actually required to pass the course.

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 course uses continuous examination and is examined through projects, seminars and a writing assignment. All of these can be complemented during and after the course. Therefore, normally most students will eventually pass all assignments and complete the course. This year however, we experienced more students who struggled to complete in particular the last examination (Literature assignment). The impression was that they had not gained the necessary knowledge during lectures and seminars, to be able to write a good assignment. We believe that this was an effect of online-fatigue. Students appeared to be less focused and active than last year, which was also online. Therefore, despite some students expressing that they appreciated the online format of the course, all or most activities will be on campus in 2023 (if the covid situation allows).

STUDENTS' ANSWERS TO OPEN QUESTIONS

What does students say in response to the open questions?

Summary of main comments from students

Overall course design

- a lot of different activities to keep track of
- time consuming
- the course design was very helpful to avoid procrastinating
- compensation assignments when missing a course activity perceived as punishment
- too much examination
- too little time for reflection and discussion
- great course/one of the best courses at KTH so far
- vague examination requirements

Lectures

- dislike compulsory lectures
- compulsory attendance was good
- climate change not presented in an unbiased way, not open for criticism
- good lectures, appreciated the guest lecturers
- extremely stimulating, thought provoking topics

Project work

- took a lot of time, more than expected
- some ask for more precisely defined project tasks instead of open projects
- interesting to work with companies
- would prefer to get to choose project members

Course management

- timely replies from course coordinators
-

SUMMARY OF STUDENTS' OPINIONS

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

Comments brought up by students discussed during course committee meetings

Compulsory attendance

- Many students are annoyed by this. One reason may simply be that ICT students in general are not used to compulsory attendance
- Comment from course coordinators: The reason for compulsory attendance is that much of what is presented and discussed in lectures cannot easily be learned by reading. Students who do not attend lectures will perform worse in examination and will often not be able to contribute on equal ground in group projects. This affects the entire group. We however do have a flexible course design which allows student to not attend, but to compensate by doing written assignments instead. Still, compulsory attendance in lectures will be revised for 2023 and may be implemented in a different form.
- The students in the course committee suggested that we introduce some sort of bonus system for attending lectures, as this student group in general is more used to this approach. For instance "write a summary of lectures to receive bonus points for the home exam"

Status rapports in project work

- Weekly submission of status reports in project is perceived by some as a stressful thing. Too many submissions!
- Comment from course coordinators: The reason for having written status reports is that it serves as communication with teachers between supervision and as written documentation which allows follow up, both by groups and teachers in case problems arise. We will however revisit and possibly change the format of this for 2023.
- The students mention experience from another course of weekly oral status reports, which was seen as a positive thing. Maybe we should introduce something similar.

Uneven quality of supervision

- Students experienced very different level of support from supervisors
- Comment from course coordinators: We need to work with the group of teachers to reach a more even level and common understanding of what students should be able to expect from a supervisor.
- A possibility would be for instance to have a response time policy (max 2-3 days?) + clear info to students who to contact if problems arise (course coordinators!)

Grading of projects

- This year, some students (from two different groups which is more than normal) complained about perceived unfair grading of projects. They felt that there were free riders
- Students in the meeting said that they are not used to being graded in projects, but to have only pass/fail
- Comment from course coordinators: A possible alternative to graded projects would be to raise the limit for "Pass" in projects, and use only the individual assignment as basis for the final grade. Other options need to be explored as well. However, in most cases, grading of projects works fine

Conflicts in project groups

- More groups than normal had internal conflicts this year
- Comment from course coordinators: Reasons for this may be uneven ambition levels, conflicting attitudes, different experience of group collaboration
- We discussed different ways of differentiating groups, for instance
 - create groups depending on expressed ambition level and then somehow differentiate the type of project task. E.g. projects with companies and advanced requirements for deliveries, vs. limited and tailor made/prepared projects
 - students submit assignments before creating project groups, and those that score high or complete all assignments can form one group, others form another group

Projects

- Some students feel confused when working with very open project tasks
- Comment from course coordinators: Projects should be open, but we can put more efforts on clarifying and making sure that they are aligned with intended learning outcomes

Writing assignments

- Some students think that there are too many writing assignments in this course
- Comment from course coordinators: Practicing scientific writing was explicitly asked for by the program director of the masters' program when the course was developed, so this course is important in the program curriculum in that regard. It is an important part of the course, but this has not been explicit in the intended learning outcomes. This has been clarified in the new course plan for AL1523, valid from 2023. We will however make efforts to reduce writing assignments that are not perceived as meaningful and to clarify the purpose of the writing that needs to be done

Lectures

- Students suggested that we should invite alumni or others from ICT industry who work in practice with sustainable development
- Comment from course coordinators: Good idea. We are rearranging the lecture schedule for next year and strive to have more speakers from industry
- Students pointed out that the quality of lectures varies a lot. While some were very good, some were not
- Comment from course coordinators: Clarify better to lecturers what to cover in every lecture. Give better guidance on what is important in this course

Lack of room for criticism

- A couple of students in the survey were critical about not feeling that there was room to question things in the course
- Comment from course coordinators: This is sad and surprising, as students were always invited to ask questions during lectures and stay between and after lectures to discuss. This may be a lot easier when meeting on campus instead of online
- It is also extremely important that students with critical questions do not feel dismissed by teachers. We will talk to teachers and invited speakers about this
- We could possible include some sort of activity that addresses this in the seminars too
- Further, it may be important to add some sort of forum to make room for anonymous comments,

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.

The average rating from students in the course evaluation was lower than previous years. Overall, the general impression is that the course did not run as smoothly as normal this year. There was a bit more irritation among students about things that did not work well, more conflicts in project groups, and more students than normal did not pass the literature assignment but were required to complement Fx to pass. One reason is probably that a couple of things in the organisation of the course did not work well. But more importantly we sense that running the course on zoom was more problematic this year than the year before. We sensed a level of zoom-fatigue among students and a less focused attitude.

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?

The response rate is too low to identify different groups

PRIORITIZED COURSE DEVELOPMENT

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

- invite alumni/more connection to industry in lectures
 - revisit implementation of compulsory attendance in lectures
 - revisit amount of required writing
 - harmonize ambition level among supervisors
 - better communicate the point of having a rather formal written report as part of examination
-