



Report - AL2115 - 2019-06-05

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):

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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 course, taught for the third time in 2019, aims to provide the students with insights on socio-technical processes in system innovations and equip them with participatory methods to facilitate sustainability transitions of socio-technical systems. To this end, the course is composed of lectures, seminars, project-based work and home assignments. It is mandatory for the students taking the "Energy for Smart Cities" Master's Programme in and conditionally elective for students taking the "Sustainable Technology" Master's Programme.

The five lectures introduce the students to the socio-technical system concept, transdisciplinary approaches, future studies and topic of this year project work, Stockholm Urban Food system. The lectures thereby provide background and context to the project work (3,5 er, A-F), which is the main focus of the course. The project work consists of the design and implementation of a participatory backcasting project, addressing a real-life complex socio-technical challenge, this year focusing on the design of the future (by 2050) Stockholm urban food system. The project work is carried out in groups of four or five students who work together to generate a vision and pathway for a more sustainable future. The seminars are set up to guide the students through the participatory backcasting process, introducing each step of the process and then giving the students a chance to work on their study whilst having the opportunity to ask questions. Each project group is supervised every other seminar, alternating between different supervisors. The first seminar took place in Söderhallarna and Högdalen where the students have met stakeholders of Stockholm urban food system who provided them with data and initial input on trends and ongoing developments in the system. At two longer seminars (halfway through the course and at the end), the students presented their work, both process and results, with emphasis on creative presentation methods (e.g. short movies, role plays, interactive posters). Each group's results were also compiled into a study report and the students conduct individual reflections about the work process and what they had learned.

The two home assignments (HA1: 1,5 er & HA2: 1,0 er) aim to give the students the opportunity to familiarise and work individually with some of the key concepts presented in the course, in a way that is also meaningful in relation to the project work. The lectures and seminars count towards attendance (1,5 er). The design of HA1 was changed this year to enable better connection with the topic of the project work while keeping the overall focus on the literature about multi-level perspective (MLP). The design of HA2 was also slightly changed to increase the level of interactions between student groups and system stakeholders and contribute to the learning of the interview as a method for data collection.

The literature mainly consists of scientific papers provided via Canvas, but the students are also encouraged to seek out supplementary material on their own.



THE STUDENT'S 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 course is 7,5 credits in total, taught during one study period (P3). The students' workload should thus be about 20 hours/week. Several of the weeks, there were 4 hours or more of scheduled time (seminars and lectures). Although 15% of the respondents indicate a higher than expected workload, a total of 46% of the respondents indicate that they only spend between 9 and 11 hours/week on the course, suggesting that they did not spend that much additional time working on the project outside of the classroom hours. One of the reasons for this might be difficulties to coordinate with group members and finding time to meet, as has been indicated during meetings with the course evaluation board.

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?

Overall, the students succeeded well and in line with last year's experience. However, the home assignment submissions proved challenging and did initially not live up to the requirements. For the next course round, the scope of home assignment 1 will be reviewed and possibly updated to better align with the project work, to encourage the students to put more effort into it. The teachers will also stress the importance to read and integrate the course literature. As for the project work, the task is quite complex and student driven. The students all have different pre-knowledge and must find ways to cooperate and create something meaningful together with new people. Due to the various challenges associated with this type of work, some groups tended to do better in certain aspects whereas other groups did better in others.

OVERALL IMPRESSION OF THE LEARNING ENVIRONMENT

What is your overall impression of the learning environment in the polar diagrams, for example in terms of the students' experience of meaningfulness, comprehensibility and manageability? If there are significant differences between different groups of students, what can be the reason?

The majority of the students indicate that they worked with interesting issues and found the course challenging in a stimulating way. They also felt togetherness with others in the course and indicate that there was an open and inclusive atmosphere. Several students express that they appreciated the real-world application and getting the chance to explore a new methodology and new concepts and ways of thinking.

No significant difference between different groups can be observed from the diagram.

Women have given slightly higher marks by almost all categories, except for the constructive alignment (cognitive level) and clear goal and organisation (cognitive level). The reason for this is unclear.

ANALYSIS OF THE LEARNING ENVIRONMENT

Can you identify some stronger or weaker areas of the learning environment in the polar diagram - or in the response to each statement - respectively? Do they have an explanation?

The stimulating task, open and inclusive atmosphere of the course, regular feedback that helped to see the progress, possibilities to learn in different ways, collaboration and support are all indicated as stronger areas of the course's learning environment. This is gratifying to hear since the course design emphasises these aspects and a lot of efforts and dedication were invested in group supervision by the teachers.

However, the polar diagram indicates that the understanding of the subject matter, in particular the opportunity to learn from concrete examples, is somewhat weaker than other aspects of the course. The low number of examples is also highlighted in the open response questions as something to improve. One, somewhat unfortunate, reason behind the low number of examples is the challenge brought about by the limited time available in relation to the richness of the content addressed. It should also be noted that more examples were indeed available in the course literature, which some, however, indicate that they did not explore. From the other hand, providing too many examples could be counterproductive in the case of PB-based projects that very much focused on stimulating own creativity of the students and pro-activity in search for data and sources of inspiration (even though quite many of such are provided in the course literature and through communication with relevant stakeholders). In either case, it is a key area for improvement.

Variation and participation ("I had opportunities to influence the course activities") and belonging ("I felt togetherness with others on the course") were also given a somewhat lower average score. This has not emerged in the previous editions of the course and the reason for this remains unclear. This is also interesting in view of the fact that the second factors in both "Variation and participation" and "Belonging" categories have received higher than average marks.



ANSWERS TO OPEN QUESTIONS

What emerges in the students' answers to the open questions? Is there any good advice to future course participants that you want to pass on?

As the best aspect of the course, the students often named the topic chosen for the PW, Stockholm urban food system 2050. The students also mentioned inclusiveness of the course, challenging nature of the course, openness for new ideas and openness of the conversations among the best aspects of the course.

When suggesting potential improvements, the students have named willingness to have more supervision time with teachers, simplification /reducing amount of the provided literature, and changing lecturing style. While the first is difficult to provide within the current resources allocated to the course (and it should be noted that course already includes substantial supervision time), this still can be considered in case of a more considerable restructuring of the course (e.g. introducing "flipped classroom" approach). To facilitate work with the literature, it can be restructured indicating clearly what belongs to additional reading for those interested to develop a deeper understanding of certain concepts or theories. Format of the lectures was also identified by the teachers as something to be changed in order to allow more time for reflexive and critical discussions about the concept and modules of the mPB. This would, however, again require a more substantial redesign of the course.

The recommendations provided for future participants include importance to follow modules of the mPB framework using the online mPB manual, attendance of all seminars and efficient use of time during the seminars, be creative and innovative, try to stick to the pace of the course, and start to work on PW as early as possible.

As previously mentioned, the respondents highlight that the group dynamics had a significant impact on their overall experience of the course. From this, an important recommendation to future participants is to invest some time and effort in getting to know each other, and to plan and structure the work process with regular meetings.

PRIORITY COURSE DEVELOPMENT

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

One of the main priorities for the course development is further improvement of the connection between the home assignments and the project work to allow for better integration of the related literature and achievement of the intended learning outcomes. Another important priority is stimulation of reflexivity by students when implementing modules of the mPB and working with the course literature. This might, for example, mean change of the lectures format towards "flipped classroom" approach when students will have to prepare for the lectures in advance and will need to critically discuss new concepts during activities in class under the supervision of experienced teachers. At the same time, this should not lead to increased workload for teachers, considering that the current course design is already rather time and resource-consuming.

Further development of the newly introduced mPB online manual (<http://mpb.urbant.org/>) would be beneficial for the course. The current version of the manual has received extremely positive feedback for the students for its usefulness in preparation and during the seminars in class. Further advancement of the manual could include the development of a consistent set of examples to illustrate each module of the mPB framework.

Introduced for the first time "group contracts" seem to have a positive influence on well-functioning group dynamics, however no explicit evaluation of this approach was undertaken (the use of such contracts was recommended but not mandatory for the project groups this time).

OTHER INFORMATION

Is there anything else you would like to add?

The introduced this year for the first time on-line manual on the modular Participatory Backcasting (mPB), was very positively evaluated by the students. They have mentioned the usefulness of the manual both during the seminars, work in groups, and in preparation for the seminars.

Canvas was said to work very well.

Kursdata 2019-06-05

AL2115 - Tvärvetenskapliga metoder för innovativa systemåtgärder, VT 2019

Kursfakta

Kursen startar:	2019 v.3
Kursen slutar:	2019 v.11
Antal högskolepoäng:	7,5
Examination:	ASS1 - Inlämning, 1,5, betygsskala: P, F ASS2 - Inlämning, 1,0, betygsskala: P, F ATT1 - Närvaro, 1,5, betygsskala: P, F PRO1 - Projekt, 3,5, betygsskala: A, B, C, D, E, FX, F
Betygsskala:	A, B, C, D, E, FX, F

Bemanning

Examinator:	Miguel Mendonca Reis Brandao <miguelb@kth.se>
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Assistenten:

Antal studenter på kursomgången

Registrerade:	0
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Prestationer (endast registrerade studenter)

Examinationsgrad ¹ [%]	Det finns inga kursresultat inrapporterade
Prestationsgrad ² [%]	Det finns inga kursresultat inrapporterade
Betygsfördelning ³ [%, antal]	Det finns inga kursresultat inrapporterade

1 Andel godkända studenter

2 Andel avklarade poäng

3 Betygsfördelning för godkända studenter